



NANDHA
ENGINEERING COLLEGE
An Autonomous Institution Affiliated
to Anna University, Chennai

NBA

National Board of Accreditation

Self Assessment Report (SAR)

*Department of
Mechanical Engineering*

CAY – 2021 - 2022



SELF ASSESSMENT REPORT (SAR)

**FOR ACCREDITATION OF
UG ENGINEERING PROGRAMME –
MECHANICAL ENGINEERING
(TIER-I)**

Submitted to



NATIONAL BOARD OF ACCREDITATION

New Delhi



NANDHA ENGINEERING COLLEGE

An Autonomous Institution Affiliated to Anna University, Chennai

DECEMBER 2022

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PART - A
INSTITUTIONAL INFORMATION



PART A: Institutional Information**1. Name and Address of the Institution: Nandha Engineering College (Autonomous)**

Perundurai Main Road

Vaikkaalmedu

Pitchandampalayam (PO)

Erode - 638052

Tamil Nadu

Website: www.nandhaengg.orgE-Mail: info@nandhaengg.org,nandhaengg@rediffmail.com

Phone No. : 04294 – 225585, 226393

2. Name and Address of the Affiliating University: Anna University

Guindy, Chennai

Tamil Nadu – 600025

Website : www.annauniv.edu

E-Mail: registrar@annauniv.edu

Ph: 044 – 22357004, 22357264, 22357265

3. Year of establishment of the Institution: 2001**4. Type of the Institution:**

Institute of National Importance

University

Deemed University

Autonomous

Autonomous Status granted in the year : 2013

Autonomous status Renewed : 2018

Any other (Please specify) : NAAC - Re-accredited (2nd Cycle) with A+ Grade

Note:

- a. In case of Autonomous and Deemed University, mention the year of grant of status by the authority.
- b. In case of University Constituent Institution, please indicate the academic autonomy status of the Institution as defined in 12th Plan guidelines of UGC. Institute should apply for Tier 1 only when fully academically autonomous.

5. Ownership Status:

Central Government	<input type="checkbox"/>
State Government	<input type="checkbox"/>
Government Aided	<input type="checkbox"/>
Self - financing	<input checked="" type="checkbox"/>
Trust	
Society	<input type="checkbox"/>
Section 25 Company	<input type="checkbox"/>
Any Other (Please specify)	<input type="checkbox"/>

Provide Details:**SRI NANDHA EDUCATIONAL TRUST**

Year of Establishment : 1992

Chairman : Thiru. V.SHANMUGAN, B.Com.,

Secretary : Thiru. S. Nandakumar Pradeep, Thiru. S. Thirumoorthi,

E-mail ID : secretary@nandhainstitutions.org

Phone : 04294-226397



6. Other Academic Institutions of the Trust/Society/Company etc., if any:*Table A.6*

S.No.	Name of the Institution(s)	Year of Establishment	Programs of Study	Location
1.	Nandha College of Pharmacy	1992	Pharm D., B.Pharm., D.Pharm., M.Pharm., Ph.D.	Koorapalayam Pirivu, Erode
2.	Nandha College of Physiotherapy	1993	B.P.T, M.P.T	
3.	Nandha Polytechnic College	1998	Diploma courses	Vaikkaalmedu, Erode
4.	Nandha School of Nursing	1998	Diploma in General Nursing & Midwifery	Koorapalayam Pirivu, Erode
5.	Nandha Arts and Science College	2000	UG, PG, M.Phil., Ph.D.	
6.	Nandha Matric. Higher Secondary School	2002	LKG to X Standard, H.Sc.	
7.	Nandha College of Education	2006	B.Ed.	
8.	Nandha Teacher Training Institute	2006	D.El.Ed	
9.	Nandha College of Nursing	2007	B.Sc., M.Sc., Diploma(Nursing)	
10.	Nandha College of Technology	2008	B.E., B.Tech., M.E., M.B.A.	Vaikkaalmedu, Erode
11.	Nandha Central School	2009	Montessori : M - I, II and III , Primary- Middle – Senior	Koorapalayam Pirivu, Erode
12.	Nandha Central City School	2010	Montessori : M - I, II and III , Primary - Middle - Senior	Erode
13.	Nandha Institute of Allied Health Sciences	2017	B.Sc., Diploma in Medical Lab Technology	Koorapalayam Pirivu, Erode
14.	Nandha Academy of Allied Health Sciences	2017	Bachelor of Operation Theater and Anesthesia Technology, Bachelor of Accident and Emergency Care Technology, Bachelor of Cardiac Care Technology, Bachelor of Radiology Imaging Technology, Diploma in Medical Laboratory Technology	
15.	Nandha Institute of Health Science	2017	Diploma in Health Inspector/ Sanitary Inspector	
16.	Nandha Naturopathy and Yoga	2018	BNYS	



	Medical College and Hospital			
17.	Nandha Siddha Medical College and Hospital	2019	BSMS	Vaikkaalmedu, Erode
18.	Nandha Ayurveda Medical College and Hospital	2019	BAMS	Koorapalayam Pirivu, Erode
19.	Nandha Dental College and Hospital	2022	BDS	Pitchandampalayam Post Erode-638 052

7. Details of all the programs being offered by the institution under consideration:

Table A.7

S. No.	Program Name	Name of the Department	Year of Start	Intake	Increase/ Decrease in intake, if any	Year of Increase/ Decrease	AICTE Approval	Accreditation Status*
1.	B.E.	Computer Science and Engineering	2001	45	-	-	732-52-391(E)/2001 [02.07.2001]	IV CYCLE NBA - Granted provisional accreditation for three years for the period 01.07.2021 to 30.06.2024
					60	2002	732-52-391(E)/ET/2001 [19.06.2002]	III CYCLE NBA - Granted provisional accreditation for three years for the period 2016 - 2017 to 2018 – 2019 upto 30.06.2019
					90	2005	732-52-391(E)/ET/2001 [19.09.2005]	
					120	2006	732-52-391(E)/ET/2001 [13.07.2006]	II CYCLE NBA – Granted



								provisional accreditation for two years for the period 18.09.2013 to 17.09.2015 I CYCLE NBA - Granted provisional accreditation for three years for the period 19.07.2008 to 18.07.2011
						2014	Lr.No:467/CAI/ Permanent Affln./2014-15 [30.10.2014] Permanent ID:1-6156963	
2.	B.E.	Electronics and Communication Engineering	2001	60	-	-	732-52-391(E)/2001 [02.07.2001]	IV CYCLE NBA - Granted provisional accreditation for three years for the period 01.07.2021 to 30.06.2024
					90	2003	732-52-391(E)/ET/2001 [30.04.2003]	
					120	2006	732-52-391(E)/ET/2001 [13.07.2006]	
					180	2011	1-401649442/2011/EOA[01.09.2011]	



					120	2017	F.No:1-3324823115/2017/EOA[10.04.2017] Permanent ID:1-6156963	upto 30.06.2019 II CYCLE NBA - Granted provisional accreditation for two years for the period 18.09.2013 to 17.09.2015 I CYCLE NBA - Granted provisional accreditation for three years for the period 19.07.2008 to 18.07.2011
3.	B.Tech.	Information Technology	2001	45	-	-	732-52-391(E)/2001 [02.07.2001]	II CYCLE NBA - Granted provisional accreditation for three years for the period 01.07.2021 to 30.06.2024 I CYCLE NBA - Granted provisional accreditation for two years for the period 18.09.2013 to 17.09.2015
					60	2002	732-52-391(E)/ET/2001 [19.06.2002]	
4.	B.E.	Electrical and Electronics Engineering	2002	60	-	-	F.No. 732-52-391 (E)/ET/2001 [19.06.2002]	II CYCLE Not accredited 4.11.2016 to 6.11.2016 I CYCLE NBA - Granted Granted provisional accreditation for two years for the
					120	2011	F.NO SOUTHERN/1-401649442/2011/EOA [01.09.2011]	
						2013	Lr.No:087/CAI/ Permanent Affln./2013-14 [13.05.2014]	



							Permanent ID:1-6156963	period 18.09.2013 to 17.09.2015
5.	B.E.	Mechanical Engineering	2005	60	-	-	F.NO 732-52-391 (E) / ET/2001 [30.09.2004]	I CYCLE NBA - Granted provisional accreditation for two years for the period 18.09.2013 to 17.09.2015
					90	2009	F.NO 732-52-391 (E) / ET/2001 [08.08.2009]	
					120	2011	F.NO. Southern/1-401649442/2011/EOA Dt:01.09.2011	
					180	2013	F.NO. Southern/1-1390227912/2013 EOA [19.03.2013]	
					120	2019	F.No. Southern/1-4267032040/2019/EOA [29.04.2019]	
6.	MBA	Master of Business Administration	2005	60	-	-	F.NO 732-52-391 (E)/ ET/2001 [30.09.2004]	I CYCLE 09.04.2021 to 11.04.2021 Not accredited
					90	2009	LR.NO.AUCBE/R/AFFILIATION/UG /PG/306/2009-10 [01.10.2009]	
					60	2010	LR.NO.AUTCBE/CA/CAI/AFFILIATION/UG/P/1407/306/2010 [22.10.2010]	
7.	MCA	Master of Computer Applications	2006	60	-	-	730-52-391(E)/ET/2001 [19.09.2005]	Not eligible for accreditation
					30	2019	Southern/1-4267032040/2019/EOA [29.04.2019]	
8.	M.E.	Computer Science and Engineering	2006	18	-	-	732-52-391(E)/ET/2001 [13.07.2006]	Not eligible for accreditation
					36	2014	F.No: 1-2016786981/2014/EOA [04.06.2014]	



					18	2017	F.No:1-3324823115/2017/EOA[10.04.2017] Permanent ID:1-6156963	
9.	B.E.	Civil Engineering	2009	60	-	-	F.No. 732-52-391 (E) / ET/2001 Dt:08.08.2009	NBA- Granted Provisional Accreditation for three years for the period 2016-17 to 2018-19 i.e., 30.06.2019
					120	2013	F.No. Southern/1-1390227912/2013/EOA Dt:19.03.2013	
					60	2018	F.No. Southern/1-3512808757/2018/EOA Dt:10.04.2018	
10.	M.E.	Embedded System Technologies	2010	18	-	-	F.NO SOUTHERN/1-6156963/2010/EOA [23.08.2010]	Not eligible for accreditation
11.	M.E.	Engineering Design	2010	18	-	-	F.No. Southern Region/1-6156963/2010/EOA [23.08.2010]	Not eligible for accreditation
12.	M.E.	VLSI Design	2011	18	-	-	1-401649442/2011/EOA [01.09.2011]	Not eligible for accreditation
13.	B.E.	Electronics and Instrumentation Engineering	2012	60	-	-	F.No. Southern/1-735489393/2012/EOA [10.05.2012]	Not eligible for accreditation
14.	M.E.	Structural Engineering	2013	18	-	-	F.No. Southern/1-1390227912/2013/EOA Dt:19.03.2013	Eligible but not applied
					24	2014	F.No. Southern/1-2016786981/2014/EOA Dt:04.06.2014	
					18	2018	F.No. Southern/1-3512808757/2018/EOA Dt:10.04.2018	
15.	B.E.	Agriculture Engineering	2017	60	-	-	F.No. Southern/1-3324823115/2017/EOA [10.04.2017]	Not eligible for accreditation
16.	B. Tech.	Chemical Engineering	2017	60	-	-	F.No. Southern/1-3324823115/2017/EOA [10.04.2017]	Not eligible for accreditation



17.	B.E	Biomedical Engineering	2018	60	-	-	F.No. Southern/1-3512808757/2018/EOA [10.04.2018] F.No. Southern/1-4267032040/2019/EOA [29.04.2019]	Not eligible for accreditation
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*** Write applicable one:**

Applying first time

- Granted provisional accreditation for two/three years for the period (specify period)
- Granted accreditation for 5/6 years for the period (specify period)
- Not accredited (specify visit dates, year)
- Withdrawn (specify visit dates, year)
- Not eligible for accreditation
- Eligible but not applied

8. Programs to be considered for Accreditation vide this application

Table A.8

S. No.	Program Name
1.	B.E. Electrical and Electronics Engineering
2.	B.E. Mechanical Engineering

9. Total number of employees:

A. Regular Employees (Faculty and Staff):

Table A.9a

Items		CAY 2021-22		CAYm1 2020-21		CAYm2 2019-20		CAYm3 2018-19	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Faculty in Engineering	M	112	123	120	125	105	107	107	114
	F	88	91	71	76	63	64	70	75
Faculty in Math, Science & Humanities teaching in engineering Programs	M	13	13	14	15	10	11	13	14
	F	23	23	22	23	20	20	25	26
Non-teaching staff	M	32	38	30	40	39	39	43	44
	F	31	36	29	31	29	32	30	37



Note: Minimum 75% should be Regular/Full Time faculty and the remaining shall be Contractual Faculty as per AICTE norms and standards.

The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Student Faculty Ratio.

CAY – Current Academic Year

CAYm1- Current Academic Year minus1 = Current Assessment Year

CAYm2 - Current Academic Year minus2 = Current Assessment Year minus 1

CAYm3 - Current Academic Year minus3 = Current Assessment Year minus 2

B. Contractual Staff Employees (Faculty and Staff): (Not covered in Table A.9a):

Table A.9b

Items		CAY 2021-22		CAYm1 2020-21		CAYm2 2019-20		CAYm2 2018-19	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Faculty in Engineering	M	-	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-	-
Faculty in Math, Science & Humanities teaching in engineering Programs	M	-	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-	-
Non-teaching staff	M	-	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-	-

10. Total number of Engineering Students:

Table A.10

UG – B.E. / B. Tech	CAY 2021-22	CAYm1 2020-21	CAYm2 2019-20	CAYm3 2018-19
Total no. of girls	652	650	604	615
Total no. of boys	1979	1900	1899	1913
Total no. of students	2631	2550	2503	2528



PG – M.E.	CAY 2021-22	CAYm1 2020-21	CAYm2 2019-20	CAYm3 2018-19
Total no. of girls	43	40	38	25
Total no. of boys	87	48	29	19
Total no. of students	130	88	67	44

Total number of MCA Students:

MCA	CAY 2021-22	CAYm1 2020-21	CAYm2 2019-20	CAYm3 2018-19
Total no. of girls	9	19	39	36
Total no. of boys	21	33	37	46
Total no. of students	30	52	76	82

Total number of MBA Students:

MBA	CAY 2021-22	CAYm1 2020-21	CAYm2 2019-20	CAYm3 2018-19
Total no. of girls	34	28	23	30
Total no. of boys	62	52	44	43
Total no. of students	96	80	67	73

(Instruction: The data may be categorized in tabular form separately for undergraduate, postgraduate engineering, other program, if applicable)

Note: In case the institution is running programs other than engineering programs, a separate table giving similar details is to be included.

11. Vision of the Institution:

To be a World Class Engineering and Management Institution in Leading Technological and Socio-Economic Development of the Country by enhancing the Global Competitiveness of Technical Manpower and by ensuring High Quality Technical Education through Dissemination of Knowledge, Insights and Intellectual Contributions.

Vision of the Institution (Revised in 2022)

To be an Institute of excellence providing quality Engineering, Technology and Management education to meet the ever changing needs of the society.



12. Mission of the Institution:

To provide value-based technical education and mould the character of younger generation.

Mission of the Institution (Revised in 2022):

- To provide quality education to produce ethical and competent professionals with social Responsibility
- To excel in the thrust areas of Engineering, Technology and Entrepreneurship by solving real- world problems.
- To create a learner centric environment and improve continually to meet the changing global needs.

13. Contact Information of the Head of the Institution and NBA coordinator, if designated:

i. Name : Dr. N. Rengarajan

Designation: Principal

Mobile No. : 7373712234

Email id : principal@nandhaengg.org

ii. NBA Coordinator

Name : Dr. E.K. Mohanraj

Designation: Professor / Civil Engineering

Mobile No. : 7373714706

Email id : mohanraj.krishnasamy@nandhaengg.org



CRITERION 1

VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES



CRITERION 1	Vision, Mission and Program Educational Objectives	50
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1. VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES (50)

Self-Assessment (50)

1.1 State the Vision and Mission of the Department and Institute (5)

Self-Assessment (5)

VISION OF THE INSTITUTE

To be a world class Engineering and Management Institution in leading technological and socio-economic development of the country by enhancing the global competitiveness of technical manpower and by ensuring high quality technical education through dissemination of knowledge, insights and intellectual contributions.

MISSION OF THE INSTITUTE

To provide value-based technical education and mould the character of younger generation.

VISION OF THE INSTITUTE (Revised in 2022)

To be an Institute of excellence providing quality Engineering, Technology and Management education to meet the ever changing needs of the society.

MISSION OF THE INSTITUTE (Revised in 2022)

- To provide quality education to produce ethical and competent professionals with social responsibility.
- To excel in the thrust areas of Engineering, Technology and Entrepreneurship by solving real- world problems.
- To create a learner centric environment and improve continually to meet the changing global needs.

Website URL: <https://nandhaengg.org/vision-mission/>



VISION OF THE DEPARTMENT

To be a premier centre for learning in Mechanical Engineering in the country.

MISSION OF THE DEPARTMENT

Mechanical Engineering department is committed to

- To offer state-of-the-art undergraduate, postgraduate and research programmes in engineering.
- To develop skilled and employable graduates to meet the challenges in emerging fields of Engineering.
- To prepare the students for prosperous career in Engineering / Entrepreneurship by inculcating the leadership qualities with professional and ethical responsibilities for the benefit of the society.
- To encourage Research & Development in the thrust areas of Engineering.

VISION OF THE DEPARTMENT (Revised in 2022)

To be recognised as a centre of excellence in the field of Mechanical Engineering and to produce competent engineers with multi-disciplinary exposure to meet the changing needs of the society.

MISSION OF THE DEPARTMENT (Revised in 2022)

- To enrich technical knowledge and skills by imparting quality education with ethics and social responsibility.
- To empower the students in the thrust areas of Mechanical, Allied Engineering and Entrepreneurship in the continually changing global market.
- To provide a conducive learning environment for improving continually to cater the needs of the society.

Website URL: <https://nandhaengg.org/profile/>



Consistency of the Department Vision and Mission statements with the Institute statements.

In order to show the consistency of the vision and mission statements of the department and the Institute, the key phrases in the vision and mission statements are mapped and presented in the table below.

Table B.1.1. Consistency of Department Vision and Mission Statements with Institute Statements

Vision & Mission Components		Dept.	Vision	Mission			
			Premier center for learning in the country	State-of-the art programmes	Skilled & employable graduate	Leadership qualities & ethical responsibility	Research & Development
Institute							
Vision	World class Engineering Institute		✓	✓	✓	✓	✓
	Global competitiveness of technical manpower		✓	✓	✓	✓	✓
	High quality technical education		✓	✓	✓	✓	✓
Mission	Valued based technical education		✓	✓	✓	✓	✓
	Mould the character of young generation			✓	✓	✓	

The phrases marked with ‘tick’ in the cell of table are those phrases that have direct dependability and consistency with the department vision and mission statement. In particular, Table B.1.1 illustrates how each of the five key phrases in Mechanical Engineering department’s vision and mission statements map closely to the five components of the Institute’s vision and mission statements. This mapping is reviewed periodically for consistency with the needs of the stakeholders.



1.2 State the Program Educational Objectives (PEOs) (5)

Self-Assessment (5)

The Program Educational Objectives (PEOs) of the Mechanical Engineering department are listed below:

Table B.1.2. Program Educational Objectives (PEOs)

PEO1	Skilled Engineer	Graduates will be successful practitioners in solving industry's technological problems.
PEO2	Entrepreneur	Graduates will be entrepreneurs and contribute to the economic growth of the country.
PEO3	Higher Education and Research	Graduates will pursue higher studies in engineering or management successfully and prefer career paths in teaching/research.
PEO4	Professional and Ethical responsibilities	Graduates will function in their career with professional and ethical responsibilities.

1.3 Indicate where the Vision, Mission and PEOs are published and disseminated among stakeholders (15)

Self-Assessment (15)

The Vision, Mission and PEOs of the program are published and disseminated as described and listed in Table B 1.3 a among the following stakeholders

Internal Stakeholders

- Students
- Faculty Members and Supporting Staff
- Management

External Stakeholders

- Employers
- Industry
- Alumni
- Funding Agencies



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- Professional Bodies
- Parents

The Vision, Mission and PEOs are published and disseminated through

- College Website – <http://www.nandhaengg.org/about-us/vision-mission>
- Department Website - <https://nandhaengg.org/profile/>

❖ **Dissemination to the internal stakeholders**

Vision, Mission and PEOs are displayed in all prominent places of department such as HoD's chamber, Department notice boards, Faculty rooms, Classrooms, Library, Hostel, Laboratories, Laboratory Record Notebooks, Curriculum & Syllabus, Newsletters.

❖ **Dissemination to the external stakeholders**

Vision, Mission and PEOs are discussed in Board of Studies meeting, Parents meeting, Seminar/Workshop/International Conferences brochures, Symposium Souvenir and Alumni meeting.

Dissemination of Vision, Mission statements of the Institute and the Department along with PEOs to the various stakeholders are given in Table B.1.3a.



Table B.1.3a Dissemination of Vision, Mission statements of the Institute and the Department along with PEOs

S. No.	DISSEMINATION			
	BY	TO	CONTENT	PROCESS OF DISSEMINATION
1.	Head of the Department	Faculty members of the department and service Departments	<ol style="list-style-type: none"> 1. Vision and Mission statements of the Department 2. PEOs 3. Program Outcomes 4. Program Specific Outcomes 5. Awareness and Implementation of Bloom's Taxonomy levels in Teaching and Learning Process 6. Preparation of Course Delivery Plans 7. Assessment Systems and Tools 	Faculty meeting in the beginning of every semester and subsequent review meetings
2.	Head of the Department	Parents	<ol style="list-style-type: none"> 1. Vision and Mission statements of the Department 2. PEOs 	<ol style="list-style-type: none"> 1. Parents Meeting 2. Department News Letter 3. Department Website
3.	Academic Coordinator	Students of the Department	<ol style="list-style-type: none"> 1. Vision and Mission statements of the Department 2. PEOs 3. POs and PSOs 	<ol style="list-style-type: none"> 1. First day of every semester 2. Department Website 3. Laboratory Record Notebooks 4. Curriculum & Syllabus 5. Class Note Book
4.	Alumni Cell	Alumni	Vision and Mission of the Institute and Department	Alumni Meet
5.	Placement Cell	Employers	Vision and Mission of the Institute and Department	<ol style="list-style-type: none"> 1. On Campus Drive 2. Training Session

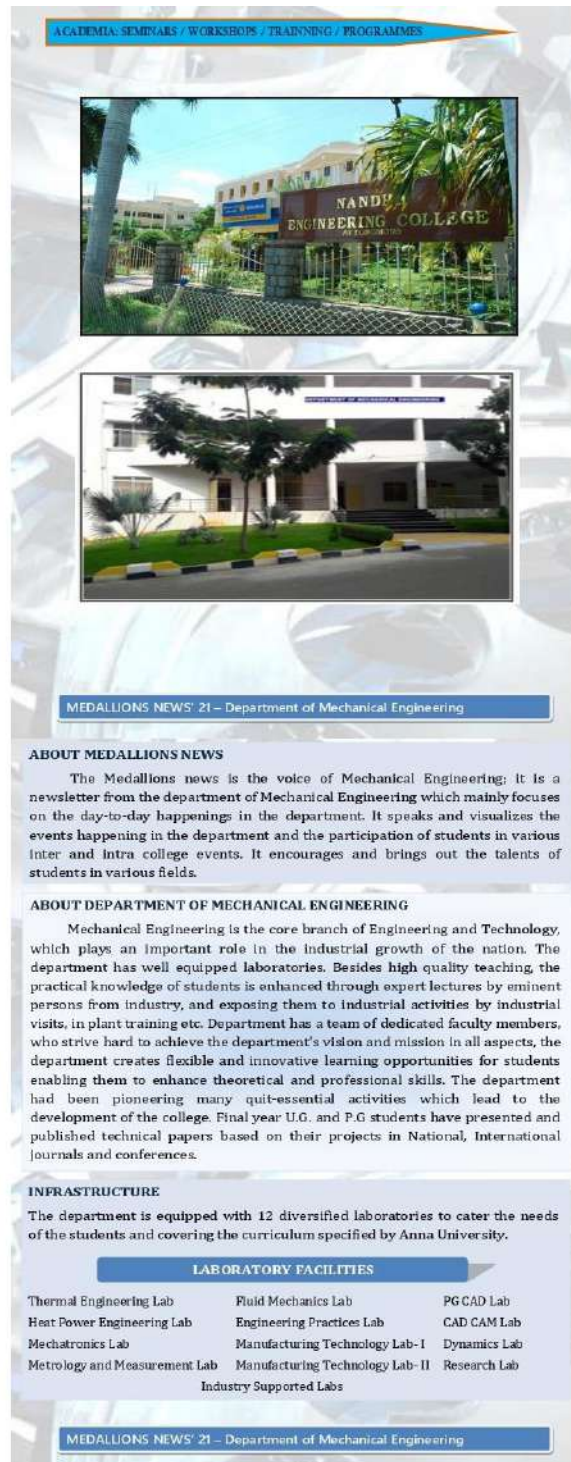
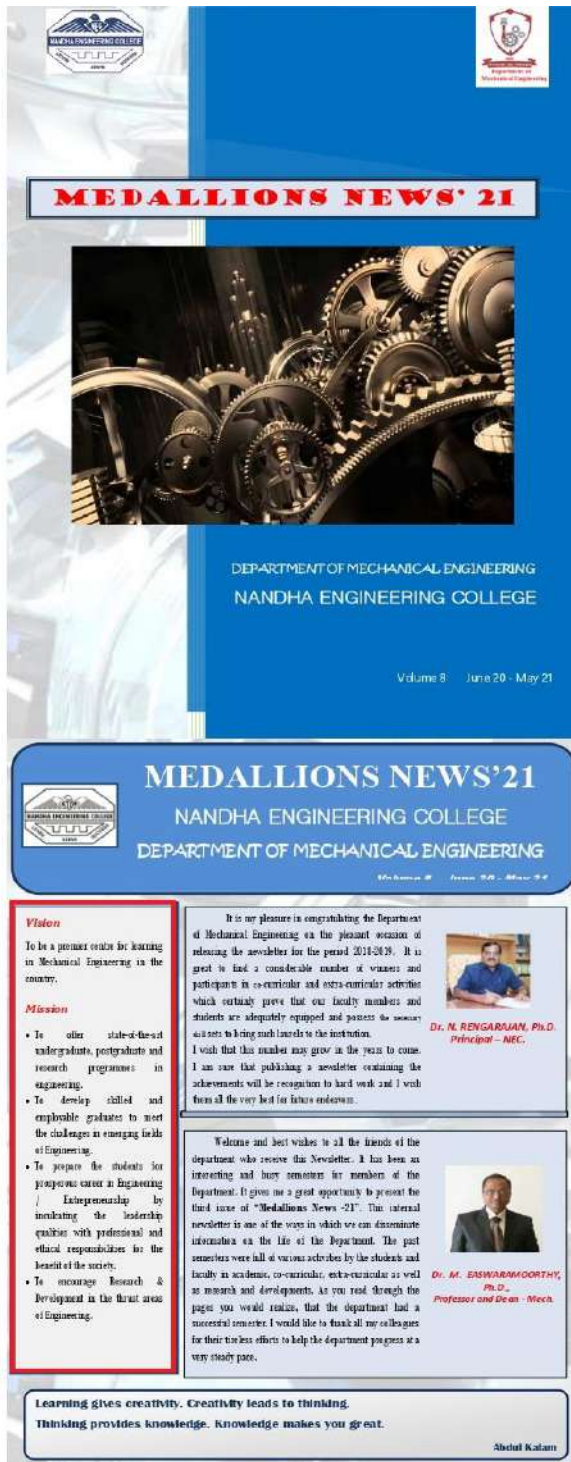



Figure B.1.3a Dissemination of Vision, Mission statements in News Letter

NANDHA ENGINEERING COLLEGE
(An Autonomous Institution affiliated to Anna University Chennai and approved by AICTE, New Delhi)
ERode-638 052, Tamil Nadu, India, Phone: 04294 – 225555



Curriculum and Syllabus
for
B.E. - MECHANICAL ENGINEERING [R17 CBCS]

(This Curriculum and Syllabi are applicable to Students admitted from the academic year 2017-2018 onwards)

AUGUST 2021

Dr. N. Rengarajan, B.Sc., B.Tech., M.E., Ph.D.
PRINCIPAL
NANDHA ENGINEERING COLLEGE
(Autonomous)
ERODE - 638 052.

Approved by Ninth Academic Council

PROGRAMME SPECIFIC OUTCOMES:

PS01: Ability to design electronics systems with required specifications using latest software packages
 PS02: Ability to identify sustainable materials and technologies for alternate engineered solutions
 PS03: Ability to apply the concepts and principles of manufacturing engineering to innovate and to create products and processes with sustainable manufacturing
 PS04: Ability to provide solution to challenges in the solar thermal systems.

Contribution: 1: Reasonable 2: Significant 3: Strong

MAPPING OF PROGRAMME EDUCATIONAL OBJECTIVES WITH PROGRAMME OUTCOMES

A broad relation between the Programme Educational Objectives and the Programme Outcomes is given in the following table:

PROGRAMME EDUCATIONAL OBJECTIVES	PROGRAMME OUTCOMES (PO)												
	a	b	c	d	e	f	g	h	i	j	k	l	
PEO1	3	3	3	3	3	3	1	2	2	1	3	2	
PEO2	3	3	3	3	2	3	1	2	2	2	1	1	
PEO3	3	2	3	3	2	2	2	2	1	2	2	3	
PEO4	3	3	3	3	3	2	1	2	3	2	2	3	
PEO5	3	3	2	2	2	3	2	3	1	1	2	1	

MAPPING OF PROGRAM SPECIFIC OUTCOMES WITH PROGRAMME OUTCOMES

A broad relation between the Program Specific Outcomes and the Programme Outcomes is given in the following table:

PROGRAM SPECIFIC OUTCOMES	PROGRAMME OUTCOMES (PO)												
	a	b	c	d	e	f	g	h	i	j	k	l	
PS01	3	3	3	3	3	2	1	1	3	3	2	2	
PS02	3	3	3	3	3	1	1	1	2	3	2	3	
PS03	3	2	3	3	3	2	1	2	3	2	3	3	
PS04	3	3	3	1	1	2	3	3	1	2	2	2	

NANDHA ENGINEERING COLLEGE
(Autonomous)
DEPARTMENT OF MECHANICAL ENGINEERING

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs):

PEO1: Skilled Engineer: Graduates will be successful practitioners in solving industry's technological problems
 PEO2: Entrepreneur: Graduates will be entrepreneurs and contribute to the economic growth of the country
 PEO3: Higher Education and Research: Graduates will pursue higher studies in engineering or management successfully and prefer career paths in teaching or research
 PEO4: Professional and Ethical responsibilities: Graduates will function in their career with professional and ethical responsibilities.

PROGRAM OUTCOMES:

At the end of a programme a students will be able to demonstrate ability to

a-l	GRADUATE ATTRIBUTES	PO No.	PROGRAMME OUTCOMES
a	Engineering Knowledge	PO1	An ability to apply knowledge of mathematics, science and engineering
b	Problem Analysis	PO2	An ability to design and conduct experiments, as well as to analyze and interpret data
c	Design and Development of Solutions	PO3	An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, ethical, safety, manufacturability and sustainability
d	Investigation of Complex Problems	PO4	An ability to function on multidisciplinary teams to solve complex problems
e	Modern Tool Usage	PO5	An ability to use the techniques, skills and modern engineering tools necessary for engineering practice
f	The Engineer and Society	PO6	An ability to infer societal, health, safety, legal & cultural issues and consequent responsibilities relevant to the professional engineering practice
g	Environment and Sustainability	PO7	An ability to explain, compare and summarize the impact of engineering solutions for sustainable development with societal and environmental perspective
h	Ethics	PO8	An understanding of professional and ethical responsibility
i	Individual and Team Work	PO9	An ability to function effectively as an individual / team in different environments
j	Communication	PO10	An ability to communicate effectively
k	Project Management and Finance	PO11	An ability to apply knowledge of engineering and management principles to the projects
l	Lifelong Learning	PO12	An ability to recognize the need for life-long learning

Approved by Ninth Academic Council

REGULATIONS - 2017 (R17) CHOICE BASED CREDIT SYSTEM (CBCS)
B.E. MECHANICAL ENGINEERING
 CURRICULA: I - VIII SEMESTERS SYLLABI: I - VIII SEMESTERS

SEMESTER - I												
Sr.	COURSE No.	COURSE CODE	COURSE TITLE	CATEGORY	PREREQUISITE	CONTACT PERIODS	L	T	P	C		
THEORY												
1	17YA01		Professional English - I	HS	-	4	2	0	2	3		
2	17YB01		Calculus and Solid Geometry	BS	-	5	3	2	0	4		
3	17YB01		Physics for Engineers	BS	-	3	3	0	0	3		
4	17YB01		Applied Chemistry	BS	-	3	2	0	0	3		
5	17YB01		Engineering Graphics	ES	-	4	2	2	0	3		
6	17EC02		Basic Electrical, Electronics and Instrumentation Engineering	ES	-	3	3	0	0	3		
PRACTICALS												
7	17YB01		Physics and Chemistry Laboratory	BS	-	4	0	0	4	2		
8	17YB01		Engineering Practices Laboratory	ES	-	4	0	0	4	2		
9	17GE01		Personal Values	HS	-	2	0	0	2	0		
						TOTAL	32	16	4	12	23	

SEMESTER - II												
Sr.	COURSE No.	COURSE CODE	COURSE TITLE	CATEGORY	PREREQUISITE	CONTACT PERIODS	L	T	P	C		
THEORY												
1	17YA02		Professional English - II	HS	17YA01	4	2	0	2	3		
2	17YB02		Complex Analysis and Laplace Transform	BS	17YB01	5	3	2	0	4		
3	17YB02		Mechanics of Solids	BS	17YB01	3	3	0	0	3		
4	17YB02		Environmental Science	BS	-	3	3	0	0	3		
5	17YB02		Engineering Mechanics	ES	-	5	3	2	0	4		
6	17YB02		Problem Solving and Python Programming	ES	-	3	3	0	0	3		
PRACTICALS												
7	17YB02		Computer Aided Modeling and Drafting Laboratory	ES	17YB01	4	0	0	4	2		
8	17YB02		Problem Solving and Python Programming Laboratory	ES	-	4	0	0	4	2		
9	17GE02		Interpersonal Values	HS	17GE01	2	0	0	2	0		
						TOTAL	33	17	4	12	24	

Approved by Ninth Academic Council

Figure B.1.3b Dissemination of PEOs, POs and PSO in Curriculum & Syllabus



NANDHA ENGINEERING COLLEGE
(AUTONOMOUS)
ERODE-638052
BONAFIDE CERTIFICATE

Register No.

Certified that this is the bonafide Record of work done by
..... of **Fifth semester**
B.E. Mechanical Engineering branch during the academic year **2022 - 23**
in the **17ME14 - HEAT AND MASS TRANSFER LABORATORY**.

Faculty Charge: _____ Head of the Department

Submitted for the End Semester Practical Examination held on.....

Internal Examiner: _____ External Examiner: _____

1

NANDHA ENGINEERING COLLEGE
(AUTONOMOUS)

DEPARTMENT OF MECHANICAL ENGINEERING

VISION OF THE INSTITUTION:

To be an Institute of excellence providing quality Engineering, Technology and Management education to meet the ever changing needs of the society.

MISSION OF THE INSTITUTION:

- To provide quality education to produce ethical and competent professionals with social responsibility
- To excel in the thrust areas of Engineering, Technology and Entrepreneurship by solving real-world problems.
- To create a learner-centric environment and improve continually to meet the changing global needs.

DEPARTMENT OF MECHANICAL ENGINEERING VISION

To be recognized as a centre of excellence in the field of Mechanical Engineering and to produce competent engineers with multi-disciplinary exposure to meet the changing needs of the society.

DEPARTMENT OF MECHANICAL ENGINEERING MISSION

- To enrich technical knowledge and skills by imparting quality education with ethics and social responsibility.
- To empower the students in the thrust areas of Mechanical Allied Engineering and Entrepreneurship in the continually changing global market
- To provide a conducive learning environment for improving continually to cater the needs of the society.

2

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The graduates of Mechanical Engineering will be

- PEO1: Skilled Engineer:** Graduates will be successful practitioners in solving industry's technological problems.
- PEO2: Entrepreneur:** Graduates will be entrepreneurs and contribute to the economic growth of the country.
- PEO3: Higher Education and Research:** Graduates will pursue higher studies in engineering or management successfully and prefer career paths in teaching/research.
- PEO4: Professional and Ethical responsibilities:** Graduates will function in their career with professional and ethical responsibilities.

PROGRAMME OUTCOMES (POs)

- PO 1: Engineering knowledge:** An ability to apply knowledge of mathematics, science and engineering.
- PO 2: Problem analysis:** An ability to design and conduct experiments, as well as to analyze and interpret data
- PO 3: Design / development of solutions:** An ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, ethical, safety, manufacturability and sustainability.
- PO 4: Conduct investigations of complex problems:** An ability to function on multidisciplinary teams to solve complex problems
- PO 5: Modern tool usage:** An ability to use the techniques, skills and modern engineering tools necessary for engineering practice.
- PO 6: The engineer and society:** An ability to infer societal, health, safety, legal & cultural issues and consequent responsibilities relevant to the professional engineering practice
- PO 7: Environment and sustainability:** An ability to explain, compare and summarize the impact of engineering solutions for sustainable development with societal and environmental perspective
- PO 8: Ethics:** An understanding of professional and ethical responsibility.

3

- PO 9: Individual and team work:** An ability to function effectively as an individual / team in different environments
- PO 10: Communication:** An ability to communicate effectively.
- PO 11: Project management and finance:** An ability to apply knowledge of engineering and management principles to the projects
- PO 12: Life-long learning:** An ability to recognize the need for life-long learning

PROGRAM SPECIFIC OUTCOMES (PSOs)

- PSO 1:** Ability to design mechanical systems with required specifications using latest software packages.
- PSO 2:** Ability to identify sustainable materials and technologies for alternate engineered solutions.
- PSO 3:** Ability to apply the concepts and principles of manufacturing engineering to innovate and to create products and processes with sustainable manufacturing.
- PSO 4:** Ability to provide solution to challenges in the solar thermal systems

4

Figure B.1.3c Dissemination of PEOs, POs and PSO in Laboratory Record



1.4 State the process for defining the Vision and Mission of the Department, and PEOs of the program (15)

Self-Assessment (15)

Process for defining the Vision and Mission of the Department is presented as a flowchart followed by description.

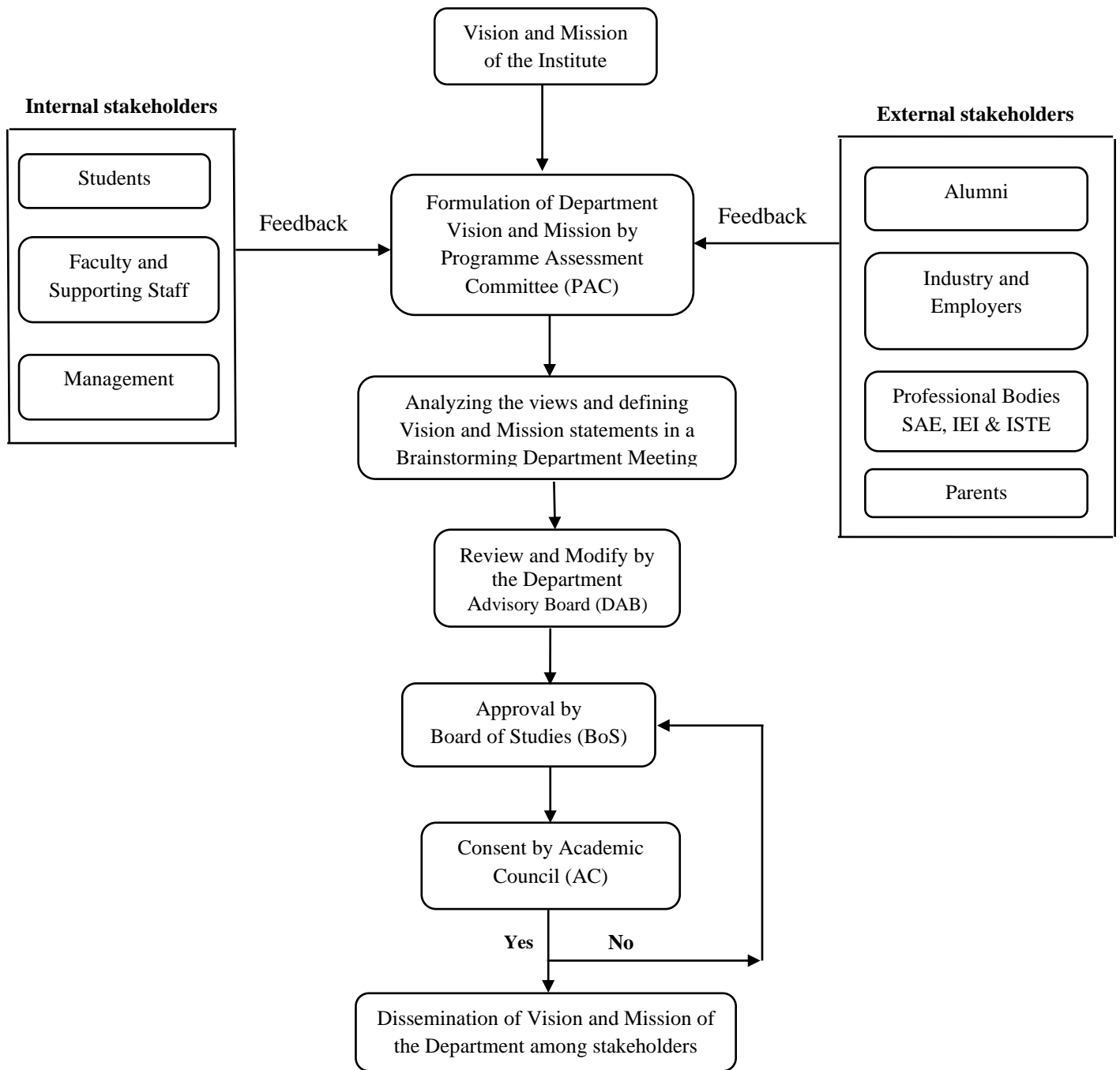


Figure B.1.4a Process for defining the Vision and Mission of the Department



Following step by step procedure is followed for defining Vision and Mission of the department.

- A Programme Assessment Committee (PAC) involving HoD and faculty members in the department formulates the department Vision and Mission statements by considering the views of the stakeholders of the Department and Institution's Vision and Mission as a basis.
- The views taken from stakeholder are analyzed and deliberated in the PAC brainstorming sessions involving the entire faculty team to ensure the drafted department Vision and Mission statement's consistency with the Vision and Mission of the institute.
- Department Advisory Board (DAB) which consists of HoD, senior faculty members, industry and academic experts reviews the drafted Vision and Mission statement of the department.
- The statements are validated by comparing with other leading institutions.
- Board of Studies (BoS) approves the department's vision and mission statements followed by the consent of Academic Council (AC).
- It is communicated to the entire stakeholders through various modes as mentioned in section 1.3. These statements are reviewed periodically and modified if required.



The proceedings of PAC started and the minutes of the meeting are recorded as follows:

Item 1.01	Welcome and introduction of members	
	Dr. M. Easwaramoorthi, Chairman PAC introduced and welcomed the members followed by a brief note on functioning of PAC	
Item 1.02	Review of the previous PAC Meeting minutes.	
Discussion	PAC Chairman presented the previous PAC meeting minutes (date) and action taken report.	
Resolution	Resolved to approve the PAC Meeting minutes	
Item 1.03	Pitfalls and difficulties in the existing curriculum	
Discussion	<ul style="list-style-type: none"> ▪ Members suggested including programming courses after 2nd semester for the benefit of lateral entry students. ▪ Placement coordinators opined to provide credits to the students those who are undergoing industry related placement training. ▪ Members suggested to modify the Engineering Graphics syllabus by incorporating laboratory practice ▪ Dr. MEM stressed the need for adding electronics courses to Mechanical Engineering students and suggested to have electrical and electronics as two separate courses. ▪ Members suggested to consider the actual credits earned through online courses while giving exemption of courses. 	
Resolution	Resolved to consider the suggestions of members in the upcoming curriculum	
Item 1.04	Ratification of courses - R17 curriculum	
Discussion	PG coordinator requested to ratify the following courses which were offered to PhD scholars as a part of their course work in the next BoS. 17EDX29 - Design of Biomass Conversion Technology 17EDX30 - Welding Metallurgy 17EDX31 - Materials Characterization	
Resolution	Resolved to place the syllabus of the above courses in 10 th BoS.	
Item 1.05	Revision of Department Vision, Mission, PEOs and PSOs	
Discussion	PAC reviewed the Vision, Mission statements of the department and PSO, and suggestions given by the experts at various occasions. It was decided to make changes and place before DAB and BoS for approval.	
Resolution	Resolved to approve the decisions and place the same in the next DAB and BOS.	
Item 1.06	New Regulation (R22) and Curriculum	
Discussion	<ul style="list-style-type: none"> ▪ PAC Chairman explained the need for new regulation (R22) and guidelines for framing curriculum based on AICTE model curriculum. ▪ BoS coordinator suggested including certification courses as non-credit mandatory courses in the curriculum. He also explained the benefit of identifying important certification courses which would provide skills required to get placement. ▪ PAC members suggested making provision in the next regulation for considering the full credits earned by the students while giving course exemption in lieu of online courses. 	
Resolution	Resolved to include the above suggestion and place before DAB and BOS meeting.	
Item 1.07	Department activity plan for the academic year 2022 – 2023.	
	Students Association incharge presented the activity action plan as listed below.	
	S. No.	Month
	1.	3 rd week of August 2022
	2.	4 th week of August 2022
	3.	4 th week of September 2022
	4.	3 rd week of October 2022
	5.	1 st week of November 2022
	6.	1 st week of January 2023
	7.	3 rd week of February 2023

Figure B.1.4b Minutes of PAC meeting (proposal for revision of Vision and Mission)

The proceedings of DAB started and the minutes of the meeting are recorded as follows:

Item 1.01	Welcome note and introduction of members												
	Dr. M. Easwaramoorthi, Chairman DAB introduced the members and welcomed all followed by a brief note on functioning of DAB												
Item 1.02	Review of the previous PAC meeting minutes (held on 17.06.2022)												
Discussion	DAB Chairman presented the previous PAC meeting minutes and action taken report.												
Resolution	Resolved to approve the PAC minutes of meeting .												
Item 1.03	Pitfalls and difficulties in the existing curriculum												
Discussion	<p>Dr. MEM presented the pitfalls and difficulties in the existing curriculum based on the discussions in the PAC meeting.</p> <ul style="list-style-type: none"> ▪ Including programing courses after 2nd semester for the benefit of lateral entry students. ▪ Opinion of Placement coordinators to provide credits to the students those who are undergoing industry related placement training. ▪ Modification of Engineering Graphics syllabus by incorporating laboratory practice ▪ Need for adding electronics courses to Mechanical Engineering students and suggested to have electrical and electronics as two separate courses. ▪ Suggestion to consider the actual credits earned through online courses while giving exemption of courses. 												
Resolution	Resolved to consider the above point in the upcoming curriculum												
Item 1.04	Ratification required for PSE Electives in R17 (PG) Curriculum.												
Discussion	<p>Dr. MEM presented and requested to ratify the following courses which were offered to PhD scholars as a part of their course work and place it for approval in the next BoS.</p> <p>17EDX29 - Design of Biomass Conversion Technology 17EDX30 - Welding Metallurgy 17EDX31 - Materials Characterization</p>												
Resolution	DAB Members resolved to ratify the syllabus of courses												
Item 1.05	Feedback analysis – Course end survey & Student exit survey of Batch 2018-22												
	Dr. MEM presented the student's exit survey analysis of Batch 2018-22												
	Feedback	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
	High (%)	61	51	51	56	53	51	46	56	56	60	56	61
	Moderate (%)	32	40	42	35	40	40	47	40	39	32	35	30
	Low (%)	7	9	7	9	7	9	7	4	5	8	9	9
Discussion	Feedback	PSO1			PSO2			PSO3			PSO4		
	High (%)	49			49			44			49		
	Moderate (%)	40			42			46			46		
	Low (%)	11			9			10			5		
	Dr. PNK Kongu Engg. College suggested giving more attention to POs 7, 2 & 3 and its improvements. Dr. Saravanan Indoshell Cast also clarified about PSO and suggested to modify PSO4.												
Resolution	Resolved to record the comments and make necessary changes.												
Item 1.06	Revision of Department Vision, Mission, PEOs and PSOs												
Discussion	<p>Dr. MEM presented the Vision, Mission, PEOs and PSOs statements and explained the need for changing above statements.</p> <p>Dr. PNK Kongu Engg. College asked to prepare correlation matrix for Vision, Mission and PEO. Other members appreciated efforts taken by the dept. of Mechanical Engineering for bringing changes.</p>												
Resolution	Resolved to approve the modification in the Department Vision, Mission and PSOs statements.												

Figure B.1.4c Minutes of DAB meeting (proposal for revision of Vision and Mission)



The proceedings of BoS started. The discussions and resolutions are recorded as follows:

Item 10.01	Welcome note and introduction of members Dr. M. Easwaramoorthi, Chairman BoS introduced the members and welcomed all followed by a brief note on functioning of BoS.
Item- 10.02	Review and approval of the 9 th BOS meeting minutes and ATR
Discussion	The salient decisions taken in the 9 th BoS meeting and action taken were presented. The members have appreciated the efforts taken to implement the suggestions.
Resolution	Resolved to approve the Action Taken Report of 9th BoS meeting.
Item - 10.03	Review and approval of the PAC and DAB meeting minutes & ATR.
Discussion	The important suggestions given by the PAC and DAB members during the meeting and action taken were presented.
Resolution	All members have noted the ATR of PAC and DAB meeting. Resolved to record the proceeding.
Item- 10.04	Review of Institute Vision & Mission
Discussion	Dr. MEM presented the proposed Institute Vision, Mission. VISION To be a centre of excellence providing high quality Engineering, Technology and Management education to meet the ever growing needs of the society. MISSION <ul style="list-style-type: none"> To provide quality education to produce competent professionals and leaders with social responsibility To excel in research in the field of Engineering, Technology and Management To be a learner centric environment with continual progress to meet the global needs. <p>➤ Dr. S. J. Vijay suggested</p> <ul style="list-style-type: none"> to modify the vision statement by adding "To be an institute of excellence" instead of "To be a centre of excellence". to include the existing term "ever growing socio-economic needs" in the last sentence of vision statement <p>➤ Dr. V. Arul Mozhi Selvam opined</p> <ul style="list-style-type: none"> to modify second statement of mission as "To excel in the thrust areas of Engineering, Technology and entrepreneurship by solving research oriented problems. to add action verb in third statement of mission like "To create a learner centric environment".
Resolution	Resolved to put forth the suggestion in the academic council meet for approval.
Item-10.05	Review and approval of Department Vision, Mission, PEOs and PSOs.
Discussion	Dr. MEM presented the proposed Department Vision, Mission, PEOs and PSOs statements. VISION (UG) To be a centre of excellence providing high quality Mechanical Engineering education to meet the ever growing needs of the society.

	MISSION (UG) <ul style="list-style-type: none"> To provide quality education to produce Mechanical Engineering professionals with social responsibility To excel in research in the field of Mechanical Engineering To be a learner centric environment with continual progress to meet the global needs. VISION (PG) To be a centre of excellence providing Engineering Design education to meet the ever growing needs of the society. MISSION (PG) <ul style="list-style-type: none"> To provide quality education to produce Engineering Design professionals with social responsibility. To excel in research in the field of Engineering Design To be a learner centric environment with continual progress to meet the global needs of industry. <p>✓ Members unanimously stated that the Vision and Mission of the Department should be in line with the vision and mission of the Institute. After detailed deliberations, the board expressed their satisfaction over the statements of Program Educational Objectives.</p> <p>✓ Dr. V. Arul Mozhi Selvam opined to</p> <ul style="list-style-type: none"> Change UG programme's 2nd mission as "To excel in research in the thrust areas of Mechanical Engineering by solving real world problems. Change PG programme's 2nd mission as "To excel in research in the field of Engineering Design by solving real world problems. Add action verb "create" in 3rd UG programme's mission statement (To create a learner centric environment.....) <p>✓ Dr. S. J. Vijay suggested checking and modifying PG programme PO2 and PSO2 since it seems to be same.</p>
Resolution	Resolved to approve the modification in the Department Vision, Mission, PEOs and PSOs statements.
Item -10.06	Review of Correlation between the Vision and Mission statements of Institute and Department, and correlation between PEOs and POs.
Discussion	<p>✓ Dr. MEM presented the correlation between the Institute and department Vision, Mission, PEOs and POs statement .</p> <p>✓ Dr. S.J.Vijay clarified the correlation matrix for Vision, Mission and PEO.</p> <p>✓ Other members appreciated the efforts taken for bringing changes.</p>
Resolution	Resolved to approve the Correlation matrix.
Item -10.07	UG- B.E., Mechanical Engineering Programme Approval of <ul style="list-style-type: none"> Curriculum (R22) Syllabus - 1st & 2nd semesters and CO -PO/PSO Mapping. <p style="text-align: center;">Semester -I</p> <ul style="list-style-type: none"> Course-1: Engineering Graphics and Drafting

Figure B.1.4d Minutes of BoS meeting (proposal for revision of Vision and Mission)



Process for defining the PEOs of the Department

Process for defining the PEOs of the Department is presented as a flowchart followed by description.

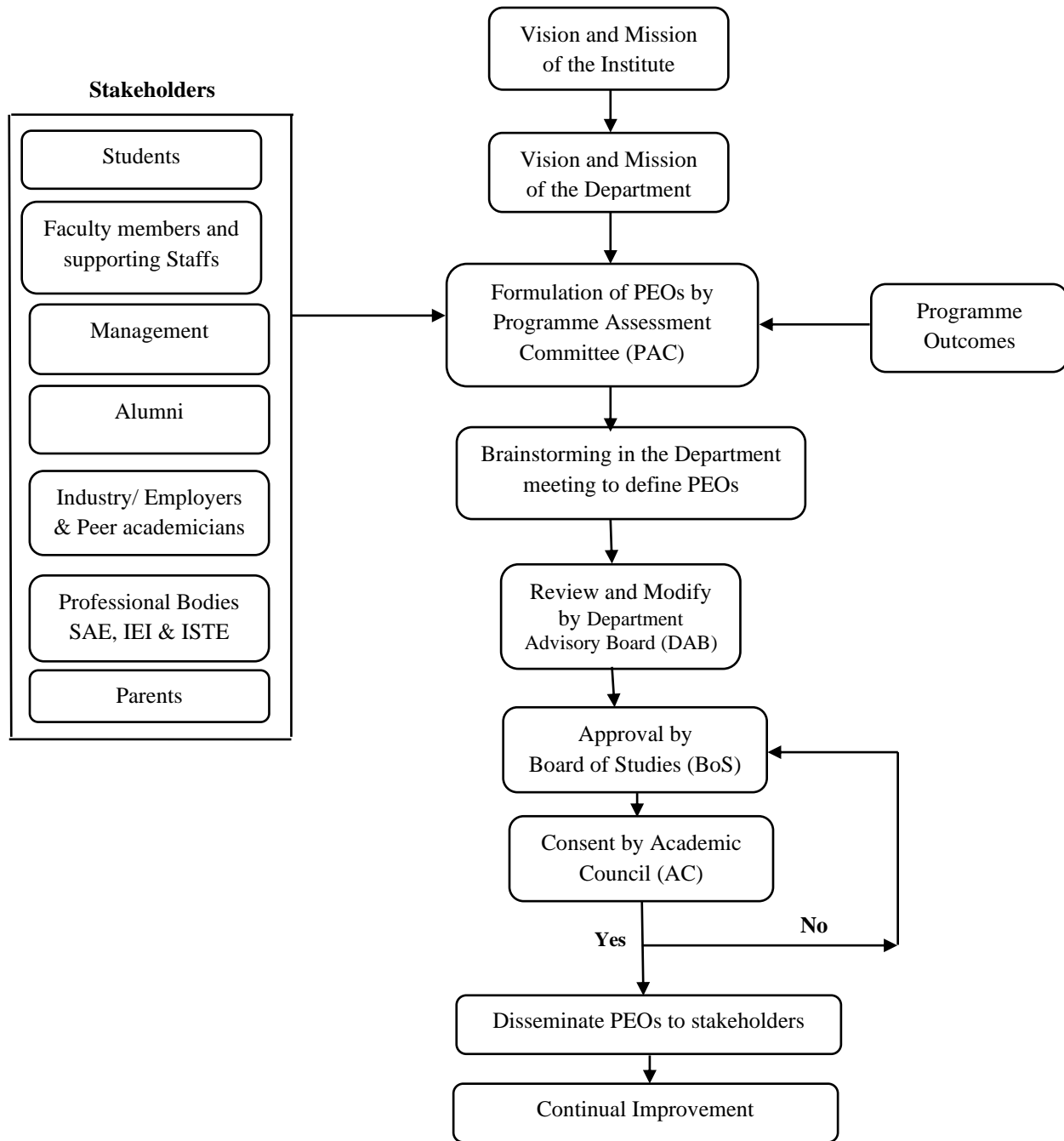


Figure B.1.4e Process for defining the PEOs of the Department



Following step by step procedure is followed to defining PEOs of the department.

- The process of formulating Program Educational Objectives (PEOs) starts with acquiring inputs from various stakeholders, consultation with peer academicians and alumni representatives to understand the requirements of industry.
- The PAC of the department prepares draft PEOs based on POs and inputs of various stakeholders.
- The drafted PEOs are discussed in the PAC brainstorming sessions involving the entire faculty team to define PEOs in line with the department Vision and Mission statements.
- It is fine-tuned based on stakeholder's feedback when the faculty members of the department meet stakeholders on various occasions like delivering expert lectures, visiting industries, campus placement interviews, conference/workshop/seminars, viva-voce examinations, parents meeting, alumni interaction, etc.
- The final draft of PEOs is placed for discussion and fine-tuning in the Department Advisory Board (DAB).
- The drafted PEOs is validated by comparing with the leading Mechanical Engineering departments of bench marked Colleges/Universities.
- Board of Studies (BoS) approves the PEOs statements followed by the consent of Academic Council (AC).
- Review on the achievement of PEOs is carried out often through stakeholders' survey (Students/ Faculty/ Alumni/ Employers/ Members of Governing Council, Academic Council and BoS).
- The department will evaluate the PEOs based on the attainment levels and come up with action plans for continual quality improvement.





NANDHA ENGINEERING COLLEGE
(Autonomous)
Erode- 638 052
Department of Mechanical Engineering



NEC/MECH/PAC-02/2021-22

DATE: 16.06.2022

CIRCULAR

Originator: Chairman- PAC	Circulated to: Members of PAC & All faculty members
------------------------------	--

Sub: Programme Assessment Committee (PAC) meeting:

The PAC meeting is scheduled on 17.06.2022 to discuss the agenda listed below. In this connection, all the PAC members are requested to attend the meeting.

Date & Time of Meeting: 17.06.2022 (9.30AM)-Friday

Venue: Block 7, Hall No. 205

AGENDA	
Item 1.01	Details of members.
Item 1.02	Review of the previous PAC meeting minutes.
Item 1.03	Pitfalls and difficulties in the existing curriculum
Item 1.04	Ratification required for R17 curriculum.
Item 1.05	Revision of Department Vision, Mission, PEOs and PSOs, if required.
Item 1.06	New Regulation and Curriculum (R22)
Item 1.07	Department activity plan for the academic year 2022 – 2023.
Item 1.08	Result Analysis and Attainment of the CO, PO and PSO.(Target fixed and attained)
Item 1.09	Discussion on Budget requirement and Utilization.
Item 1.10	Annual Report
Item 1.11	Any other matter


CHAIRMAN - PAC

HEAD OF THE DEPARTMENT
DEPARTMENT OF MECHANICAL ENGINEERING
NANDHA ENGINEERING COLLEGE
ERODE-638 052

- To
- ✓ All members of PAC,
 - ✓ All Faculty members,
 - ✓ File (O/o Head)

Figure B.1.4f Circular - PAC meeting of the Department



	NANDHA ENGINEERING COLLEGE ERODE – 638 052 (An Autonomous Institution, Affiliated to Anna University Chennai and Approved by AICTE New Delhi)			
	DEPARTMENT OF MECHANICAL ENGINEERING			
MINUTES OF THE PROGRAMME ASSESSMENT COMMITTEE (PAC) MEETING				
Meeting No.: 2	Date: 17.06.2022	Time: 10.30 AM	Venue: Block-7, D 205	Year: 2021-22

The 2nd PAC meeting was held on 17.06.2022 by 10.30 pm at Block 7 D 205. Dr. M. Easwaramoorthi Chairman, PAC welcomed the members for the meeting. Then, the items listed below were taken for discussion. List of members attended the meeting is enclosed in Annexure-1

AGENDA	
Item 1.01	Welcome and introduction of members.
Item 1.02	Review of the previous PAC meeting minutes.
Item 1.03	Pitfalls and difficulties in the existing curriculum
Item 1.04	Ratification of courses- R17 curriculum.
Item 1.05	Revision of Department Vision, Mission, PEOs and PSOs
Item 1.06	New Regulation- R22 and Curriculum
Item 1.07	Department activity plan for the academic year 2022 – 2023.
Item 1.08	<ul style="list-style-type: none"> ▪ Result Analysis – 2021-22 (ODD & EVEN) ▪ Attainment of the CO, PO and PSO.
Item 1.09	Discussion on budget utilization (2021-22) and budget requirements for 2022-23
Item 1.10	Annual Report – 2021-22
Item 1.11	Any other matter

Figure B.1.4g Agenda for PAC meeting of the Department



The proceedings of PAC started and the minutes of the meeting are recorded as follows:

Item 1.01	Welcome and introduction of members	
	Dr. M. Easwaramoorthi, Chairman PAC introduced and welcomed the members followed by a brief note on functioning of PAC	
Item 1.02	Review of the previous PAC Meeting minutes.	
Discussion	PAC Chairman presented the previous PAC meeting minutes (date) and action taken report.	
Resolution	Resolved to approve the PAC Meeting minutes	
Item 1.03	Pitfalls and difficulties in the existing curriculum	
Discussion	<ul style="list-style-type: none"> ▪ Members suggested including programming courses after 2nd semester for the benefit of lateral entry students. ▪ Placement coordinators opined to provide credits to the students those who are undergoing industry related placement training. ▪ Members suggested to modify the Engineering Graphics syllabus by incorporating laboratory practice ▪ Dr. MEM stressed the need for adding electronics courses to Mechanical Engineering students and suggested to have electrical and electronics as two separate courses. ▪ Members suggested to consider the actual credits earned through online courses while giving exemption of courses. 	
Resolution	Resolved to consider the suggestions of members in the upcoming curriculum	
Item 1.04	Ratification of courses - R17 curriculum	
Discussion	PG coordinator requested to ratify the following courses which were offered to PhD scholars as a part of their course work in the next BoS. 17EDX29 - Design of Biomass Conversion Technology 17EDX30 - Welding Metallurgy 17EDX31 - Materials Characterization	
Resolution	Resolved to place the syllabus of the above courses in 10 th BoS.	
Item 1.05	Revision of Department Vision, Mission, PEOs and PSOs	
Discussion	PAC reviewed the Vision, Mission statements of the department and PSO, and suggestions given by the experts at various occasions. It was decided to make changes and place before DAB and BoS for approval.	
Resolution	Resolved to approve the decisions and place the same in the next DAB and BOS.	
Item 1.06	New Regulation (R22) and Curriculum	
Discussion	<ul style="list-style-type: none"> ▪ PAC Chairman explained the need for new regulation (R22) and guidelines for framing curriculum based on AICTE model curriculum. ▪ BoS coordinator suggested including certification courses as non-credit mandatory courses in the curriculum. He also explained the benefit of identifying important certification courses which would provide skills required to get placement. ▪ PAC members suggested making provision in the next regulation for considering the full credits earned by the students while giving course exemption in lieu of online courses. 	
Resolution	Resolved to include the above suggestion and place before DAB and BOS meeting.	
Item 1.07	Department activity plan for the academic year 2022 – 2023.	
	Students Association incharge presented the activity action plan as listed below.	
	S. No.	Month
	1.	3 rd week of August 2022
	2.	4 th week of August 2022
	3.	4 th week of September 2022
	4.	3 rd week of October 2022
	5.	1 st week of November 2022
	6.	1 st week of January 2023
	7.	3 rd week of February 2023

Figure B.1.4h Minutes of PAC meeting



	8.	Academic seminar-2	2 nd week of March 2023		
	9.	Industrial seminar-2	1 st week of April 2023		
Resolution	Resolved to approve the list of activities.				
Item 1.08	Result Analysis and Attainment of the CO, PO and PSO.				
Discussion	Exam cell coordinator presented the end semester results for year 2021-22 (Odd & Even) Academic coordinators of Batch 2015-2019, Batch 2016-2020 and Batch 2016-2021 presented the PO & PSO target and attainment. The PO attainment of PO-8, PO-9 & PO-10 was found to be below the target. PAC members were informed to analyze the reasons and take remedial measures to improve the attainment of POs.				
Resolution	Resolved to record the performance.				
Item 1.09	Discussion on budget utilization (2021-22) and budget requirements for 2022-23				
Discussion	Budget coordinator presented the budget utilization details of year 2021-22 and 2022-23 budget requirements.				
	Year	Budget proposed	Budget approved	Utilization	Remarks
	2021-22	1844275	1565270	1086921	
	2022-23	2728499	2728499	-	
Resolution	Resolved to record the budget details				
Item 1.10	Annual Report – 2021-22.				
Discussion	Department coordinator (monthly reports) presented the annual report of year 2021-22. Chairman- PAC opined that paper publications, project funding and faculty industrial training found to be improved. He requested faculty members to concentrate on the above areas.				
Resolution	Resolved to record the annual report.				
Item 1.11	Any other matter				
	Alumni coordinator has suggested the following points <ul style="list-style-type: none"> ▪ Motivate passed out students to register in the Alumni portal. ▪ Entry of Alumni salary packages details in the Alumni portal. Placement coordinator has suggested motivating students to register online courses to earn credits and trying to get exemption course in the final year so as have sufficient time for placement training/internship/preparing for higher studies.				

Date: 17-6-2022


 CHAIRMAN
 PAC- MECH
 HEAD OF THE DEPARTMENT
 DEPARTMENT OF MECHANICAL ENGINEERING
 NANDHA ENGINEERING COLLEGE
 ERODE - 638 057

Figure B.1.4i Minutes of PAC meeting of the Department



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NANDHA ENGINEERING COLLEGE
(Autonomous Institution)
Pitchandampalayam, Erode To Perundurai Road, Erode-638 052

PROGRAMME ASSESSMENT COMMITTEE

Academic Year: 2021 – 2022

Date: 17.06.2022

LIST OF MEMBERS

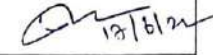
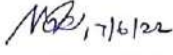
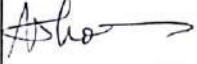
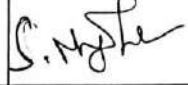




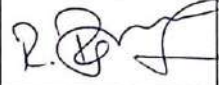
Sl.No	Members	Signature
1.	Dr. M. Easwaramoorthi, Professor & Head - Mechanical	
2.	Dr. M. Muthukumar, Professor – Mechanical	
3.	Dr. B. Ashok Kumar, Professor – Mechanical	
4.	Dr. M.K. Murthi, Associate Professor – Mechanical	ABSENT
5.	Dr. S. Magibalan, Associate Professor - Mechanical	
6.	Dr. A. Peramanan, Associate Professor – Mechanical	ABSENT
7.	Mr. V.N. Loganathan, Assistant Professor - Mechanical	ABSENT
8.	Mr. M. Shanmugam, Assistant Professor - Mechanical	
9.	Mr. M. Sengottaiyan, Assistant Professor - Mechanical	
10.	Mr. S. Eswaran, Assistant Professor - Mechanical	
11.	Mr. T. Venkateshan, Assistant Professor - Mechanical	
12.	Mr. R. Rajkumar, Assistant Professor - Mechanical	

Figure B.1.4j PAC meeting of the Department (Attendance)





NANDHA ENGINEERING COLLEGE
(Autonomous Institution)
Pitchandampalayam, Erode To Perundural Road, Erode-638 052

PROGRAMME ASSESSMENT COMMITTEE

Sl.No	Members	Signature
13.	Mr. S. Muruganantham, Assistant Professor - Mechanical	
14.	Ms. A D. Latha, Assistant Professor - Mechanical	ABSENT
15.	Mr. M. Sampathkumar, Assistant Professor - Mechanical	ABSENT
16.	Dr. N. Senniengiri, Assistant Professor - Mechanical	ABSENT
17.	Dr. M. Manikandan, Assistant Professor - Mechanical	
18.	Mr. M. Mohamed Ajmal Mahasin, Assistant Professor - Mechanical	
19.	Mr. D. Ravichandran, Assistant Professor - Mechanical	
20.	Mr. B. Velliyangiri, Assistant Professor - Mechanical	
21.	Mr. R. Arjun Raj, Assistant Professor - Mechanical	ABSENT
22.	Mr. S. Balakrishnan, Assistant Professor - Mechanical	
23.	Mr. M A. Omprakas, Assistant Professor - Mechanical	
24.	Mr. R. Jeyakumar, Assistant Professor - Mechanical	ABSENT
25.	Mr. B. Sakthivel, Assistant Professor - Mechanical	ABSENT
26.	Mr. G. Kannan, Assistant Professor - Mechanical	ABSENT
27.	Mr. M. Nandhakumar, Assistant Professor - Mechanical	ABSENT
28.	Mr. G. Gowrisankar, Assistant Professor - Mechanical	ABSENT

Dr. M. EASWARAMOORTHI M.E., Ph.D.,
Head of the Department,
Department of Mechanical Engineering
Nandha Engineering College (Autonomous)
ERODE - 638 052.

Figure B.1.4k PAC meeting of the Department (Attendance)





Figure B.1.4I PAC Meeting





NANDHA ENGINEERING COLLEGE
(Autonomous)
Erode- 638 052
Department of Mechanical Engineering



NEC/MECH/DAB-01/2021-22

DATE: 24.06.2022

CIRCULAR

Originator: Chairman- DAB	Circulated to: Members of DAB & All faculty members
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Sub: DEPARTMENT ADVISORY BOARD (DAB) MEETING

The DAB meeting is scheduled on 27.06.2022 to discuss the agenda listed below. In this connection, all the DAB members are requested to attend the meeting.

Date & Time of Meeting: **27.06.2022 (11.30AM)-Monday**

Venue: Online Zoon Meeting

AGENDA	
Item 1.01	Welcome note and introduction of members
Item 1.02	Review of the previous PAC meeting minutes
Item 1.03	Pitfalls and difficulties in the existing curriculum
Item 1.04	Ratification required for PSE Electives in R17 (PG) Curriculum.
Item 1.05	Feedback analysis – Course end survey & Student exit survey
Item 1.06	Revision of Department Vision, Mission, PEOs and PSOs
Item 1.07	New Regulation and Curriculum (R22) with academic and industry expert comments
Item 1.08	Department activity plan for the academic year 2022 – 2023.
Item 1.09	<ul style="list-style-type: none"> ▪ Result Analysis and ▪ Attainment of the CO, PO and PSO (Target fixed and attained) - 2021 passed out batch students.
Item 1.10	Student admission quality
Item 1.11	Discussion on Budget requirement and Utilization.
Item 1.12	Annual Report
Item 1.13	Any other matter


24/06/22
CHAIRMAN - DAB

Dr. M.EASWARAMOORTHY M.E.,Ph.D.,
Head of the Department,
Department of Mechanical Engineering
Nandha Engineering College (Autonomous)
ERODE - 638 052.

To

- ✓ All members of DAB,
- ✓ All Faculty members,
- ✓ File (O/o Head)

Figure B.1.4m Circular for DAB meeting of the Department

	NANDHA ENGINEERING COLLEGE			
	ERODE – 638 052 (An Autonomous Institution, Affiliated to Anna University Chennai and Approved by AICTE New Delhi)			
DEPARTMENT OF MECHANICAL ENGINEERING				
MINUTES OF THE DEPARTMENT ADVISORY BOARD (DAB) MEETING				
Meeting No.: 1	Date: 27.06.2022	Time: 11.30 AM	Venue: Online Zoom meeting	Year: 2021-22

The 1st DAB meeting for the academic year 2021-2022 was held on 27-06-2022 by 11.30 am at Online Zoom meeting. List of members attended the meeting is enclosed in Annexure -1

The Chairman of the DAB, Dr. M .Easwaramoorthi, welcomed the members for the meeting. then, the items listed below were taken for discussion.

AGENDA	
Item 1.01	Welcome note and introduction of members
Item 1.02	Review of the previous PAC meeting minutes
Item 1.03	Pitfalls and difficulties in the existing curriculum
Item 1.04	Ratification required for PSE Electives in R17 (PG) Curriculum.
Item 1.05	Feedback analysis – Course end survey & Student exit survey
Item 1.06	Revision of Department Vision, Mission, PEOs and PSOs
Item 1.07	New Regulation and Curriculum (R22) with academic and industry expert comments
Item 1.08	Department activity plan for the academic year 2022 – 2023.
Item 1.09	<ul style="list-style-type: none"> ▪ Result Analysis and ▪ Attainment of the CO, PO and PSO (Target fixed and attained) - 2021 passed out batch students.
Item 1.10	Student admission quality
Item 1.11	Discussion on Budget requirement and Utilization.
Item 1.12	Annual Report
Item 1.13	Any other matter

Figure B.1.4n Agenda for DAB meeting of the Department



The proceedings of DAB started and the minutes of the meeting are recorded as follows:

Item 1.01	Welcome note and introduction of members												
	Dr. M. Easwaramoorthi, Chairman DAB introduced the members and welcomed all followed by a brief note on functioning of DAB												
Item 1.02	Review of the previous PAC meeting minutes (held on 17.06.2022)												
Discussion	DAB Chairman presented the previous PAC meeting minutes and action taken report.												
Resolution	Resolved to approve the PAC minutes of meeting .												
Item 1.03	Pitfalls and difficulties in the existing curriculum												
Discussion	<p>Dr. MEM presented the pitfalls and difficulties in the existing curriculum based on the discussions in the PAC meeting.</p> <ul style="list-style-type: none"> ▪ Including programing courses after 2nd semester for the benefit of lateral entry students. ▪ Opinion of Placement coordinators to provide credits to the students those who are undergoing industry related placement training. ▪ Modification of Engineering Graphics syllabus by incorporating laboratory practice ▪ Need for adding electronics courses to Mechanical Engineering students and suggested to have electrical and electronics as two separate courses. ▪ Suggestion to consider the actual credits earned through online courses while giving exemption of courses. 												
Resolution	Resolved to consider the above point in the upcoming curriculum												
Item 1.04	Ratification required for PSE Electives in R17 (PG) Curriculum.												
Discussion	<p>Dr. MEM presented and requested to ratify the following courses which were offered to PhD scholars as a part of their course work and place it for approval in the next BoS.</p> <p>17EDX29 - Design of Biomass Conversion Technology 17EDX30 - Welding Metallurgy 17EDX31 - Materials Characterization</p>												
Resolution	DAB Members resolved to ratify the syllabus of courses												
Item 1.05	Feedback analysis – Course end survey & Student exit survey of Batch 2018-22												
	Dr. MEM presented the student’s exit survey analysis of Batch 2018-22												
	Feedback	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
	High (%)	61	51	51	56	53	51	46	56	56	60	56	61
	Moderate (%)	32	40	42	35	40	40	47	40	39	32	35	30
	Low (%)	7	9	7	9	7	9	7	4	5	8	9	9
	Feedback	PSO1			PSO2			PSO3			PSO4		
	High (%)	49			49			44			49		
	Moderate (%)	40			42			46			46		
	Low (%)	11			9			10			5		
Discussion	Dr. PNK Kongu Engg. College suggested giving more attention to POs 7, 2 & 3 and its improvements. Dr. Saravanan Indoshell Cast also clarified about PSO and suggested to modify PSO4.												
Resolution	Resolved to record the comments and make necessary changes.												
Item 1.06	Revision of Department Vision, Mission, PEOs and PSOs												
Discussion	<p>Dr. MEM presented the Vision, Mission, PEOs and PSOs statements and explained the need for changing above statements.</p> <p>Dr. PNK Kongu Engg. College asked to prepare correlation matrix for Vision, Mission and PEO. Other members appreciated efforts taken by the dept. of Mechanical Engineering for bringing changes.</p>												
Resolution	Resolved to approve the modification in the Department Vision, Mission and PSOs statements.												

Figure B.1.4o Minutes of DAB meeting of the Department



Item 1.07	New Regulation [R22] and Curriculum with academic and industry expert comments																																		
Discussion	<p>DAB Chairman explained the need for new regulation (R22) and guidelines for framing curriculum based on AICTE model curriculum. Also presented the discussions of PAC as given below.</p> <ul style="list-style-type: none"> ▪ BoS coordinator suggestion of including certification courses as non-credit mandatory courses in the curriculum. He also explained the benefit of identifying important certification courses which would provide skills required to get placement. ▪ PAC members suggestion of making provision in the next regulation for considering the full credits earned by the students while giving course exemption in lieu of online courses. <p>Dr. Saravanan Indoshell Cast appreciated for incorporating practical component in the course "Engineering Graphics and Design" and suggested to put appropriate word for Design since students would be doing drafting work.</p> <p>Dr. PNK Kongu Engg. College suggested to refer AICTE model curriculum while framing syllabus for courses and appreciated for introducing Electrical and Electronics as two separate courses. He further suggested framing syllabus for above courses in consultation with industries since electric vehicles are emerging field.</p>																																		
Resolution	Resolved to include the suggestion of DAC members and placing it before next BOS meeting.																																		
Item 1.08	Department activity plan for the academic year 2022 – 2023.																																		
Discussion	<p>Dr. MEM presented the tentative Student's Association (SOME) activity plan for the year 2022-2023 as listed below.</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Activity</th> <th>Month</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>SOME Association inaugural</td> <td>3rd week of August 2022</td> </tr> <tr> <td>2.</td> <td>Academic seminar-1</td> <td>4th week of August 2022</td> </tr> <tr> <td>3.</td> <td>Industrial seminar-1</td> <td>4th week of September 2022</td> </tr> <tr> <td>4.</td> <td>Workshop-1</td> <td>3rd week of October 2022</td> </tr> <tr> <td>5.</td> <td>Inter-department meet</td> <td>1st week of November 2022</td> </tr> <tr> <td>6.</td> <td>Intra-department meet</td> <td>1st week of January 2023</td> </tr> <tr> <td>7.</td> <td>Symposium & Workshops</td> <td>3rd week of February 2023</td> </tr> <tr> <td>8.</td> <td>Academic seminar-2</td> <td>2nd week of March 2023</td> </tr> <tr> <td>9.</td> <td>Industrial seminar-2</td> <td>1st week of April 2023</td> </tr> </tbody> </table>					S. No.	Activity	Month	1.	SOME Association inaugural	3 rd week of August 2022	2.	Academic seminar-1	4 th week of August 2022	3.	Industrial seminar-1	4 th week of September 2022	4.	Workshop-1	3 rd week of October 2022	5.	Inter-department meet	1 st week of November 2022	6.	Intra-department meet	1 st week of January 2023	7.	Symposium & Workshops	3 rd week of February 2023	8.	Academic seminar-2	2 nd week of March 2023	9.	Industrial seminar-2	1 st week of April 2023
S. No.	Activity	Month																																	
1.	SOME Association inaugural	3 rd week of August 2022																																	
2.	Academic seminar-1	4 th week of August 2022																																	
3.	Industrial seminar-1	4 th week of September 2022																																	
4.	Workshop-1	3 rd week of October 2022																																	
5.	Inter-department meet	1 st week of November 2022																																	
6.	Intra-department meet	1 st week of January 2023																																	
7.	Symposium & Workshops	3 rd week of February 2023																																	
8.	Academic seminar-2	2 nd week of March 2023																																	
9.	Industrial seminar-2	1 st week of April 2023																																	
Resolution	Members noted the above Association Activity plan for the academic year 2022 – 2023 and resolve to approve..																																		
Item 1.09	Result Analysis and Attainment of the CO, PO and PSO (Target fixed and attained) of 2021 passed out batch students.																																		
Discussion	The attainment of the program outcomes 8, 9 & 10 was found to be below 50% only. Hence Dr.MEM suggested the faculty members to identify the reason for low attainment that can improve.																																		
Resolution	Resolved to record the attainment.																																		
Item 1.10	Student admission quality																																		
Discussion	<p>Dr. MEM presented the details of students admitted in the year 2021-22</p> <ul style="list-style-type: none"> ▪ Counseling students – 51 ▪ Management students – 7 ▪ Maximum cut-off – 130 ▪ Minimum cut-off – 81 																																		
Resolution	Resolved to record the details																																		
Item 1.11	Discussion on Budget requirement and Utilization.																																		
Discussion	<p>Dr. MEM presented the budget utilization details of year 2021-22 and 2022-23 budget requirements.</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Budget proposed</th> <th>Budget approved</th> <th>Utilization</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>2021-22</td> <td>150000</td> <td>123208</td> <td>68449</td> <td>-</td> </tr> <tr> <td>2022-23</td> <td>2728499</td> <td>2728499</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>Members clarified the details of equipment to be purchased and its utilization to improve the attainment of CO, PO and PSO. Dr. MEM explained various heads of budget and proposals of purchasing software/hardware equipment.</p>					Year	Budget proposed	Budget approved	Utilization	Remarks	2021-22	150000	123208	68449	-	2022-23	2728499	2728499	-	-															
Year	Budget proposed	Budget approved	Utilization	Remarks																															
2021-22	150000	123208	68449	-																															
2022-23	2728499	2728499	-	-																															
Resolution	Resolved to approve proposed budget																																		

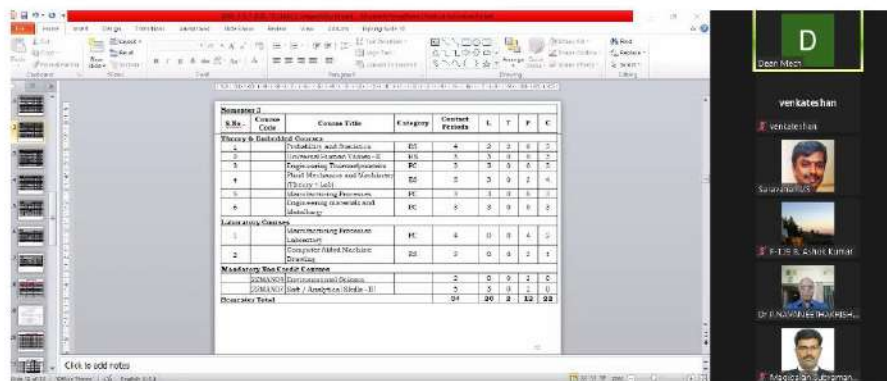
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Figure B.1.4p Minutes DAB meeting of the Department



Item 1.12	Annual Report
Discussion	Dr. MEM presented the annual report of the department for year 2021-22 and explained the achievements of students and faculty members. DAB members suggested including the achievement in the department newsletter and circulating it among stakeholders.
Resolution	Resolved to approve the report
Item 1.13	Any other matter
	Nil

Date: 27-06-2022



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(Signature)
CHAIRMAN 27/06/22
DAB-MECH

Dr. M.EASWARAMOORTHY M.E.,Ph.D.,
Head of the Department,
Department of Mechanical Engineering
Nandha Engineering College (Autonomous)
ERODE - 638 052.

Figure B.1.4q Minutes of DAB meeting of the Department



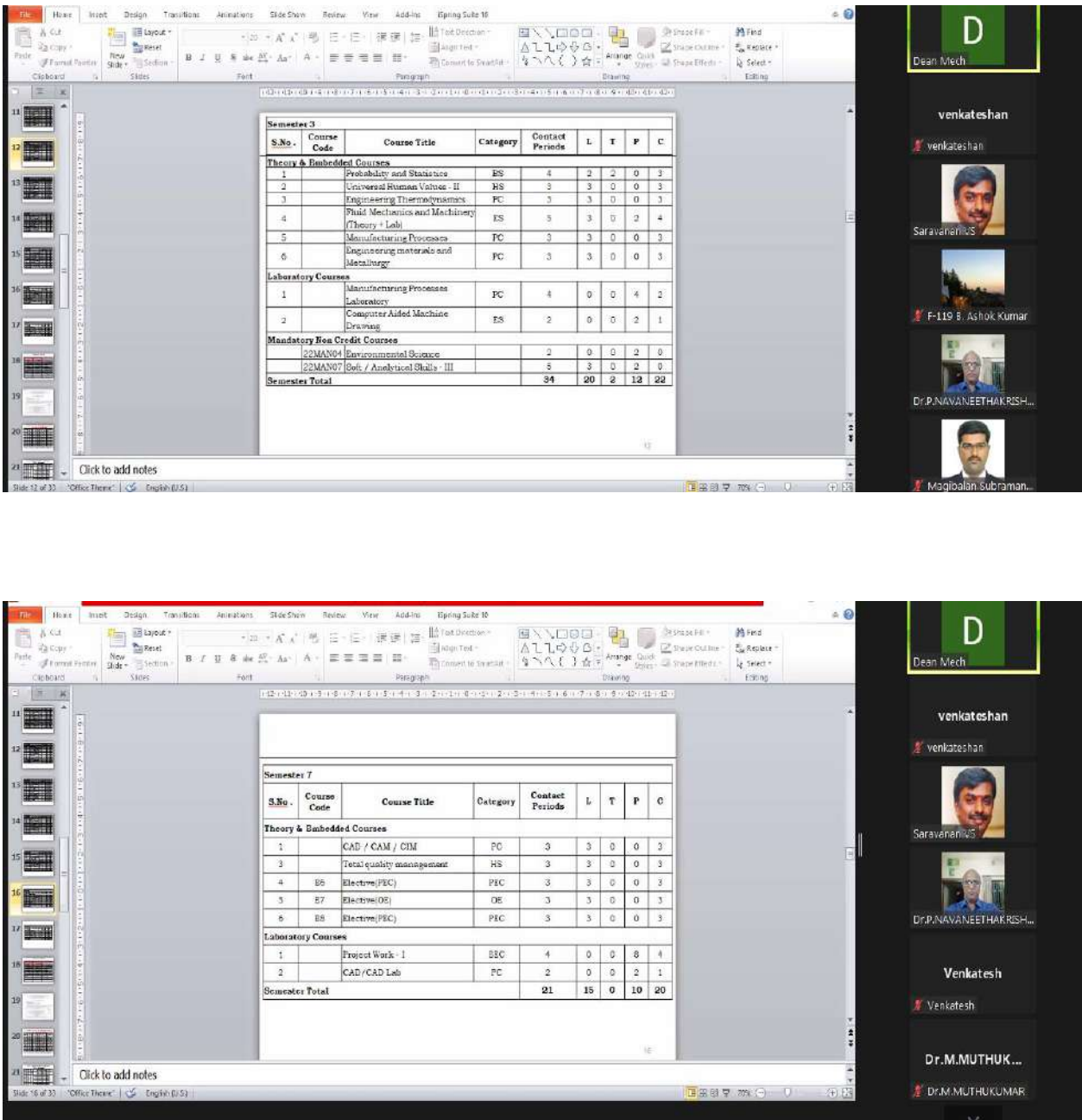


Figure B.1.4r DAB meeting of the Department

1.5 Establish consistency of PEOs with Mission of the Department (10)
Self-Assessment (10)

The consistency of the Department (DM) Mission with each PEO's has been presented in Table B.1.5a followed by justification of Co-relation between department Mission and PEOs.

Table B.1.5a PEO Vs Department Mission Co-relation

PEOs/ Mission	Offer state-of-the-art programmes in Mechanical engineering (DM1)	Develop skilled and employable graduates (DM2)	Inculcate the leadership qualities with professional and ethical responsibilities (DM3)	Encourage Research & Development (DM4)	Percentage of Consistency (%)
PEO 1	3	3	2	2	83.33
PEO 2	3	3	3	2	91.67
PEO 3	3	2	2	3	83.33
PEO 4	2	2	3	2	75
Percentage of Consistency	91.67	83.33	83.33	75	

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High) “-”: no co-relation



Justification of parameters of Co-relation between Mission and PEOs

Justification Co-relation between department Mission and PEO1

DM1 has substantial co-relation with PEO1 since offering state of art of Mechanical Engineering is considered as important for producing skilled engineers keeping in pace with the latest technologies.

DM2 has substantial co-relation with PEO1 because skills and producing employable graduates are considered as vital components for a skilled Engineer.

DM3 has moderate co-relation with PEO1 because students inculcated with leadership qualities with professional and ethical responsibilities would supplement graduates to perform well and serve the society.

DM4 has moderate co-relation with PEO1 as the skilled Engineer need to have knowledge on research and development to provide solutions to the complex industrial problems.

Justification Co-relation between department Mission and PEO2

DM1 has substantial co-relation with PEO2 because knowledge on state of art of Mechanical Engineering is considered as desirable to become an entrepreneur.

DM2 has substantial co-relation with PEO2 as the skill is considered an important component for an entrepreneur to start an industry.

DM3 has substantial co-relation with PEO2 because the leadership qualities and ethical responsibilities are important factors to become a successful entrepreneur.

DM4 has moderate co-relation with PEO2 as the knowledge on research and development is considered as a supplementary parameter for an entrepreneur.



Justification Co-relation between department Mission and PEO3

DM1 has substantial co-relation with PEO3 because; knowledge on state-of-the-art is considered as an important to pursue higher education / research.

DM2 has moderate co-relation with PEO3 because skill and employability are considered as additional components for graduates to take up career paths in teaching/research.

DM3 has moderate co-relation with PEO3 as the leadership qualities and ethical responsibilities are considered to be supplementary factors for the graduates to pursue higher studies and research.

DM4 has substantial co-relation with PEO3 because knowledge on research and development are essential to do higher education and research.

Justification Co-relation between department Mission and PEO4

DM1 has moderate co-relation with PEO4 since the professional and ethical responsibilities are considered as supplementary factors for effective learning of state-of-the-art of mechanical Engineering.

DM2 has moderate co-relation with PEO4 as developing skill and employable graduates requires professional and ethical responsibilities as additional qualities.

DM3 has substantial co-relation with PEO4 as the graduates inculcated with the leadership qualities with professional and ethical responsibilities will be successful in their career and serve the society.

DM4 has moderate co-relation with PEO4 as the perusing research and development would require professional and ethical responsibilities a supplementary quality.



CRITERION 2

PROGRAM CURRICULUM AND TEACHING - LEARNING PROCESSES



CRITERION 2	Program Curriculum and Teaching –Learning Processes	100
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Self Assessment (100)

2.1 Program Curriculum

(30)

Self Assessment (30)

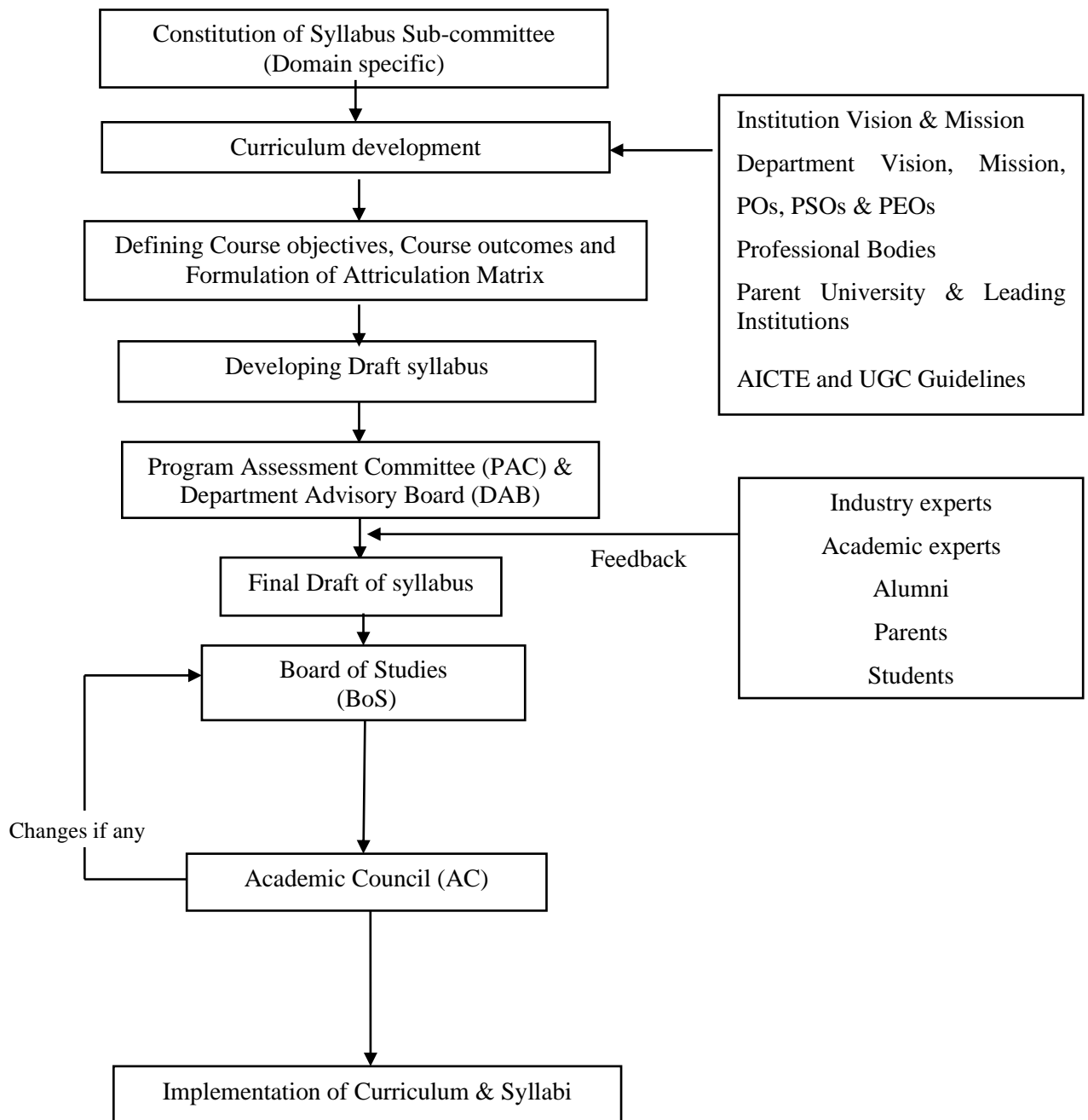
2.1.1 State the process for designing the program curriculum(10)

Self Assessment (10)

(Describe the process that periodically documents and demonstrates how the program curriculum is evolved considering the POs and PSOs)

The curriculum development is a systematic, multi-step process which includes high level of participation, discussion and critical reviews involving all the stakeholders. It starts with considering broad guidelines of the Institute, referring other leading institutes/Universities, guidelines of AICTE/UGC, industry demands and requirements of POs and PSOs. The Programme Assessment Committee (PAC) which consists of the department's faculty members constitutes syllabus sub-committee based on the specialization of faculty members. The sub-committee prepares draft curriculum, course outcome and syllabi. The programme curriculum is reviewed and restructured by Programme Assessment Committee (PAC) and Department Advisory Board (DAB). After incorporating the suggestions made in these forums, feedbacks are collected from Industry experts and academic experts of reputed Institutions to strengthen the contents of curriculum. The structured curriculum and syllabi are placed in the Board of Studies of the Department which has expert members from parent University, Industry, leading academic institutes and Alumni. The corrections/suggestions from BoS members are incorporated in the curriculum and syllabi. Finally, the curriculum and syllabi are placed in the Academic Council of the Institute, which is the highest academic body of the institute. The Academic council is chaired by the Principal and comprises of Deans/ HoD's, senior faculty members of the Institute as members. In addition to the institute members it has expert members from parent University, Industry and leading institutions. The process for designing the program curriculum is illustrated in Figure 2.1.1a.





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Figure B.2.1.1a Curriculum Design and Development Process

In addition, the Institute will have the separate committee to review and ensure the effective implementation of curriculum and syllabi, proper management of academic, financial and general administrative affairs which are all constituted as per the guidelines of UGC.



The POs/PSOs are evaluated for the programme every year and it is analyzed by the Programme Assessment Committee Members and Department Advisory Board Members. The entire process is illustrated in Figure B.2.1.1a. above.

The proceedings of PAC started and the minutes of the meeting are recorded as follows:

Item 1.01	Welcome and introduction of members	
	Dr. M. Easwaramoorthi, Chairman PAC introduced and welcomed the members followed by a brief note on functioning of PAC	
Item 1.02	Review of the previous PAC Meeting minutes.	
Discussion	PAC Chairman presented the previous PAC meeting minutes (date) and action taken report.	
Resolution	Resolved to approve the PAC Meeting minutes	
Item 1.03	Pitfalls and difficulties in the existing curriculum	
Discussion	<ul style="list-style-type: none"> ▪ Members suggested including programing courses after 2nd semester for the benefit of lateral entry students. ▪ Placement coordinators opined to provide credits to the students those who are undergoing industry related placement training. ▪ Members suggested to modify the Engineering Graphics syllabus by incorporating laboratory practice ▪ Dr. MEM stressed the need for adding electronics courses to Mechanical Engineering students and suggested to have electrical and electronics as two separate courses. ▪ Members suggested to consider the actual credits earned through online courses while giving exemption of courses. 	
Resolution	Resolved to consider the suggestions of members in the upcoming curriculum	
Item 1.04	Ratification of courses - R17 curriculum	
Discussion	PG coordinator requested to ratify the following courses which were offered to PhD scholars as a part of their course work in the next BoS. 17EDX29 - Design of Biomass Conversion Technology 17EDX30 - Welding Metallurgy 17EDX31 - Materials Characterization	
Resolution	Resolved to place the syllabus of the above courses in 10 th BoS.	
Item 1.05	Revision of Department Vision, Mission, PEOs and PSOs	
Discussion	PAC reviewed the Vision, Mission statements of the department and PSO, and suggestions given by the experts at various occasions. It was decided to make changes and place before DAB and BoS for approval.	
Resolution	Resolved to approve the decisions and place the same in the next DAB and BOS.	
Item 1.06	New Regulation (R22) and Curriculum	
Discussion	<ul style="list-style-type: none"> ▪ PAC Chairman explained the need for new regulation (R22) and guidelines for framing curriculum based on AICTE model curriculum. ▪ BoS coordinator suggested including certification courses as non-credit mandatory courses in the curriculum. He also explained the benefit of identifying important certification courses which would provide skills required to get placement. ▪ PAC members suggested making provision in the next regulation for considering the full credits earned by the students while giving course exemption in lieu of online courses. 	
Resolution	Resolved to include the above suggestion and place before DAB and BOS meeting.	
Item 1.07	Department activity plan for the academic year 2022 – 2023.	
	Students Association incharge presented the activity action plan as listed below.	
	S. No.	Activity
	1.	SOME Association inaugural
	2.	Academic seminar-1
	3.	Industrial seminar-1
	4.	Workshop-1
	5.	Inter-department meet
	6.	Intra-department meet
	7.	Symposium & Workshops
		Month
		3 rd week of August 2022
		4 th week of August 2022
		4 th week of September 2022
		3 rd week of October 2022
		1 st week of November 2022
		1 st week of January 2023
		3 rd week of February 2023

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	8.	Academic seminar-2	2 nd week of March 2023		
	9.	Industrial seminar-2	1 st week of April 2023		
Resolution	Resolved to approve the list of activities.				
Item 1.08	Result Analysis and Attainment of the CO, PO and PSO.				
Discussion	Exam cell coordinator presented the end semester results for year 2021-22 (Odd & Even). Academic coordinators of Batch 2015-2019, Batch 2016-2020 and Batch 2016-2021 presented the PO & PSO target and attainment. The PO attainment of PO-8, PO-9 & PO-10 was found to be below the target. PAC members were informed to analyze the reasons and take remedial measures to improve the attainment of POs.				
Resolution	Resolved to record the performance.				
Item 1.09	Discussion on budget utilization (2021-22) and budget requirements for 2022-23				
Discussion	Budget coordinator presented the budget utilization details of year 2021-22 and 2022-23 budget requirements.				
	Year	Budget proposed	Budget approved	Utilization	Remarks
	2021-22	1844275	1565270	1086921	
	2022-23	2728499	2728499	-	
Resolution	Resolved to record the budget details				
Item 1.10	Annual Report – 2021-22.				
Discussion	Department coordinator (monthly reports) presented the annual report of year 2021-22. Chairman- PAC opined that paper publications, project funding and faculty industrial training found to be improved. He requested faculty members to concentrate on the above areas.				
Resolution	Resolved to record the annual report.				
Item 1.11	Any other matter				
	Alumni coordinator has suggested the following points <ul style="list-style-type: none"> ▪ Motivate passed out students to register in the Alumni portal. ▪ Entry of Alumni salary packages details in the Alumni portal. Placement coordinator has suggested motivating students to register online courses to earn credits and trying to get exemption course in the final year so as have sufficient time for placement training/internship/preparing for higher studies.				

Date: 17-6-2022


 CHAIRMAN
 PAC- MECH

HEAD OF THE DEPARTMENT
 DEPARTMENT OF MECHANICAL ENGINEERING
 NANDHA ENGINEERING COLLEGE
 ERODE- 638 852

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Item 1.07	New Regulation [R22] and Curriculum with academic and industry expert comments																																		
Discussion	<p>DAB Chairman explained the need for new regulation (R22) and guidelines for framing curriculum based on AICTE model curriculum. Also presented the discussions of PAC as given below:</p> <ul style="list-style-type: none"> BoS coordinator suggestion of including certification courses as non-credit mandatory courses in the curriculum. He also explained the benefit of identifying important certification courses which would provide skills required to get placement. PAC members suggestion of making provision in the next regulation for considering the full credits earned by the students while giving course exemption in lieu of online courses. <p>Dr. Saravanan Indoshell Cast appreciated for incorporating practical component in the course "Engineering Graphics and Design" and suggested to put appropriate word for Design since students would be doing drafting work.</p> <p>Dr. PNK Kongu Engg. College suggested to refer AICTE model curriculum while framing syllabus for courses and appreciated for introducing Electrical and Electronics as two separate courses. He further suggested framing syllabus for above courses in consultation with industries since electric vehicles are emerging field.</p>																																		
Resolution	Resolved to include the suggestion of DAC members and placing it before next BOS meeting.																																		
Item 1.08	Department activity plan for the academic year 2022 – 2023.																																		
Discussion	<p>Dr. MEM presented the tentative Student's Association (SOME) activity plan for the year 2022-2023 as listed below.</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Activity</th> <th>Month</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>SOME Association inaugural</td> <td>3rd week of August 2022</td> </tr> <tr> <td>2.</td> <td>Academic seminar-1</td> <td>4th week of August 2022</td> </tr> <tr> <td>3.</td> <td>Industrial seminar-1</td> <td>4th week of September 2022</td> </tr> <tr> <td>4.</td> <td>Workshop-1</td> <td>3rd week of October 2022</td> </tr> <tr> <td>5.</td> <td>Inter-department meet</td> <td>1st week of November 2022</td> </tr> <tr> <td>6.</td> <td>Intra-department meet</td> <td>1st week of January 2023</td> </tr> <tr> <td>7.</td> <td>Symposium & Workshops</td> <td>3rd week of February 2023</td> </tr> <tr> <td>8.</td> <td>Academic seminar-2</td> <td>2nd week of March 2023</td> </tr> <tr> <td>9.</td> <td>Industrial seminar-2</td> <td>1st week of April 2023</td> </tr> </tbody> </table>					S. No.	Activity	Month	1.	SOME Association inaugural	3 rd week of August 2022	2.	Academic seminar-1	4 th week of August 2022	3.	Industrial seminar-1	4 th week of September 2022	4.	Workshop-1	3 rd week of October 2022	5.	Inter-department meet	1 st week of November 2022	6.	Intra-department meet	1 st week of January 2023	7.	Symposium & Workshops	3 rd week of February 2023	8.	Academic seminar-2	2 nd week of March 2023	9.	Industrial seminar-2	1 st week of April 2023
S. No.	Activity	Month																																	
1.	SOME Association inaugural	3 rd week of August 2022																																	
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6.	Intra-department meet	1 st week of January 2023																																	
7.	Symposium & Workshops	3 rd week of February 2023																																	
8.	Academic seminar-2	2 nd week of March 2023																																	
9.	Industrial seminar-2	1 st week of April 2023																																	
Resolution	Members noted the above Association Activity plan for the academic year 2022 – 2023 and resolve to approve.																																		
Item 1.09	Result Analysis and Attainment of the CO, PO and PSO (Target fixed and attained) of 2021 passed out batch students.																																		
Discussion	The attainment of the program outcomes 8, 9 & 10 was found to be below 50% only. Hence Dr.MEM suggested the faculty members to identify the reason for low attainment that can improve.																																		
Resolution	Resolved to record the attainment.																																		
Item 1.10	Student admission quality																																		
Discussion	<p>Dr. MEM presented the details of students admitted in the year 2021-22</p> <ul style="list-style-type: none"> Counseling students – 51 Management students – 7 Maximum cut-off – 130 Minimum cut-off – 81 																																		
Resolution	Resolved to record the details																																		
Item 1.11	Discussion on Budget requirement and Utilization.																																		
Discussion	<p>Dr. MEM presented the budget utilization details of year 2021-22 and 2022-23 budget requirements.</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Budget proposed</th> <th>Budget approved</th> <th>Utilization</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>2021-22</td> <td>150000</td> <td>123208</td> <td>68449</td> <td>-</td> </tr> <tr> <td>2022-23</td> <td>2728499</td> <td>2728499</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>Members clarified the details of equipment to be purchased and its utilization to improve the attainment of CO, PO and PSO. Dr. MEM explained various heads of budget and proposals of purchasing software/hardware equipment.</p>					Year	Budget proposed	Budget approved	Utilization	Remarks	2021-22	150000	123208	68449	-	2022-23	2728499	2728499	-	-															
Year	Budget proposed	Budget approved	Utilization	Remarks																															
2021-22	150000	123208	68449	-																															
2022-23	2728499	2728499	-	-																															
Resolution	Resolved to approve proposed budget																																		

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The constitution and functions of various committees involved in the curriculum development process are explained below.

Syllabus sub-committee

The sub-committee consists of faculty members from department. They are grouped into teams based on their specialization and use the inputs which are gained during the subject handling/ acting as course coordinators. The suggestions and recommendations made by the sub-committee members are taken into consideration while developing curriculum and syllabi.

Programme Assessment Committee (PAC)

Programme Assessment Committee (PAC) consists of HoD, faculty members of the parent and service departments. The committee meets two times in an academic year to review the following functions:

- Formulation / Reviewing the Vision and Mission of the department
- Framing / Reviewing the Programme Educational Objectives (PEOs), Programme Outcomes (POs) and Programme Specific Outcomes (PSOs)
- Monitoring the assessment and attainment of PEOs, POs and PSOs
- Providing suggestions to Board of Studies for inclusion, modification of courses / contents.

Department Advisory Board (DAB)

Department Advisory Board (DAB) consists of HoD, industry experts, academic experts, senior faculty members, alumni, parents and students. The frequency of the meeting will be once in a year. The DAB reviews the following

- Formulation / Reviewing the Vision and Mission statements of the department and the consistency with the Institute Vision and Mission statements.
- Reviewing the Programme Educational Objectives (PEOs), Programme Outcomes (POs) and Programme Specific Outcomes (PSOs) and recommendations of PAC
- Reviewing attainment of PEOs, POs and PSOs and providing suggestions for improvements in the curriculum and syllabi/other activities with attainment perspectives.



Board of Studies (BoS)

Composition of Board of Studies:

- Head of the Department concerned (Chairman).
- The senior faculty of the department.
- Two subject experts from outside the Parent University to be nominated by the Academic Council.
- One expert to be nominated by the Vice-Chancellor from a panel of six recommended by the college Principal.
- One representative from industry/corporate sector/ allied area relating to placement.
- One postgraduate meritorious alumnus to be nominated by the Principal.

Board of Studies takes up planning of appropriate programs of study and the implementation of effective teaching. The Board of Studies of a Department in the college


- Prepares syllabi for various courses keeping in view the objectives of the college, reviewing and updating syllabi from time to time, introducing new courses of study, determining details of continuous assessment with the interest of the stakeholders and national requirement for consideration and approval of the Academic Council
- Suggest methodologies for innovative teaching and evaluation techniques
- Suggest panel of names to the Academic Council for appointment of examiners and
- Coordinate research, teaching, extension and other academic activities in the department/ college. Board of Studies meetings are conducted regularly.

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Table: B 2.1.1a Involvement of Industry in designing programme curriculum

Sl. No	Members	Representation	Representative as
1	Mr. Pradeep Chandrasekaran Associate Director - Vehicle Engineering, OLA Electric Technologies Pvt Ltd. Bengaluru	Member (Expert from Industry)	BoS Member
2	Mr. Karthikeyan Rajamanickam Dev Ops Engineer, Eleviant Tech. Coimbatore	Alumni	
3	Dr. V. S. Saravanan, Junior Vice president, Indo Shell Cast private Ltd Coimbatore	Industry Expert	DAB Member
4	Mr. J. Bharatkumar, Senior Executive, Product compliance analyst, Kohler Powers, Pune	Alumni	
5	Mr. N. Lakshminarasimhan, General Manager (Personnel & HR), Brakes India Private Ltd., Padi, Chennai – 600 050	Industry expert	Academic Council Member
6	Mr. N. Meyyappan, Founder and Managing Director, Top Freshers Technologies Private Limited, Poonamallee Road, Ramapuram, Chennai – 600 089	Industry expert	

	NANDHA ENGINEERING COLLEGE (AUTONOMOUS) ERODE – 52 DEPARTMENT OF MECHANICAL ENGINEERING	
	BOARD OF STUDIES	
MEETING NO. 10	MODE: OFFLINE MODE	
VENUE: BOARD ROOM	DATE: 30.07.2022 & TIME: 10.30 am	

AGENDA	
Item 10.01	Welcome address and Introduction of members.
Item 10.02	Review and approval of the 9 th BOS meeting minutes and ATR
Item 10.03	Review and approval of the PAC and DAB meeting minutes & ATR
Item 10.04	Review of Institute Vision & Mission
Item 10.05	Review and approval of Department Vision, Mission, PEOs and PSOs
Item 10.06	Review of Correlation between the Vision and Mission statement of Institute and Department, correlation between PEOs and POs.
Item 10.07	UG- B.E., Mechanical Engineering Programme Approval of <ul style="list-style-type: none"> ▪ Curriculum (R22) ▪ Syllabus- 1st & 2nd semesters and CO –PO/PSO Mapping
Item 10.08	Review on <ul style="list-style-type: none"> ▪ analysis of CO- PO/PSO mapping and attainment ▪ approval of CO & PO attainment target
Item 10.09	PG- M.E., Engineering Design Programme Approval of <ul style="list-style-type: none"> ▪ Curriculum and syllabus (R22) ▪ CO –PO/PSO Mapping
Item 10.10	Ratification of PSE/OE courses in R17 (UG & PG) if any.
Item 10.11	Approval/ Ratification of one credit courses
Item 10.12	Approval of Panel of Examiners (UG & PG)
Item 10.13	Any other matter
	Vote of Thanks


CHAIRMAN

BoS- Mechanical Engineering
Dr. M.EASWARAMOORTHY M.E., Ph.D.,
 Head of the Department,
 Department of Mechanical Engineering
 Nandha Engineering College (Autonomous)
 ERODE - 638 052.



NANDHA ENGINEERING COLLEGE, ERODE - 638 052
 (An Autonomous Institution, Affiliated to Anna University Chennai and
 Approved by AICTE New Delhi)

MINUTES OF THE 10th BOARD OF STUDIES MEETING

Name of the Body	Board of Studies
Name of the Board	Mechanical Engineering
Meeting No.	10
Date & Time	30.07.2022, 10.30 am
Mode	Offline Mode

NANDHA ENGINEERING COLLEGE, ERODE - 638 052
 (An Autonomous Institution, Affiliated to Anna University Chennai and
 approved by AICTE New Delhi)

Minutes of 10th Board of Studies Meeting (BoS) held on 30.07.2022

The 10th Board of Studies (BoS) meeting was held on 30.07.2022 by 10.30 am at Board room, Nandha Engineering College. The members attended the meeting are given in Annexure I.

Dr. M. Easwaramoorthi, Chairman (BoS) and Professor & HoD, Mechanical Engineering chaired the meeting, welcomed all the members to the 10th BoS meeting followed by introduction of the members. After the brief introduction, the agenda items listed below were taken up for discussion and the following resolutions were passed.

AGENDA	
Item 10.01	Welcome address and Introduction of members.
Item 10.02	Review and approval of the 9 th BOS meeting minutes and ATR
Item 10.03	Review and approval of the PAC and DAB meeting minutes & ATR
Item 10.04	Review of Institute Vision & Mission
Item 10.05	Review and approval of Department Vision, Mission, PEOs and PSOs
Item 10.06	Review of Correlation between the Vision and Mission statement of Institute and Department, correlation between PEOs and POs.
Item 10.07	<p>UG- B.E., Mechanical Engineering Programme Approval of</p> <ul style="list-style-type: none"> ▪ Curriculum (R22) ▪ Syllabus - 1st & 2nd semesters with CO –PO/PSO Mapping. <p>Semester -1</p> <ul style="list-style-type: none"> ▪ Course-1: Engineering Graphics and Drafting ▪ Course-2: Engineering Graphic (Common to EEE, AGRI, Civil, Chemical Branches) ▪ Course-3: Engineering Graphics Laboratory (Common to ECE, BME & CSE and IT Branches) ▪ Course-4: Engineering Practices Laboratory <p>Semester -2</p> <ul style="list-style-type: none"> ▪ Course-1: Engineering Mechanics
Item 10.08	Review on <ul style="list-style-type: none"> ▪ analysis of CO- PO/PSO mapping and attainment ▪ fixing PO attainment target for batch 2022-26
Item 10.09	<p>PG- M.E., Engineering Design Programme Approval of</p> <ul style="list-style-type: none"> ▪ Curriculum and syllabus (R22) ▪ CO –PO/PSO Mapping
Item 10.10	Ratification of PSE/OE courses in R17 (PG)
Item 10.11	Approval/ Ratification of one credit courses
Item 10.12	Approval of Panel of Examiners (UG & PG)
Item 10.13	Any other matter
	Vote of Thanks



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	<p><u>MISSION (UG)</u></p> <ul style="list-style-type: none"> ▪ To provide quality education to produce Mechanical Engineering professionals with social responsibility ▪ To excel in research in the field of Mechanical Engineering ▪ To be a learner centric environment with continual progress to meet the global needs. <p><u>VISION (PG)</u></p> <p>To be a centre of excellence providing Engineering Design education to meet the ever growing needs of the society.</p> <p><u>MISSION (PG)</u></p> <ul style="list-style-type: none"> ▪ To provide quality education to produce Engineering Design professionals with social responsibility. ▪ To excel in research in the field of Engineering Design ▪ To be a learner centric environment with continual progress to meet the global needs of industry. <p>✓ Members unanimously stated that the Vision and Mission of the Department should be in line with the vision and mission of the Institute. After detailed deliberations, the board expressed their satisfaction over the statements of Program Educational Objectives.</p> <p>✓ Dr. V. Arul Mozhi Selvam opined to</p> <ul style="list-style-type: none"> ▪ Change UG programme's 2nd mission as "To excel in research in the thrust areas of Mechanical Engineering by solving real world problems. ▪ Change PG programme's 2nd mission as "To excel in research in the field of Engineering Design by solving real world problems. ▪ Add action verb "create" in 3rd UG programme's mission statement (To create a leaner centric environment.....) <p>✓ Dr. S. J. Vijay suggested checking and modifying PG programme PO2 and PSO2 since it seems to be same.</p>
Resolution	Resolved to approve the modification in the Department Vision, Mission, PEOs and PSOs statements.
Item -10.06	Review of Correlation between the Vision and Mission statements of Institute and Department, and correlation between PEOs and POs.
Discussion	<ul style="list-style-type: none"> ✓ Dr. MEM presented the correlation between the Institute and department Vision, Mission, PEOs and POs statement . ✓ Dr. S.J.Vijay clarified the correlation matrix for Vision, Mission and PEO. ✓ Other members appreciated the efforts taken for bringing changes.
Resolution	Resolved to approve the Correlation matrix.
Item -10.07	<p>UG- B.E., Mechanical Engineering Progrmme</p> <p>Approval of</p> <ul style="list-style-type: none"> ▪ Curriculum (R22) ▪ Syllabus - 1st & 2nd semesters and CO -PO/PSO Mapping. <p style="text-align: center;"><u>Semester -1</u></p> <ul style="list-style-type: none"> ▪ Course-1: Engineering Graphics and Drafting



	<ul style="list-style-type: none"> ▪ Course-2: Engineering Graphic (Common to EEE, AGRI, Civil, Chemical) ▪ Course-3: Engineering Graphics Laboratory (Common to ECE, BME, CSE & IT) ▪ Course-4: Engineering Practices Laboratory <p style="text-align: center;"><u>Semester -2</u></p> <p>Course-1: Engineering Mechanics</p>
Discussion	<ul style="list-style-type: none"> ✓ Dr. MEM BoS Chairman explained the need for new regulation (R22) and presented the proposed curriculum R22 developed based on AICTE model curriculum. ✓ Dr. S. J. Vijay suggested to combine few courses such as Manufacturing Process and Materials Engineering Technology in semester 3 & 4. ✓ Mr. Pradeep Chandrasekaran Industry expert recommended to add Automobile Engineering course in Professional core instead of elective. ✓ Dr. S. J. Vijay, Dr. V. Arul Mozhi Selvam, Mr. Pradeep chandrasekaran, Mr. Karthikeyan Rajamanickam suggested to <ul style="list-style-type: none"> ▪ Include one textbook written by international authors and another textbook by Indian authors. ▪ Order the reference books by considering the contents of the book with relevance to the syllabus. <p><u>Semester -1</u></p> <p><u>Course-1: Engineering Graphics and Drafting (Theory + Lab) (Mechanical)</u></p> <p>Dr. MEM presented the Engineering Graphics and Drafting (Theory + Lab) syllabi No comments</p> <p><u>Course-2: Engineering Graphics (Common to EEE, AGRI, Civil, Chemical)</u></p> <ul style="list-style-type: none"> ✓ Dr. MEM presented the Engineering Graphics syllabus. ✓ Dr. S. J. Vijay suggested to include topics on projection of orthographic and isometric views for pyramid/ prism using free hand sketching. <p><u>Course-3: Engineering Graphics Laboratory (Common to ECE, BME & CSE and IT programmes)</u></p> <ul style="list-style-type: none"> ✓ Dr. MEM presented the Engineering Graphics Laboratory syllabus. ✓ No comments <p><u>Course-4: Engineering Practices Laboratory –</u></p> <ul style="list-style-type: none"> ✓ Dr. MEM presented syllabi of Engineering Practices Laboratory course ✓ Dr. S. J. Vijay suggested considering for removing the topics on pipe threading since it is studied in the later semesters. BoS Chairman clarified that the course is offered to other than mechanical engineering programmes also. So it would be useful for them to know about threading. <p><u>Semester -2</u></p> <p><u>Course-1: Engineering Mechanics</u></p> <ul style="list-style-type: none"> ✓ Dr. MEM presented the Engineering Mechanics syllabi. ✓ Dr. V. Arul Mozhi Selvam suggested including a text book on Engineering Mechanics by S. S. Bhavikatti.
Resolution	Resolved to approve the changes suggested by the members.



Item- 10.08	Review on <ul style="list-style-type: none"> ▪ Analysis of CO, PO and PSO mapping and attainment ▪ Fixing PO attainment target for batch 2022-26 																
Discussion	BoS Chairman presented PO and PSO target and its attainment of BATCH (2017 – 21) BATCH (2017 – 21), PO, PSO & CO ATTAINMENT Target – 65 %																
	Attainment	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4
		2.14	1.97	2.03	1.71	2.06	2.01	2.04	1.42	1.46	1.48	2.03	1.89	1.98	2.02	1.56	1.48
	% of attainment	71	67	66	61	68	53	66	50	56	59	67	65	65	67	52	49
Resolution	Resolved to record the PO/PSO attainment and approve the target.																
Item -10.09	PG- M.E., Engineering Design Programme Approval of Curriculum and syllabus (R22) and CO –PO/PSO Mapping																
Discussion	<ul style="list-style-type: none"> ✓ Dr. MEM BoS Chairman presented the PG- M.E- Engineering Design Curriculum and syllabus (R22). ✓ Dr. V. Arul Mozhi Selvam shared the practice followed in NIT Trichy for PG programmes and suggested similar pattern of allowing students to complete all theory and laboratory courses in the first year itself followed by one year project in the 2nd year. ✓ Dr. MEM clarified the provision given to the PG students for completing all theory courses in 3rd semester in the first year itself by studying additional courses (add-on), completing NPTEL online courses of equivalent credits and claiming course exemptions. <p>Semester -1</p> <ul style="list-style-type: none"> ✓ Course-1: Concepts of Engineering Design ✓ Course-2: Mechanical Vibrations ✓ Course-3: Failure Analysis and Design ✓ Course-4: Computer Applications in Design ✓ Course-5: Design for Manufacture, Assembly and Environments 																



	<p>Semester -2</p> <ul style="list-style-type: none"> ✓ Course-6: Computer Aided Modeling Lab ✓ Course-7: Advanced Finite Element Analysis ✓ Course-8: Mechanisms Design and Simulation ✓ Course-9: Integrated Mechanical Design ✓ Course-10: Analysis and Simulation Lab ✓ Course-11: Technical Seminar <p>Semester -3</p> <ul style="list-style-type: none"> ✓ Course-12: Project Work Phase - I ✓ Course-13: Industrial Training <p>Semester -4</p> <ul style="list-style-type: none"> ✓ Course-14: Project Work Phase – II <p>BoS members verified the topics of syllabus and ensured the contents at par with other leading Universities and Parent University.</p> <p>Professional Elective Course</p> <p>Design of Fluid Power systems, Composite Materials and Mechanics, Mechanical Behavior of Materials, Maintenance Engineering, Design of Material Handling Equipment, Experimental Stress Analysis, Advanced Tool Design, Biomechanics, Mechatronics in Manufacturing Systems, Bearing Design and Rotor Dynamics, Additive Manufacturing, Advanced Metal Forming Techniques, Optimization Techniques in Design, Computational Fluid Dynamics, Design of Pressure Vessel and Piping, Design of Heat Exchangers, Productivity Management and Re-Engineering, Design for Internet of Things, Design for Six Sigma, Advanced Strength of Materials, Tribology in Design, Nano-materials and Nano Technology, Micro Electro Mechanical Systems, Surface Engineering, Engineering Fracture Mechanics, Industrial Robotics and Expert systems, Product Lifecycle Management, Quality Concepts in Design, Design of Biomass Conversion Technology, Welding Metallurgy, Materials Characterization.</p>
Resolution	Resolved to approve the curriculum & syllabus.
Item -10.10	Ratification of PSE courses in R17 (PG)
Discussion	<p>Dr. MEM presented and requested to ratify the following courses which were offered to PhD scholars as a part of their course work.</p> <p>17EDX29 - Design of Biomass Conversion Technology</p> <p>17EDX30 - Welding Metallurgy</p> <p>17EDX31 - Materials Characterization</p> <p>No comments.</p>
Resolution	Resolved to approve the syllabi
Item -10.11	Approval/ Ratification of one credit courses
Discussion	<p>Dr. MEM presented the syllabus of following one credit courses which were offered to UG student and requested to ratify.</p> <p>17MEI08 – Advanced Industrial Automation and Robotics</p> <p>17MEI06 – Industrial Automation and Control (SCADA & HMI)</p>



	17MEI07-Numerical Modeling of Physics Systems In The Virtual Domain Using CFD Dr. V. Arul Mozhi Selvam requested industry expert Mr. Pradeep about the scope of offering similar courses in the emerging areas of Mechanical Engineering. Mr. Pradeep assured to support the college after consulting their higher officials.
Resolution	Resolved to ratify the one credit courses.
Item -10.12	Approval of Panel of Examiners (UG & PG)
Discussion	BoS members clarified about minimum eligibility fixed for becoming a panel of examiner. Dr. MEM explained the process of preparing panel of examiner for question paper setting, valuation and laboratory examinations based on the examiner specialization viz., Design, Thermal, Manufacturing and Management. The minimum experience of 5 years' is fixed for being an examiner.
Resolution	Resolved to approve the panel of Examiners for question paper setting, valuation and laboratory examinations
Item -10.13	Any other matter - Nil

Finally, Dr. S. Magibalan - BoS Coordinator thanked all the members for their active participation.



Date: 30.07.2022

(Signature)
Dr. M. Easwaramoorthi
 (Chairman, BoS - Mechanical Engineering)

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NANDHA ENGINEERING COLLEGE
(Autonomous Institution)
Pitchandampalayam, Erode To Perundurai Road, Erode-638 052

BOARD OF STUDIES

Academic Year: 2021 – 2022

Date: 30.07.2022

Board	Mechanical Engineering	Meeting No.	10	R2022
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LIST OF MEMBERS

Sl. No	Members	Representation	Signature
1	Dr. M.Easwaramoorthi, Professor & Dean – Mechanical	Chairman	
2	Dr. S. P. Vendan, Professor, Department of Mechanical Engineering, PSG College of Technology, Coimbatore – 641 004	University Nominee	Leave of absence
3	Dr. V. Arul Mozhi Selvam, Associate Professor, Department of Mechanical Engineering, National Institute of Technology, Tiruchirappalli – 620015	Expert Nominee (Nominated by Academic Council)	 30/7/22
4	Dr. S. J. Vijay, Professor, Department of Mechanical Engineering, Karunya Institute of Technology and Sciences, Coimbatore – 641114	Expert Nominee (Nominated by Academic Council)	 30/7/22
5	Mr. Pradeep Chandrasekaran Associate Director - Vehicle Engineering, OLA Electric Technologies Pvt Ltd. Bengaluru	Member (Expert from Industry)	 30/7/22
6	Mr. Karthikeyan Rajamanickam Dev Ops Engineer, Eleviant Tech. Coimbatore	Alumnus	





NANDHA ENGINEERING COLLEGE
(Autonomous Institution)
Pitchandampalayam, Erode To Perundurai Road, Erode-638 052

BOARD OF STUDIES

LIST OF MEMBERS (INTERNAL MEMBERS)

Sl.No	Members	Representation	
1.	Dr. M. Muthukumar, Professor – Mechanical	Senior Members	<i>M. Muthukumar</i> 30/7/22
2.	Dr. B. Ashok Kumar, Professor – Mechanical		<i>B. Ashok Kumar</i> 30/7/22
3.	Dr. M.K. Murthi, Associate Professor – Mechanical		<i>M.K. Murthi</i> 30/7/22
4.	Dr. S. Magibalan, Associate Professor - Mechanical		<i>S. Magibalan</i>
5.	Dr. A. Peramanan, Associate Professor – Mechanical		Leave of absence
6.	Mr. V.N. Loganathan, Assistant Professor - Mechanical		<i>V.N. Loganathan</i> 20/7
7.	Mr. M. Shanmugam, Assistant Professor - Mechanical		<i>M. Shanmugam</i> 30/7/22
8.	Mr. M. Sengottaiyan, Assistant Professor - Mechanical		<i>M. Sengottaiyan</i> 30/7/22
9.	Mr. S. Eswaran, Assistant Professor - Mechanical		<i>S. Eswaran</i> 30/7/22
10.	Mr. T. Venkateshan, Assistant Professor - Mechanical		<i>T. Venkateshan</i> 20.7.22
11.	Mr. R. Rajkumar, Assistant Professor - Mechanical		<i>R. Rajkumar</i> 30.7/22

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Figure 2.1.1b Snapshots of BoS Meeting

Academic Council (AC)

Academic Council which is the highest academic body of the Institute scrutinizes and approves the proposals of the Boards of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications. The AC is chaired by the Principal of the Institute. The council comprises of members drawn from the various departments of the Institute, experts from industry, including representatives of university.





NANDHA ENGINEERING COLLEGE(Autonomous)

ERODE- 638 052

10th ACADEMIC COUNCIL MEETING

Venue : Board Room, NEC

Date : 20.08.2022 & Time : 10.30 AM

AGENDA

ITEM 10.01	Welcome by the Principal & Introduction of members
ITEM 10.02	Approval of the minutes of Academic Council meeting as follows: <ul style="list-style-type: none"> • 9th Academic Council meeting held on 06-09-2021 & Action taken • 9A Special Academic Council meeting held on 11.04.2022 • 9B Special Academic Council meeting held on 20.04.2022
ITEM 10.03	<ul style="list-style-type: none"> • Review of Vision and mission of the Institute • Review of Vision and mission of the Departments - All Programmes • Approval of the minutes of BoS meeting - All Programmes (for Academic year 2021-22). • Presentation of curriculum and syllabi approved in BoS meeting by Chairperson BoS.
ITEM 10.04	Approval of the new academic regulation R22 (UG and PG) Amendments in Regulation R17 (UG + PG)
ITEM 10.05	<ul style="list-style-type: none"> a) Presentation of results - UG programmes <ul style="list-style-type: none"> • 2020-21 Even and 2021-22 Odd semester results • Degree awarded (FC, FCD, Year wise, Degree wise, Program wise) b) Report of Malpractice committed by the students in internal and end semester examinations. c) R17: List of debarred and rejoined students for UG and PG programmes during 2021-22 R17: Attendance shortage below 65% d) Details of one credit and online courses studied during 2021-22 academic year.
ITEM 10.06	<p>New programme and variation in sanctioned intake (existing programmes)</p> <p>UG:</p> <ul style="list-style-type: none"> • B.E. - Computer Science and Engineering (Cyber Security) • B.E. - Computer Science and Engineering (Internet of Things) • B.E - Mechanical Engineering (variation in intake) <p>PG: Structural, VLSI, ED and CSE (variation in intake)</p>



ITEM 10.07	Accreditation - NAAC & NBA .
ITEM 10.08	<ul style="list-style-type: none">• Review and Approval of Institute Research policy.• Authorize Head of the Institute to receive the funding from various funding agencies.
ITEM 10.09	Any other matter
ITEM 10.10	Vote of Thanks - Dr. M. Muthukumar, Member Secretary.



A handwritten signature in blue ink, appearing to read "N. Jayaraman".

Principal & Chairman - Academic Council

PRINCIPAL
Nandha Engineering College
(Autonomous)
Erode - 638 052.

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**NANDHA ENGINEERING COLLEGE,
ERODE - 638 052**

(An Autonomous Institution, Affiliated to Anna University Chennai and
Approved by AICTE New Delhi)

MINUTES OF THE 10TH ACADEMIC COUNCIL MEETING

Name of the Body	Academic Council
Meeting No.	10
Date & Time	20.08.2022, 10.30 am
Venue	Board Room, Nandha Engineering College (Autonomous)

Minutes of 10th Academic Council meeting, dated: 20.08.2022 Page 1





NANDHA ENGINEERING COLLEGE, ERODE - 638052

(An Autonomous Institution, Affiliated to Anna University Chennai and approved by AICTE New Delhi)

Minutes of 10th Academic Council Meeting (20th August 2022)

The Tenth meeting of the Academic Council for Nandha Engineering College was held on 20.08.2022 by 10.30 am at Board Room, Nandha Engineering College, Erode. The list of members attended the meeting is given in Annexure I.

ITEM 10.01	Welcome by the Principal & Introduction of members
	Dr. N. Rengarajan, Principal & Chairperson of the Academic Council welcomed all the members and introduced the external members. Further, he requested the internal members to introduce themselves and briefed the agenda items.
ITEM 10.02	Approval of the minutes of Academic Council meeting: <ul style="list-style-type: none"> • 9th Academic Council meeting held on 06-09-2021 & Action taken • 9A Special Academic Council meeting held on 11.04.2022 • 9B Special Academic Council meeting held on 20.04.2022
Discussion	<ul style="list-style-type: none"> • Dr. N. Rengarajan, Principal & Chairman of the Academic Council presented the minutes of the 9th meeting of Academic Council held on 06.09.2021, action taken or the same, 9A Special Academic Council meeting held on 11.04.2022 and 9B Special Academic Council meeting held on 20.04.2022.
Resolution	Noted the contents of the minutes of the 9 th Academic Council meeting held on 06.09.2021, 9A Special Academic Council meeting held on 11.04.2022 and 9B Special Academic Council meeting held on 20.04.2022 and resolved to approve the same. Action Taken Report (ATR) of the 9 th academic council was also noted by the members and approved.
ITEM 10.03	<ul style="list-style-type: none"> • Review of Vision and mission of the Institute • Review of Vision and mission of the Departments - All Programmes • Approval of the minutes of BoS meeting - All Programmes (for Academic year 2021-22). • Presentation of curriculum and syllabi approved in BoS meeting by Chairperson BoS.
Discussion	<p>✓ Principal presented the statements of the vision and mission of the institute and various departments to the Academic Council members for any suggestion from the members. The members suggested the following modifications regarding vision and mission statements of the institute:</p> <ul style="list-style-type: none"> ➤ Dr. N. Natchimuthu (MIT campus) advised to consider the inclusion of word "ever growing or ever changing" in the vision statement. ➤ Mr. N. Lakshminarasimhan (Brakes India) and Dr. K. Ruckmani (Anna University, Tiruchirappalli) suggested to reorder the mission

Minutes of 10th Academic Council meeting, dated: 20.08.2022 Page 2



	<p>statements.</p> <ul style="list-style-type: none"> ➤ Dr. S. Vasantharathna (CIT) and Dr. K. Umamaheswari (PSGCT) appreciated the usage of word "excellence" in the vision statement. ✓ All the council members suggested to modify the vision and mission statements of all the departments corresponding to the revised vision and mission statements of the institute. ✓ The Minutes of Board of Studies of all programmes of study were placed for approval. ✓ Presentation of curriculum and syllabi of R22 regulation approved in BoS meeting by Chairperson BoS.
	<p>B.E. Biomedical Engineering (UG) 1st and 2nd Semesters (R22)</p> <p>Dr. P. Sukumar, Head, BioMedical Engineering, presented the curriculum and syllabi. One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ PCB Design ✓ Medical Equipments Trouble Shooting & Calibration
	<p>B.E. Civil Engineering & M.E. Structural Engineering 1st and 2nd Semesters (R22) - UG 1st and 2nd Semesters (R22) - PG</p> <p>Dr. E.K. Mohanraj, Head, Civil Engineering, presented the curriculum and syllabi. One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ Building Bye Laws
	<p>B.E. Computer Science and Engineering (UG & PG) 1st and 2nd Semesters (R22) - PG</p> <p>B.E. Computer Science and Engineering (Cyber Security) - UG 1st and 2nd Semesters (R22) - UG</p> <p>B.E. Computer Science and Engineering (Internet of Things) - UG 1st and 2nd Semesters (R22) - UG</p> <p>Dr. D. Vanathi, Head, Computer Science & Engineering presented the curriculum and syllabi. One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ Microsoft Azure
	<p>B.E. Electronics and Communication Engineering (UG) and M.E. VLSI Design (PG) 1st and 2nd Semesters (R22) - UG 1st and 2nd Semesters (R22) - PG</p>



	<p>Dr. C. N. Marimuthu, Prof. & Dean, Electronics and Communication Engineering briefed the contents of curriculum and syllabi.</p> <p>One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ PCB Design ✓ Embedded System Design using PLC Microcontroller
	<p>B.E. Electrical and Electronics Engineering (EEE)</p> <p>1st and 2nd Semesters (R22) - UG</p>
	<p>Dr. G. Ramani, Head, Electrical and Electronics Engineering presented the contents of curriculum and syllabi.</p>
	<p>B.E. Mechanical Engineering (UG) & M.E. Engineering Design (PG)</p> <p>1st and 2nd Semesters (R22) - UG</p> <p>1st and 2nd Semesters (R22) - PG</p>
	<p>Dr. M. Eswaramoorthi, Head, Mechanical Engineering presented the contents of curriculum and syllabi.</p> <p>One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ Advanced Industrial Automation and Robotics ✓ Industrial Automation and Control (Scada & Hmi) ✓ Numerical Modeling of Physical Systems in the Virtual Domain using CFD
	<p>B.Tech. Agricultural Engineering</p> <p>1st and 2nd Semesters (R22) - UG</p>
	<p>Mr. K. Pradeepkumar Head, Agricultural Engineering presented the presented the contents of curriculum and syllabi.</p>
	<p>B.Tech. - Artificial Intelligence and Data Science.</p> <p>3rd and 4th Semesters (R17) - UG</p> <p>1st and 2nd Semesters (R22) - UG</p>
	<p>Mrs. M. Parvathi, Head, Artificial Intelligence and Data Science presented the curriculum and syllabi.</p> <p>One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ R for Data Science ✓ Virtual Reality ✓ Game Programming ✓ Cloud AI Platform
	<p>B.Tech. Chemical Engineering (UG)</p> <p>1st and 2nd Semesters (R22) - UG</p>
	<p>Dr. N. Subramanian, Head, Chemical Engineering presented the curriculum and syllabi.</p>
	<p>B.Tech. Information Technology (UG)</p> <p>1st and 2nd Semesters (R22) - UG</p>
	<p>Dr. C. Siva, Head, Information Technology presented the contents of</p>



	<p>curriculum and syllabi. One Credit Course: (Ratification - R17) ✓ JQuery and Bootstrap</p>
	<p>Master of Computer Applications (MCA) Program Dr. E.K. Velligiriraj, Head, Master of Computer Applications presented the contents of curriculum and syllabi.</p>
	<p>Master of Business Administration (MBA) Dr. V. Manimegalai, Head, Master of Business Administration presented the contents of curriculum and syllabi.</p>
	<p>Science & Humanities Dr. M. Vijayalakshmi, Professor, Chemistry presented the contents of curriculum and syllabi.</p>
Resolution	<p>Academic council members resolved to approve the following:</p> <ul style="list-style-type: none"> ✓ Vision and mission statements of the institute with the inclusion of their suggestions to get approval in the Governing body ✓ Minutes of 10th BoS Meeting of the programmes (Civil, CSE, ECE, EEE, Mechanical, IT, MCA, MBA and S & H) ✓ Minutes of 6th BoS Meeting of the programmes (Agri and Chemical) ✓ Minutes of 5th BoS Meeting of the programme (Biomedical) ✓ Minutes of 2nd BoS Meeting of the programme, B.Tech. Artificial Intelligence and Data Science, Computer Science and Engineering (Cyber Security) and Computer Science and Engineering (Internet of Things). ✓ Curricula and syllabi for UG and PG of respective programmes (R22) ✓ Curricula and syllabi for UG programme (R17) ✓ One credit courses of respective programmes (R17 ratified)
ITEM 10.04	<p>Approval of the new academic regulation R22 (UG and PG) Amendments in Regulation R17 (UG and PG)</p>
Discussion	<p>Principal presented the new academic regulation R22 for UG and PG programmes and highlighted the salient features of the regulation to the Academic council members. Further, he presented the amendments in regulation R17 (UG and PG). Dr. K. Ruckmani suggested to permit the students to undergo online courses only form standard forums or institutions.</p>
Resolution	<p>Resolved to approve the academic regulations R22 and amendments in regulation R17.</p>
ITEM 10.05	<p>a) Presentation of results - UG & PG programmes <ul style="list-style-type: none"> ➤ 2020-21 Even and 2021-22 Odd semester results ➤ Degree awarded (FC, FCD, Year wise, Degree wise, Program wise) b) Report of Malpractice committed by the students in internal and end semester examinations.</p>



	<p>c) R17: List of debarred and rejoined students for UG and PG programmes during 2021-22 ➤ R17: Attendance shortage below 65%</p> <p>d) Details of one credit and online courses studied during 2021-22 academic year.</p>
Discussion	<p>Dr. S. Arumugam, Professor & CoE presented the results, report of malpractice, list of debarred students, shortage of attendance and one credit and online courses studied during 2021-22 academic year.</p> <p>Further, the discussion regarding the retainment of answer scripts (as hard copies) had been done to reduce the burden of keeping the records of more scripts.</p>
Resolution	<p>The Academic council members suggested to retain the answer scripts for a minimum period of 5 years (last 3 years as hard copies and further 2 years with sample scripts or as soft copies) for UG programmes and 4 years as hard copies for PG programmes. Further, Natchimuthu advised to follow Anna University guidelines regarding the retainment of old answer scripts. If any deviation from the guidelines could be allowed only after approval from Anna University.</p>
ITEM 10.06	<p>New programme and variation in sanctioned intake (existing programmes)</p> <p>UG:</p> <ul style="list-style-type: none"> • B.E. - Computer Science and Engineering (Cyber Security) • B.E. - Computer Science and Engineering (Internet of Things) • B.E - Mechanical Engineering (variation in intake) <p>▪ PG: Structural, VLSI, ED and CSE (variation in intake)</p>
Discussion	<p>Principal informed about the new UG programmes introduced from the academic year 2021-2022 and approvals of AICTE & Anna University regarding the same. He also informed the variations in sanctioned intake of already existing programmes.</p>
Resolution	<p>Resolved to note the details of modifications in intake and new programmes.</p>
ITEM 10.07	<p>Accreditation - NBA and NAAC</p>
Discussion	<p>Principal narrated the accreditation activities and preparations related to NAAC and NBA.</p> <ul style="list-style-type: none"> ▪ NAAC: Peer team visit regarding NAAC Accreditation had been scheduled on 1st week of September, 2022. ▪ NBA applied: 2 UG Programmes - EEE and Mechanical (Committee visit schedule is yet to receive)
Resolution	<p>Members appreciated the efforts by the institution regarding the accreditation activities.</p>



ITEM 10.08	Authorize Head of the Institute to receive the funding from various funding agencies.
Discussion	Approval for authorizing Head of the Institute to receive the funding from various funding agencies as certain funding agencies require the same.
Resolution	Resolved to approve the proposal regarding research and development policy.
ITEM 10.09	Any other items: Nil
ITEM 10.10	Vote of Thanks.
	Dr. M. Muthukumar, Member Secretary proposed the vote of thanks.

Date: 20.08.2022


Principal & Chairman - Academic Council


24/8/22





NANDHA ENGINEERING COLLEGE
(Autonomous Institution)
Pitchandampalayam, Erode To Perundurai Road, Erode-638 052

ACADEMIC COUNCIL

Academic Year: 2021-22

Board	All Programmes	Meeting No.	10
Venue	BOARD ROOM	Date & Time	20 th August 2022, 10.30 am

MEMBERS ATTENDED

Sl. No.	Members	Representation	Signature
1	Dr. N. Rengarajan, Principal Nandha Engineering College (Autonomous) Erode - 638052	Chairman	
2	Dr. N. Natchimuthu, Professor and Head Department of Rubber and Plastic Technology, MIT Campus, Anna University, Chennai – 600 044 Phone: 9444981996 nmuthu@mitindia.edu	University Nominee	 20/08/22
3	Dr. K. Ramesh, Professor and Head, Department of Mechanical Engineering, Government College of Technology, Thadagam Road, Coimbatore – 641 013 Phone: 7598020676 kramesh@gct.ac.in , kasimaniramesh@gmail.com	University Nominee	 20/8/2022
4	Dr. K. Ruckmani, Professor, Department of Pharmaceutical Technology, University College of Engineering, Bharathidasan Institute of Technology Campus, Anna University, Tiruchirappalli – 620 024 Phone: 98424 84568, 7708988511 hodpharma@gmail.com	University Nominee	 20/08/22



Sl.No.	Members	Representation	Signature
5	Mr. N. Lakshminarasimhan, General Manager (Personnel & HR), Brakes India Private Ltd., Padi, Chennai – 600 050 Phone: 9786662031 lakshminarasimhan.n@brakesindia.co.in	Expert from Industry	
6	Mr. N. Meyyappan, Founder and Managing Director, Top Freshers Technologies Private Limited, Poonamallee Road, Ramapuram, Chennai – 600 089 Phone: 9840044969 meyyappan@terv.pro	Expert from Industry	
7	Dr. S. Vasantharathna, Professor and Head, Department of Electrical and Electronics Engineering, Coimbatore Institute of Technology, Coimbatore-641014 Phone: 9843044109 hodeee@cit.edu.in	Expert from Other College (Academic Expert)	 20/8/2022
8	Dr. K. Umamaheswari Professor and Head, Department of Information Technology, PSG College of Technology, Coimbatore- 641004. Phone: 9443716852 hod.it@psgtech.ac.in	Expert from Other College (Academic Expert)	 20/8/22

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NANDHA ENGINEERING COLLEGE

(Autonomous Institution)
Pitchandampalayam, Erode To Perundurai Road, Erode-638 052

ACADEMIC COUNCIL


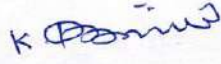





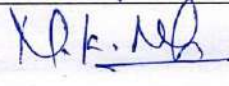
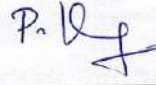



Academic Year: 2021-22

INTERNAL MEMBERS

Sl. No.	Members	Representation	Signature
1	Dr. P. Sukumar Professor & Head, Bio Medical Engineering	Head	
2	Dr.E.K. Mohanraj Professor & Head, Civil Engineering	Head	
3	Dr. S. Arumugam Professor, Computer Science and Engineering	Professor	
4	Dr. J. Senthil Professor, Computer Science and Engineering	Professor	
5	Dr. D. Vanathi, Professor & Head, Computer Science and Engineering	Head	
6	Dr. S. Prabhu, Associate Professor & Head, Computer Science and Engineering (Cyber Security)	Head	
7	Dr. E.K. Vellingiriraj Professor & Head, Computer Science and Engineering (Internet of Things) & MCA	Head	
8	Dr. C. N. Marimuthu, Professor, Electronics and Communication Engineering	Professor	
9	Dr. S. Kavitha, Professor & Head, Electronics and Communication Engineering	Head	Leave of absence
10	Dr. G. Ramani, Professor & Head, Electrical and Electronics Engineering	Head	

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11	Dr. M.Easwaramoorthi Professor & Head, Mechanical Engineering	Head	
12	Mr. K. Pradeep Kumar Professor & Head, Agriculture Engineering	Head	
13	Dr. N. Subramanian Professor & Head, Chemical Engineering	Head	
14	Dr. C. Siva Professor & Head, Information Technology	Head	
15	Ms. M.Parvathi, Assistant Professor & Head, Artificial Intelligence and Data Science	Head	
16	Dr. M. Vijayalakshmi Professor, Department of Chemistry	Professor	
17	Dr. V. Manimegalai Professor & Head, Master of Business Administration	Head	
18	Dr. M.K.Murthi, Professor, Mechanical Engineering	Teacher of the College	
19	Ms. P. Kavitha, Assistant Professor, English	Teacher of the College	
20	Mr. R. Thiruneelakkandan Assistant Professor, Physics	Teacher of the College	
21	Mr. P. Jaisankar Assistant Professor, Mathematics	Teacher of the College	
22	Dr. M. Muthukumar Professor, Mechanical Engineering	Member Secretary	

Sl. No.	Members	Representation	Signature
1	P. Ramji	Student	P. Ramji
2	R.B. Nithyasri	Student	Nithyasri R.B.
3	K.Guhan	Student	K. Guhan
4	B.Fasima Banu	Student	B. Fasima Banu

Governing Body (GB)

The function of Governing Body is to decide on the overall development of the Institute which includes infrastructure, resource allocation, welfare measures, institute scholarship, medals, prizes and certificates on the recommendations of academic council and approval of new programs for the Institute.



NANDHA ENGINEERING COLLEGE (Autonomous)
ERODE – 638 052

GOVERNING BODY MEETING

Academic Year	2020 - 21	Meeting No.	9
Venue/Mode	Online	Date & Time	29.10.2021, 11.00 A.M.

AGENDA

Item	Description	
9.01	Welcome and Introduction of Members.	
9.02	Confirmation of the minutes of the 8 th Governing Body Meeting held on 12.01.2021.	
9.03	Report on action taken on the minutes of 8 th Governing Body Meeting.	
9.04	Approval of the minutes of following Academic Council Meetings 1. Special Academic Council held on 01.04.2021. 2. 9 th Academic Council held on 06.09.2021	
9.05	Approval of the minutes of 11 th Finance committee meeting.	
9.06	Approval of faculty appointments / relieving.	
9.07	Affiliation Details	
	9.07.01	a. AICTE Extension of Approvals b. Approval of New Programme: B.Tech-Artificial Intelligence and Data Science
	9.07.02	Anna University Affiliation.
9.08	1. Honours and Achievements. 2. Accreditation: NBA - 3 Programmes	
9.09	Co-curricular Activities.	
9.10	Academic performance of students.	
9.11	Academic initiatives.	
9.12	Faculty Activities	
	9.12.01	Publications.
	9.12.02	Faculty Development - Conferences, Workshops & FDPs.
	9.12.03	Consultancy & Grant in Aid Received.
9.13	Vision and Mission	
9.14	Infrastructure development initiatives.	
9.15	Scholarship schemes.	
9.16	Any other matter.	
9.17	Vote of Thanks.	



(Signature)
Principal

Dr.N.Rengarajan, B.Sc., B.Tech., M.E., Ph.D.,
PRINCIPAL
NANDHA ENGINEERING COLLEGE
(Autonomous)
ERODE - 638 052.



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NANDHA ENGINEERING COLLEGE, ERODE – 638 052
(An Autonomous Institution, Affiliated to Anna University Chennai and
Approved by AICTE New Delhi)

Minutes of the 9th meeting of the Governing Body held on 29.10.2021

Name of the Body	Governing Body
Meeting No.	9
Date & Time	29.10.2021, 11.00 A.M
Venue	Online



NANDHA ENGINEERING COLLEGE, ERODE – 638 052

(An Autonomous Institution, Affiliated to Anna University Chennai and approved by AICTE, New Delhi)

Minutes of the Meeting (MoM)**9th Governing Body held on 29th October 2021**

The ninth meeting of the Governing Body of Nandha Engineering College was held on 29.10.2021 at 11.00 am by online. The list of members attended the meeting is enclosed in **Annexure I**.

The Governing body considered various items in the agenda and the deliberations are detailed below:

9.01	Welcome
	Dr. N. Rengarajan, Principal welcomed all the members
9.02	Confirmation of the minutes of 8 th Governing Body Meeting held on 12.01.2021
Discussion	Dr. N. Rengarajan, Principal presented the minutes of the 8 th meeting of Governing Body (GB)
Resolution	Noted the contents of 8 th GB meeting and approved the MoM
9.03	Report on action taken on the minutes of 8 th Governing Body Meeting (enclosed in Annexure –II)
Discussion	The Action Taken Report (ATR) was placed before the members. GB members appreciated the efforts taken by the Institution to implement the suggestions
Resolution	ATR of the last GB was noted and approved.
9.04	Approval of the minutes of following Academic Council Meetings 1. Special Academic Council held on 01.04.2021. 2. 9 th Academic Council held on 06.09.2021.
Discussion	Dr. N. Rengarajan, Principal presented the following salient points of the minutes of Special Academic Council and 9 th Academic Council meeting. <ul style="list-style-type: none"> • Approval of new program B.Tech., Artificial Intelligence and Data Science • Minutes of Meeting of BoS of all programs • Conduct of online/ offline classes, Continuous Assessment Test, End Semester exams as per the guidelines of Anna University released time to time.
Resolution	Members approved the minutes of Special Academic Council and 9 th Academic Council meeting.
9.05	Approval of the minutes of 11 th Finance committee meeting which was held on 29.09.2021
Discussion	Principal presented the following contents of the 11 th Finance committee meeting minutes <ul style="list-style-type: none"> • CoE Budget estimate approval for 2020-21 • Ratified Budget utilization for CoE section for year 2020-21 • 2020-21 & 2021-22 budget of Nandha Engineering College
Resolution	The GB approved the minutes of the 11 th Finance Committee meeting.
9.06	Faculty Information and Approval of faculty appointments / relieving
Discussion	➤ The lists of Faculty members appointed during 2020-21 and relieved during 2020-21 were presented by the Principal. <ul style="list-style-type: none"> • Faculty members appointed during the academic year 2020-21 : 44

Minutes of 9th GOVERNING BODY_29.10.2021

Page 2



	<ul style="list-style-type: none"> Faculty members relieved during the academic year 2020-21 : 20
Resolution	The GB members noted the faculty information and resolved to record the same.
Item 9.07	Affiliation Details and Student Admission details
9.07.01	<ul style="list-style-type: none"> a. AICTE Extension of Approvals. b. Approval of New Programme: B.Tech-Artificial Intelligence and Data Science
9.07.02	Anna University Affiliation
Discussion	<ul style="list-style-type: none"> Principal presented the Student Admission details for the Academic year 2020-21 and 2021-22. AICTE extension approvals and Anna University affiliation details of 2020-21 for all the Programmes were presented. Further, informed the validity status of CSE, ECE and MECH research centers. The members appreciated for having 3 Research centres and 31 faculty members pursuing Ph.D. Principal also informed the AICTE approval for New Programme: B.Tech-Artificial Intelligence and Data Science. Mr. Senthil Kumar Moorthy appreciated the efforts taken by the Institution activities with industries in various forms during the pandemic period. He also suggested to consider the statistics of Govt. exam cleared students and entrepreneurs to motivate the current students. Dr. J. Senthil, Professor and Director, updated the initiative to enable a portal for grouping alumni and students related to Govt. exams cleared candidates and entrepreneurs. Dr. D. Padmini, State Govt. Nominee, asked the admission status of new programme (B.Tech-Artificial Intelligence and Data Science), the credits given for Internship activities, details related to Value Added Courses, One Credit Courses, yoga classes, conduction of classes as per guidelines of Anna university during pandemic period and introduction New Academic Regulation. Principal informed that the admission of AI & DS found to be encouraging and clarified the credits given for Internship activities and One Credit Courses. He explained the conduct of yoga classes and its inclusions in timetable. Further, he told that the New Academic Regulation (R22) will be introduced in the Academic year 2022-23.
Resolution	Noted and recorded the approvals by AICTE and Anna University.
9.08	<ol style="list-style-type: none"> Honours and Achievements. Accreditation: NBA - 3 Programmes
Discussion	<p>Principal has presented the Honors and Achievements of the Institution as given below:</p> <ul style="list-style-type: none"> 5-star rating by Institution's Innovation Council (IIC) of Ministry of Education, THE WEEK <ul style="list-style-type: none"> Ranked 112th among Engineering College in ALL INDIA Ranked 85th among Private Engineering Colleges in India Ranked 57th among Top Engineering Colleges – South Zone (including Govt & Private) Ranked 50th among Top Engineering Colleges – South Zone DATAQUEST <ul style="list-style-type: none"> Ranked 65th among Top 100 T Schools in India 2021 (including Govt& Private) Ranked 53rd among Top Private T Schools in India 2021 281 Students have participated and won 11 prizes in various co-curricular events 15 Students have participated and won 5 prizes in various extra-curricular events

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	<ul style="list-style-type: none"> ➤ Secured best ISTE student award including one State level award. ➤ Nandha Engineering College had been honoured with Award of Excellence on Performance Category (2020-21) by PALS in appreciation for participation in PALS, a forum of IIT Alumni :- 480 students and 50 faculty members. ➤ MSME funding for Business Incubation (Rs. 15 lakhs) (Roll and Pull Uprooting Machine) ➤ Placement: IT sector -218 students, Core – 169 students ➤ Dr. S. Arumugam had been awarded the Fellowship Award in 53rd Annual Convention in CSI 2020 from Computer Society of India-2020. ➤ 37 students have participated in Hackathon Program ➤ 12 faculty members got certified as Innovation Ambassadors by MoE, Govt. of India to promote innovations, IPR related activities ➤ College has been allowed to be the Nodal Centre for Toyathon 20-21 ➤ NBA Accreditation: 3 Programmes (ECE, IT and CSE) had been accredited with good scores (Score: 675 above). 2 programmes (Mech and EEE) had uploaded SAR report and awaiting NBA inspections. ➤ Principal narrated the accreditation activities and preparations related to NAAC. <p>Dr. Maya Ingle appreciated the achievements and improvements in various aspects and activities of the college. Further, they congratulated the college academic members for their accreditation achievements and above efforts to ensure college positioning in NIRF ranking and other rankings.</p>
Resolution	Noted and resolved to record the achievements and accreditation activities.
9.09	Co-curricular Activities
Discussion	<p>Principal has presented the details of club activities conducted as a part of "Co-curricular and Extracurricular Activities".</p> <ul style="list-style-type: none"> ➤ Mr. Senthil Kumar Moorthi suggested to give training on Hacherrank type of tools to improve the problem solving skills of students in IT sector. Further he advised to bring the International clubs for engaging students to improve their communication standards and include story telling activities to improve communication skills. ➤ Dr. J. Senthil, Professor and Director, assured to bring International Clubs like Toastmaster Club in upcoming year.
Resolution	Recorded the details of club activities under Co-curricular and Extracurricular Activities
9.10	Academic performance of students
Discussion	Principal presented the details of eligible graduands to receive the degree during the year 2020-21. GB members appreciated the efforts taken for the conduct of exams in the pandemic period.
Resolution	Noted the results.
9.11	Academic Initiatives
Discussion	<p>Principal presented the following academic initiatives and students benefited.</p> <ul style="list-style-type: none"> • One Credit : 13 Courses • Add-On Course : 4 Courses • Course Exemption : 379 out of 736 Students • Internship / Industry Projects : 77 Students • Essence of Indian Traditional Knowledge : 674 students • Human Values : 520 students • Open Elective : 533 Students (Odd) + 265 Students (Even) • Embedded Course : 25 courses • MoUs signed: 4, Industrial visits: 2 and Faculty Industry Education: 12 • Constitution of India : 673 student



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	<ul style="list-style-type: none"> Establishment of Industry sponsored laboratories IQAC: - AQAR 2020-21 (Annual Quality Assurance Report) Social activities: COVID awareness programs, Visit to Old age home, Tree plantation, Helmet awareness program, etc. <p>➤ Principal presented the IQAC-AQAR report (2020-21) followed by the explanation of the same by Dr. J. Senthil, Director-IQAC.</p> <p>➤ Dr. Maya Ingle asked the statistics of NPTEL online courses (Faculty and Students certifications). Principal replied that 63 faculty members and 143 students have cleared the courses. He also stated that the students are permitted to earn maximum 3 credits for online courses (per course) depending on the duration of the courses.</p> <p>➤ Dr. Maya Ingle also stressed the importance of introduction and implementation of Life Skills (Jeevan Kaushal) courses like Communication, Career and Universal Human values courses as per UGC guidelines. Principal explained that the initiatives have been made to include various skills related to Life Skills in the form of Personal value courses. Further Life Skills courses and National Education Policies will be included based on the time to time directions of the regulatory bodies.</p>
Resolution	Resolved to approve the IQAC-AQAR report (2020-21) and implement the suggestion.
9.12	Faculty Activities
	R & D: Publications. Faculty Development - Conferences, Workshops & FDPs. Consultancy & Grant in Aid Received.
Discussion	Principal presented the Research policy and R & D details as given below: Details of Journal publications (115), Conferences (36), Workshops & FDPs attended (347 nos.), FDP organized (16 nos.), Consultancy work undertaken (48 nos. Rs.4,46,750 /-) and Grant-in-Aid received (AICTE-RPS: MODROB: 9.14 lakhs, AICTE-STTP: 3.5 lakhs, AICTE-Conference: 1.6 lakhs and DST-SERB funding: 0.5 lakh) during the academic year 2020-21 were presented by Principal. Also highlighted the number of patent (20) and copyright (41) filed up to the academic year 2020-21.
Resolution	Resolved to approve the Research policy and record other activities.
9.13	Vision and Mission
Discussion	Principal presented the vision and mission statements of the Institute and sought suggestions from the GB members. Members suggested to consider the revision of Mission statements.
Resolution	Resolved to consider the suggestions.
9.14	Infrastructure development initiatives
Discussion	Principal explained about the progress of New Auditorium, Diagnostic and Therapeutic lab, Industry supported Lab by Vi-Micro Systems, Virtusa Lab and establishment of Centre of Excellence with Companies (4).
Resolution	Resolved to record the activities.
9.15	Scholarship Schemes
Discussion	Principal presented the merit scholarships awarded by the management. Scholarship amounts sectioned: Rs. 2 crores Number of students benefited: 725 (under various schemes like merit scholarship, single parent scholarship, Alumni scholarship etc.)
Resolution	Noted and appreciated the support of management.



9.16	<p>Any other items :</p> <ul style="list-style-type: none"> ➤ Dr. B.V. Mudgal, University Nominee, enquired the vaccination status of the students and faculty members in the college campus. Dr. J. Senthil replied that most of the students and faculty members have got vaccinated and rest of them will be vaccinated soon. ➤ Principal presented the list of members in the Management Committee of the MSME Business Incubator. GB members approved the Management Committee. ➤ Mr. Senthil Kumar Moorthy highlighted the importance of need of women empowerment, enhancement of the technical leadership among women and maintenance of good female gender ratio in colleges. ➤ Dr. J. Senthil updated some of the initiatives to enhance students skills as follows: <ul style="list-style-type: none"> • Introduction of Hackerrank and Hackerearth have been made as a part of curriculum. • Introduction Examly portal and Pearson self learning tool to enhance students' skills. ➤ Mr. Senthil Kumar Moorthi appreciated the initiatives and efforts in implementing feedbacks and suggestions of GB members.
9.17	<p>VOTE OF THANKS</p> <p>Dr. J. Senthil expressed his sincere thanks to management members, UGC Nominee Prof. (Dr.) Maya Ingle, State Government nominee Dr. D. Padmini, Anna University nominee Dr. B.V. Mudgal, Industry nominees Mr. Senthil Kumar Moorthi, Mr. Lavanam Amballa and other members for their valuable suggestion. Also assured to take suggestions of members forward.</p>

Date: 29.10.2021





 Dr. N. Rengarajan
PRINCIPAL
 Nandha Engineering College
 (Autonomous)
 Erode - 638 052.

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NANDHA ENGINEERING COLLEGE
(Autonomous Institution)
Pitchandampalayam, Erode To Perundurai Road, Erode-638 052

GOVERNING BODY

Academic Year	2020 - 21	Meeting No.	9
Venue/Mode	Online	Date & Time	29 th October 2021, 11.00 AM

MEMBERS ATTENDED

Sl.No.	Members	Representation	Signature
1	Thiru. V. Shanmugan, B.Com Chairman, Sri Nandha Educational Trust	Management	V. Shanmugan
2	Mrs. S. Banumathi, Member, Sri Nandha Educational Trust	Management	S. Banumathi
3	Thiru. S. NandhaKumar Pradeep M.B.A, Secretary, Sri Nandha Educational Trust	Management	Online Mode
4	Thiru. S. Thirumoorthy B.P.T., Secretary, Nandha Educational Institutions	Management	Online Mode
5	Dr. S.P. Viswanathan, Advisor, Nandha Educational Institutions	Management	S.P. Viswanathan 29/10/2021
6	Dr. S. Arumugam, Chief Executive Officer, Nandha Educational Institutions	Management	S. Arumugam 29/10/21
7	Dr. J. Senthil, Professor & Director, Department of Computer Science and Engineering, Nandha Engineering College, Erode	Management	J. Senthil 29/10/2021
8	Dr. E. K. Mohanraj, Professor & Dean, Department of Civil Engineering, Nandha Engineering College, Erode	Faculty Nominated by Principal	E. K. Mohanraj 29/10/2021
9	Prof. K. Gunasekar, Professor & Head, Department of Computer Science and Engineering, Nandha Engineering College, Erode	Faculty Nominated by Principal	K. Gunasekar





NANDHA ENGINEERING COLLEGE
(Autonomous Institution)
Pitchandampalayam, Erode To Perundurai Road, Erode-638 052

GOVERNING BODY

10	Mr. Lavanam Amballa, National Campus manager Global Campus Hiring Team, Talent Acquisition, Wipro Limited, Bangalore	Industry Nominee	Leave of absence
11	Mr. Zarook Shah, Director, Grand Square Mall, Velachery, Chennai	Industry Nominee	Online
12	Mr. Senthil Kumar Moorthi, Manager, Engineering Programs, PayPal, Chennai	Industry Nominee	Online
13	Prof. (Dr.) Maya Ingle, School of Computer Science, Information Technology, Devi Ahilya Vishwavidyalaya Indore - 452 001	UGC Nominee	Online
14	Dr. D. Padmini, Professor (CAS) & Head, Department of Civil Engineering, Government College of Technology, Coimbatore.	State Government Nominee	Online
15	Dr. B.V. Mudgal, Professor, Centre for Water Resources, Department of Civil Engineering CEG Campus, Anna University, Chennai 600 025	University Nominee	Online
16	Dr. N. Rengarajan, Principal, Nandha Engineering College, Erode	Ex-officio Member	N. Rengarajan

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Finance Committee

The objective of the Finance Committee is to ensure proper utilization of fund. The Finance Committee shall act as an advisory body to the Governing Body, to consider:

- Budget estimates relating to the grant received/receivable from UGC, and income from fees, etc. collected for the activities to undertake the scheme of autonomy; and audited accounts for the above.
- To recommend fixation/revision of fees and other charges payable by the students to the College Governing Council.
- See that expenses incurred have budgetary provision recommend for approval financial proposals made by other committees with or without modification
- Check that necessary formalities have been observed in incurring expenses
- Check process bills placed for payment
- Enhance the claims related to academic activities like valuation of paper, question paper setting, etc.





NANDHA ENGINEERING COLLEGE
(Autonomous), Erode-638052

CIRCULAR

Date: 22.09.2022

NEC/Cir/2022-2023/62

Classification	ROUTINE	IMMEDIATE
Academic	Originator: Chairman, Finance Committee	Circulated to: Finance Committee members

Sub.: 12th Finance Committee meeting – reg.

The 12th meeting of finance committee is scheduled on 27.09.2022 at 11.45 AM in the Board room ,Nandha Engineering College, Erode. Hence, all the committee members are requested to attend the meeting as per schedule.


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NANDHA ENGINEERING COLLEGE

(Autonomous)
Erode – 638 052

FINANCE COMMITTEE MEETING

Academic Year	2022-2023	Meeting No.	12
Venue	Board room	Date and Time	27.09.2022 11.45AM

AGENDA

ITEM	DETAILS
12.1	Welcome by the Chairman of Finance Committee
12.2	Approval of the minutes of the 11 th finance committee meeting held on 29.9.2021.
12.3	Ratification of Budget utilization for COE section for the year 2021-22(Odd Semester).
12.4	Approval of Budget estimate for COE section for the year 2021-2022(Even semester)
12.5	Revision of remuneration in certain categories in COE.
12.6	Fixation of Condonation Fee (65% and above and below 75% attendance)
12.7	Approval of remuneration fixation of DAB meeting (Department Advisory Board) twice in a year .
12.8	Approval of Proposed Budget for Nandha Engineering College for the Year 2022-23
12.9	Any other item.

FINANCE COMMITTEE CHARIMAN





NANDHA ENGINEERING COLLEGE (Autonomous)


MINUTES OF THE FINANCE COMMITTEE

The tenth meeting of the Finance Committee was held as given bellow:

Academic Year	2019-2020	Meeting No.	10
Venue	Online mode	Date and Time	10th Sep 2020 11.00 AM
List of Members Attended	The list of members attended with signature is given in the Annexure - I		

The Principal welcomed the members of Finance Committee.
The Committee considered the items given in the agenda and deliberations are given bellow.

ITEM	DETAILS
10.1	Ratification of Budget Utilization for the year 2018-2019.
Details	The committee reviewed the audit statement for the year 2018-2019. The details are given in Annexure - II.
10.2	Approval of Budget estimate for COE section for the year 2019-2020.
Details	The committee reviewed the Budget proposal for CoE for the year 2019-2020 and approved.
10.3	Ratification of Budget Utilization for CoE for the year 2019-2020.(Even Semester)
Details	The committee reviewed the Budget utilization of CoE for Even Semester 2019-20. The details are given in Annexure - III.
10.4	Any other item.
Details	Nil


CFO

(Mr.A.SIVAPRAKASAM)




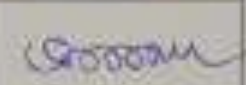


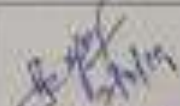


FINANCE COMMITTEE - CHAIRMAN

(Dr.N.RENGARAJAN)



Annexure - I

List of Members attended the Ninth Finance Committee Meeting.

Sl. No.	Name & Designation	Category	Signature
1.	Dr. N. Rengarajan, Principal, Nandha Engineering College.	Finance Committee – Chairman	
2.	Dr. A.K. Shiek Manzoor, Associate Professor, Department of Management studies, Anna University-04	University Nominee	
3.	Thiru A. Sivaprakasam, Chief Financial Officer, Nandha Educational Institutions.	Nominee of the Governing Body	
4.	Dr. K. Sadagoban, Chief Librarian, Nandha Engineering College.	Senior-most Faculty nominated by Principal	
5.	Mr. S. Nandhakumar Pradeep, Secretary, Sri Nandha Educational Institutions.	Co-opted Member	
6.	Mr. S. Thirumoorthi Secretary, Nandha Educational Institutions.	Co-opted Member	
7.	Dr. P. Thirumoorthy DCOE, Nandha Engineering College.	Co-opted Member	
8.	Mr. A.K. Velusamy, Administrative Officer, Nandha Engineering College.	Co-opted Member	

Process of Gap Identification in the Curriculum and Syllabus

Curriculum gap analysis is a process of reviewing and evaluating the content of a curriculum against the actual skills and knowledge that students are expected to have at the end of their learning. Initially, the syllabus sub-committee is formed to prepare draft syllabus and curriculum based on the stake holders inputs. Further, the syllabi are sent to academic and industry experts for review. The experts suggest new courses/ titles as gaps in the existing/ proposed curriculum after comparing with the previous curriculum and syllabus. The process of gap identification is presented in the flow chart below.

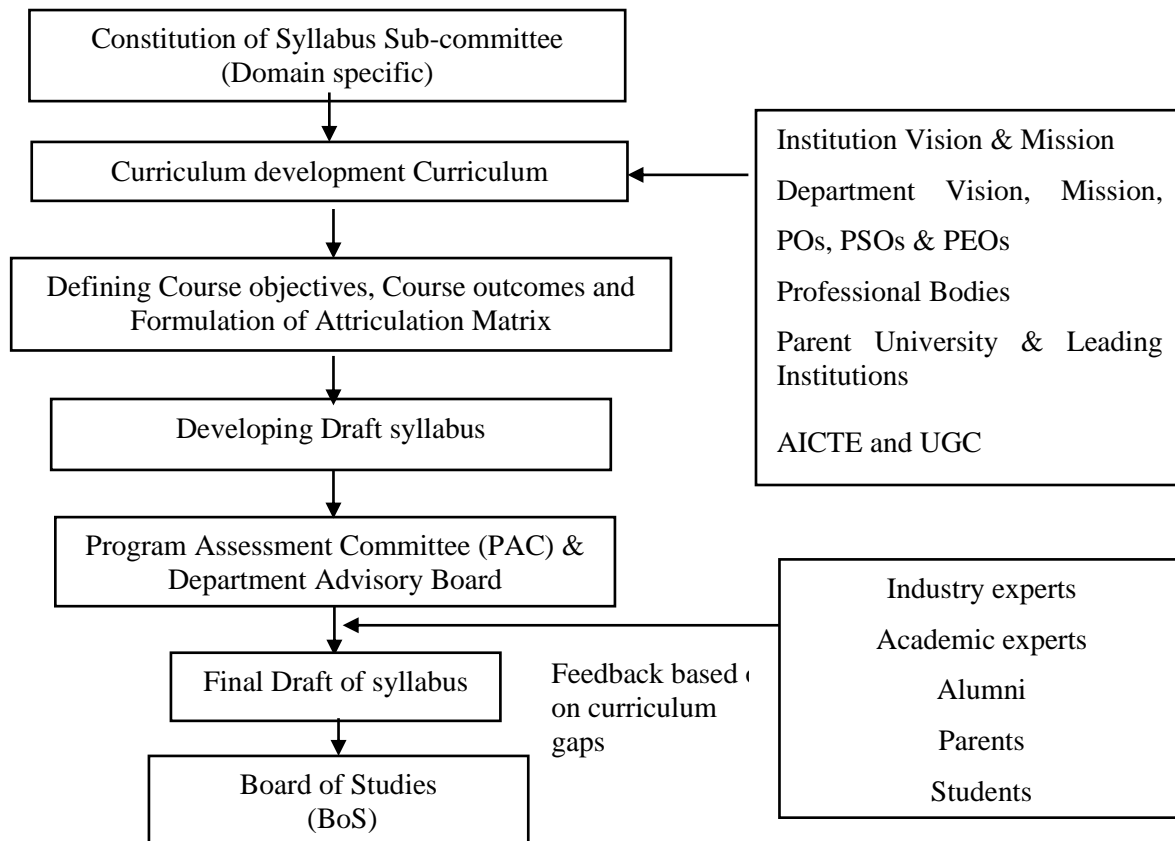


Figure 2.1.1a Process of Gap identification in Curriculum



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New courses/ titles introduced as suggested by Experts

The following new courses such as Engineering Failure Analysis, New Product Development, Solar Thermal Systems, Process Planning and Cost Estimation, Surface Engineering, Renewable Sources of Energy, Operations Research, Entrepreneurship Development, Artificial Intelligence and Neuro-Fuzzy Theory, Engineering Ergonomics, Energy audit and Resource Management have been introduced as suggested by experts. Further, the one credit course named Geometric Dimensioning & Tolerancing, Automation and Robotics were introduced as suggested by Alumni students.

Resolution	Resolved to approve the curriculum & syllabi of 5 th to 8 th semesters under Regulation R17 (CBCS) for the batch of students admitted in B.E., Mechanical Engineering programme	
Item – 7.06	Chairman BoS has presented the curricular gaps suggested by the industry and academic experts. (a) New Product Development, (b) Solar Thermal Systems, (c) Renewable Sources of Energy, (d) Entrepreneurship Development, (e) Artificial Intelligence and Neuro-Fuzzy Theory. To review and approve the syllabi of Professional Specific Electives (PSE) under Regulation R17 (CBCS) for the batch of students admitted in B.E., Mechanical Engineering programme from the year 2017 - 18 onwards	
Discussion	Programme Specific Electives:	
	Course-1: Tribology Dr.M.Nataraj (GCT) suggested to	
	<ul style="list-style-type: none"> Modify Unit-I title as Surface Topography Modify the contents of Unit 5 	<ul style="list-style-type: none"> ✓ Modified and Updated ✓ Modified and Updated
	Course-2: Design for Manufacture and Assembly No comments	
	Course-3: Fuels and Combustion Dr.R.B.Anand (NIT Trichy) suggested to include a book on "An Introduction to Combustion: Concepts and Applications" by Stephen Turns in Reference books	✓ Included
Course-4: Internal Combustion Engine Dr.R.B.Anand (NIT Trichy) suggested to		
<ul style="list-style-type: none"> Modify the title of Unit-IV to Study of Fuels and modify the contents accordingly Include a book on "Internal Combustion Engines" by Mathur and Sharma in Text books 	<ul style="list-style-type: none"> ✓ Modified and Updated ✓ Modified 	



Item – 8.04	Consideration for credits earned either through Online / one credit courses or combination of both.	
Discussion	Dr. Anand NIT has suggested fixing minimum number of online courses to be studied by a student. Dr. Nataraj (GCT) expressed his views on the online course and recalled the AICTE's recent directives to permit students to earn credits through online courses to the extent of 20% per semester. Dr. M. Easwaramoorthi, Chairperson of BoS has put forth the current status of students studied courses online and existing provision in the regulation for course exemption for the students who have successfully completing online courses. Since more students are already studying online course, it was decided not to fix minimum number of courses to study and motivate students to study more online courses.	
Resolution	Resolved to approve the decision	
Item – 8.05	Chairman BoS has presented the curricular gaps (following courses) suggested by the industry and academic experts. To review and approve the syllabi of New Programme Specific Electives (PSE) under Regulation R17 (CBCS) for the batch of students admitted in B.E., Mechanical Engineering programme from the year 2017 - 18 onwards	
	<ol style="list-style-type: none"> 1. Industrial Internet of Things (Ratification) 2. 3D Printing Technology 3. Fuel Cells and Applications 4. Geometric Dimensioning and Tolerancing 5. BioMechanics (BioMedical Engg program) 	
Discussion	Programme Specific Electives:	
	Course-1: Industrial Internet of Things (Ratification) Dr. R. B. Anand (NIT Trichy) suggested to rename Unit-I title	✓ Modified as Concepts of Electrical and Electronics for IOT
	Course-2: 3D Printing Technology • Dr. R. B. Anand (NIT Trichy) suggested to combine Unit-I and Unit-II contents • Dr. M. Elangovan (SNS college) advised to add the contents related to 3D printing applications in Medical, Dental field and Design for Additive Manufacturing. • Dr. M. Nataraj (GCET) suggested to include tutorials in Unit-V	✓ Combined ✓ Included ✓ Included
	Course-3: Fuel Cells and Applications Dr. R. B Anand (NIT Trichy) suggested to update the text books and reference books	Modified and Updated
	Course-4: Geometric Dimensioning and Tolerancing Dr. M. Nataraj (GCET) suggested to rename the title Fundamentals of Geometric Dimensioning, Tolerancing and Drawing Standards as Geometric Dimensioning and Tolerancing. Dr. M. Elangovan (SNS college) suggested to add the basics contents of selective assembly, cumulative assembly and their	✓ Modified and Updated ✓ Included in Unit-V



Process of Curriculum Improvement

The process of curriculum improvement is also follows the same steps described in Figure B.2.1.1a. The various committees involved in the curriculum development ensures that the curriculum developed covers components for employability, research, topics in emerging trends, social relevance and needs.

Involvement of stakeholders results in

- Updating of curriculum and syllabi
- Industry project's and Internship programs
- Modifications in academic policy to cater to the needs of real-world requirement through different assessment methods like Online test, Quiz, Assignments, Continuous assessment tests

The following courses are included as per the gaps identified during the evaluation of POs, PSOs, PEOs and suggestions given by the stakeholders:

- Professional core courses in Embedded mode
- Industry based one credit courses
- Comprehensive Examination
- Professional and Open Electives
- Human Excellence and Professional Value Courses
- Mandatory Non-credit courses on Constitution of India and Essence of Indian Traditional Knowledge.

The curriculum and syllabus has been revised every year to meet the evolutionary requirements in the industry, engineering and other business sectors. Few of the important areas considered for improvement of the curriculum is presented below:

Employability

Employability is ensured through multi-skilling of the students. To develop multi-skills, the curriculum includes the following provisions:

- Professional core papers
- Professional Electives
- Industry Expected curriculum
- Establishment of laboratories in collaboration with Industry for state of the art learning



- Interdisciplinary electives (open electives)
- Interdisciplinary laboratories
- Presentation of Technical papers
- Introduction of Industrial training
- Internships are encouraged during seventh and eighth semester
- Different assignments patterns and mini projects
- Language laboratory
- Language electives (Hindi, Japanese and German)

Innovation

In the curriculum design and development process, the following innovative practices are considered for inclusions.

- Value added courses / Training to the students
- Exclusive Center for innovation and Product Development (CiPD) to encourage interdisciplinary projects
- Addition of innovative experiments in the laboratory to improve problem solving abilities
- Inter disciplinary electives
- Flexibility to choose subjects through open electives, self-study courses, and special electives further enhancing the analytical ability, innovative thinking and creativity.

Research

- The curriculum design and development help the students and faculty to focus towards research through the following aspects:
- The students and members of faculty are motivated to submit research proposals to various funding agencies
- The curriculum is developed considering the needs that exist at the regional and national levels to promote global competencies, environmental, ethical and social issues through soft skills, language development and recent technical developments. Examples of some courses added in the curriculum to meet the above requirements are given below:
 - Environmental Science
 - Soft Skills - Listening and Speaking
 - Fuel Cells and Applications
 - 3D Printing Technology



2.1.2 Structure of the Curriculum (5)

Self Assessment (5)

Table B.2.1.2c Structure of the Curriculum – Regulation 2017

Course Code	Course Title	Total Number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
17EYA01	Professional English - I	2	0	2	4	3
17MYB01	Calculus and Solid Geometry	3	2	0	5	4
17PYB01	Physics for Engineers	3	0	0	3	3
17CYB01	Applied Chemistry	3	0	0	3	3
17MEC01	Engineering Graphics	2	2	0	4	3
17ECC02	Basic Electrical, Electronics and Instrumentation Engineering	3	0	0	3	3
17GYP01	Physics and Chemistry Laboratory	0	0	4	4	2
17GYP02	Engineering Practices Laboratory	0	0	4	4	2
17GEP01	Personal Values	0	0	2	2	0
17EYA02	Professional English - II	2	0	2	4	3
17MYB02	Complex Analysis and Laplace Transform	3	2	0	5	4
17PYB03	Materials Physics	3	0	0	3	3
17CYB03	Environmental Science	3	0	0	3	3
17MEC02	Engineering Mechanics	3	2	0	5	4
17CSC01	Problem Solving and Python Programming	3	0	0	3	3
17MEP02	Computer Aided Modeling and Drafting Laboratory	0	0	4	4	2
17CSP01	Problem Solving and Python Programming Laboratory	0	0	4	4	2
17GEP02	Interpersonal Values	0	0	2	2	0
17MYB03	Fourier Series and Partial Differential Equations	2	2	0	4	3



17MEC03	Materials Engineering and Technology	3	0	0	3	3
17MEC04	Engineering Thermodynamics	2	2	0	4	3
17MEC05	Fluid Mechanics and Machinery(Theory+ Lab)	3	0	2	5	4
17MEC06	Manufacturing Processes	3	0	0	3	3
17MEP03	Manufacturing Processes Laboratory	0	0	4	4	2
17MEP04	Computer Aided Machine Drawing	0	0	4	4	2
17GED01	Soft Skills-Listening and Speaking	0	0	2	2	0
17MYB06	Statistics and Numerical Methods	2	2	0	4	3
17MEC08	Kinematics of Machinery(Theory+ Lab)	3	0	2	5	4
17MEC09	Thermal Engineering Systems	2	2	0	4	3
17MEC10	Subtractive Manufacturing Processes	3	0	0	3	3
17MEC11	Strength of Materials(Theory+ Lab)	3	0	2	5	4
E-1	Elective-I (PSE)	3	0	0	3	3
17MEP05	Thermal Engineering Systems Laboratory	0	0	4	4	2
17MEP06	Subtractive Manufacturing Processes Laboratory	0	0	4	4	2
17GED02	Soft Skills-Reading and Writing	0	0	2	2	0
17GED03	Personality and Character Development	0	0	1	1	0
17MEC13	Design of Machine Elements	2	2	0	4	3
17MEC14	Heat and Mass Transfer(Theory+ Lab)	3	0	2	5	4
17MEC15	Dynamics of Machinery	2	2	0	4	3
17MEC16	Fluid Power Systems	3	0	0	3	3
E-2	Elective-II (PSE)	3	0	0	3	3



E-3	Elective-III (PSE)	3	0	0	3	3
17MEP08	Dynamics of Machinery Laboratory	0	0	4	4	2
17GED07	Constitution of India	2	0	0	2	0
17MEC17	Mechatronics	3	0	0	3	3
17MEC18	Design of Transmission Systems	2	2	0	4	3
17MEC19	Metrology and Measurements(Theory+Lab)	3	0	2	5	4
E-4	Elective-IV(PSE/ OE)	3	0	0	3	3
E-5	Elective-V(PSE)	3	0	0	3	3
17MEP09	Mechatronics Laboratory	0	0	4	4	2
17GED06	Comprehension	0	0	2	2	0
17GED08	Essence of Indian Traditional Knowledge	2	0	0	2	0
17MEC20	CAD / CAM/CIM	3	0	0	3	3
17MEC21	Finite Element Analysis	2	2	0	4	3
17MEC22	Power Plant Technology	3	0	0	3	3
E-6	Elective-VI (PSE/OE)	3	0	0	3	3
E-7	Elective-VII (OE)	3	0	0	3	3
17MEP10	CAD/ CAM Laboratory	0	0	4	4	2
17MEP11	Computer Aided Analysis Laboratory	0	0	4	4	2
17MED01	Project Work– I	0	0	8	8	4
E-8	Elective- VIII(PSE)	3	0	0	3	3
E-9	Elective-IX(OE)	3	0	0	3	3
17MED02	Project Work-II	0	0	16	16	8
Total		116	24	95	235	167



The curriculum is designed as per AICTE guidelines and the balancing is ensured by giving importance to the various components such as Humanities and social sciences, Engineering sciences, Basic sciences, Program core, Program specific electives, open electives, Projects, employability enhancement courses and mandatory courses. Further, the appropriateness of curriculum is ensured by defining course outcomes, mapping with POs (as defined by NBA) and PSOs.

2.1.3 State the components of the curriculum (5)

Self Assessment (5)

Program curriculum grouping based on course components

The components of the curriculum formulated as per the AICTE guidelines are presented below in the Table B.2.1.3.

Regulation 2017

Table B.2.1.3a Regulation 2017

Course Component	Curriculum Content (% of total number of credits of the program)	Total number of contact hours	Total number of credits
Basic Sciences	16.76	36	28
Engineering Sciences	19.16	44	32
Humanities and Social Sciences	3.59	12	6
Program Core	37.12	85	62
Program Specific Electives	10.77	18	18
Open Electives	5.38	9	9
Project(s)	7.18	24	12
Mandatory Courses	0	11	0
Total number of Credits			167



2.1.3 State the components of the curriculum(5)

Program curriculum grouping based on course components

The components of the curriculum formulated as per the AICTE guidelines are presented below in the Table B.2.1.3.

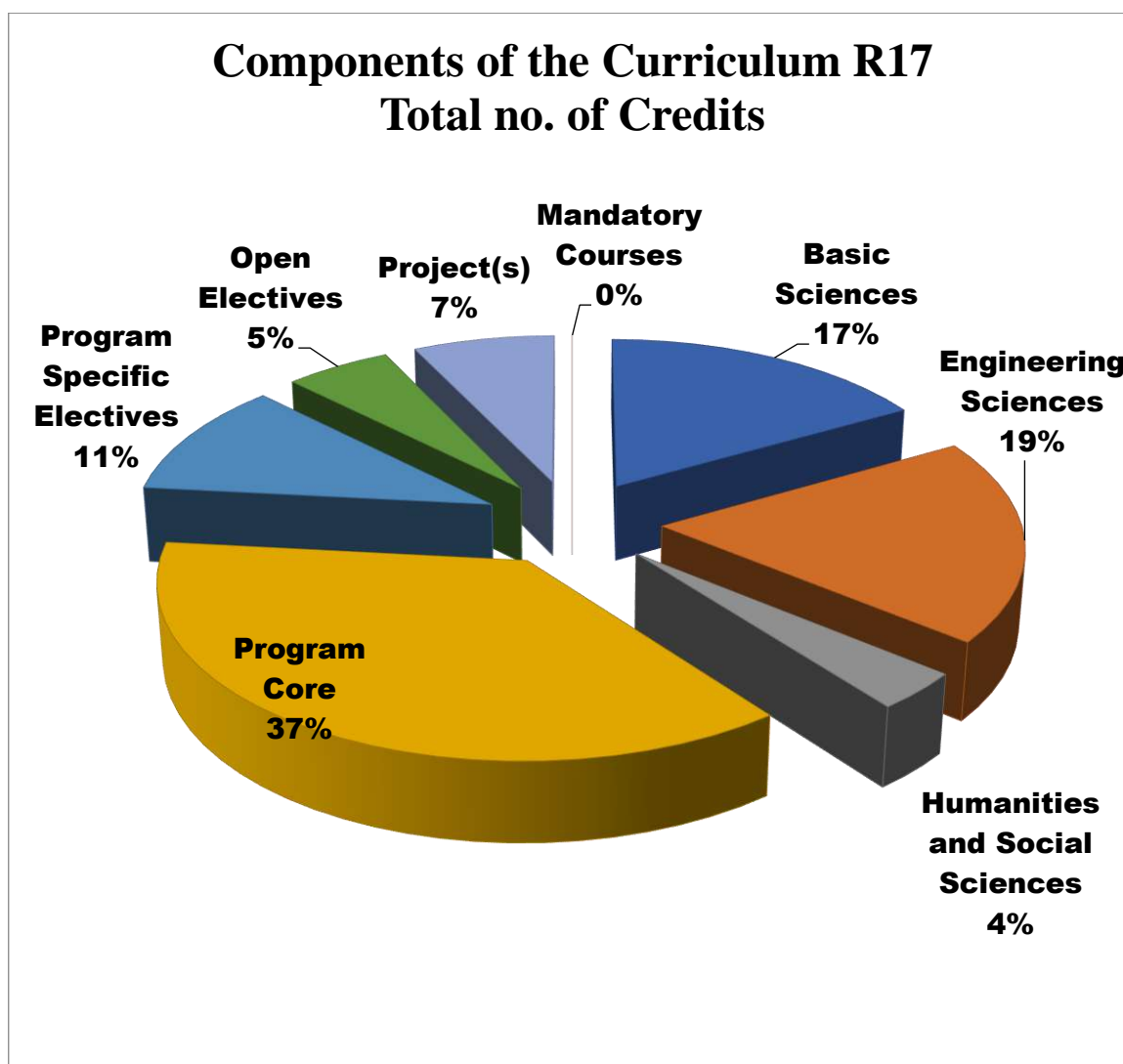


Figure B.2.1.3a Regulation 2017

The curriculum is designed as per AICTE guidelines considering the components as Humanities and social sciences, Engineering sciences, Basic sciences, Program core, Program specific electives, open electives, Projects and mandatory courses to provide a well-balanced curriculum.



2.1.4 State the process used to identify extent of compliance of the curriculum for attaining the Program Outcomes and Program Specific Outcomes as mentioned in Annexure I (10)

Self Assessment (10)

The process adopted to identify the extent of compliance of curriculum attainment with respect to POs and PSOs is presented below:

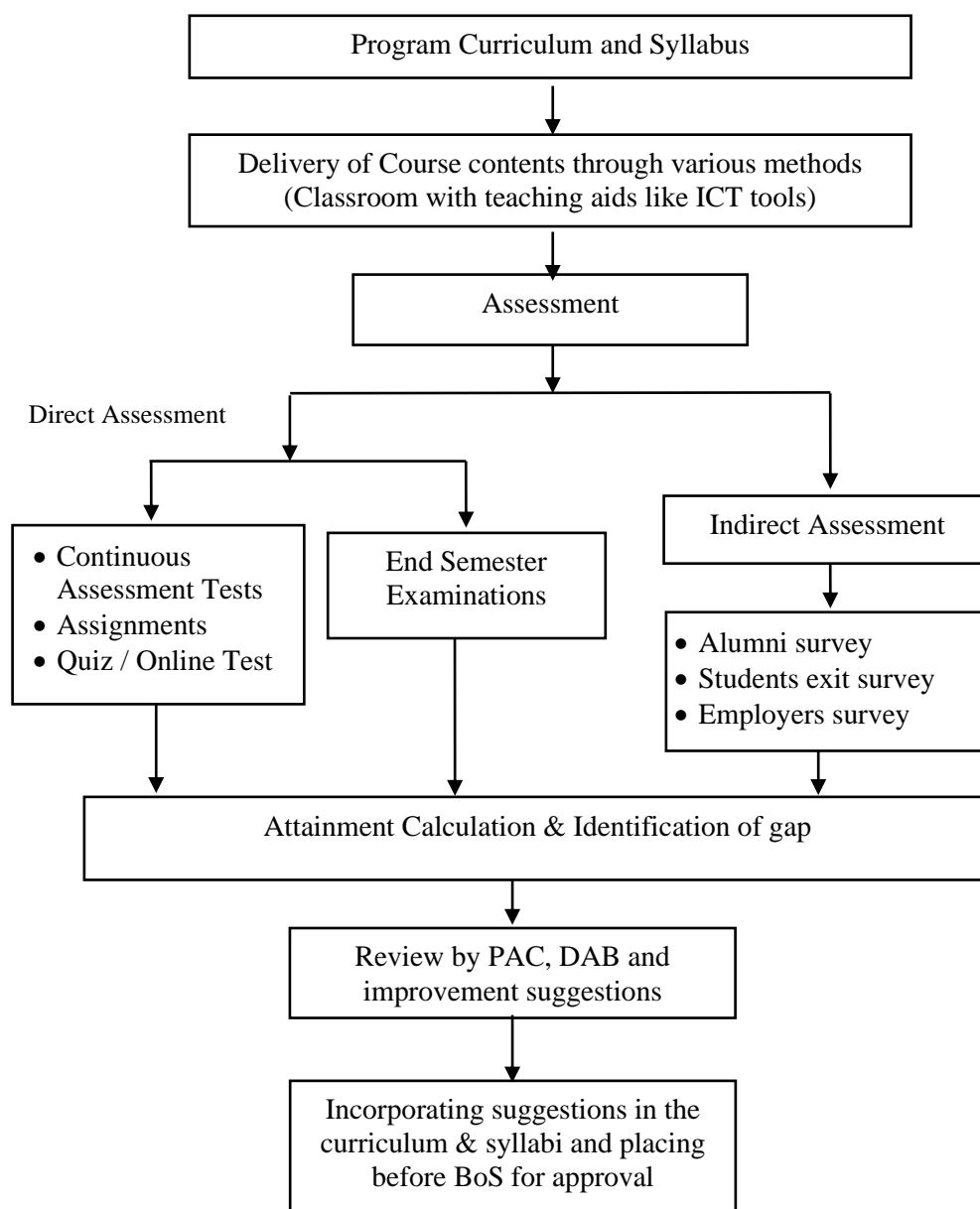


Figure B.2.1.4a Process for Attaining PO and PSOs



- As presented in Figure B.2.1.4a, the process adopted to identify the extent of compliance of curriculum attainment with respect to POs and PSOs is described below:
 - i. Direct assessment is done by processes of analyzing performance of students by
 - ✓ Continuous Assessment Test
 - ✓ Assignments
 - ✓ Online Test
 - ✓ End Semester Examinations
 - ii. Indirect assessment is done by conducting
 - ✓ Course end survey
 - ✓ Student exit survey
 - ✓ Alumni survey
 - ✓ Employer survey

The outcome of the above process is analyzed and inputs are taken for improving the content of curriculum and syllabi, besides the suggestions of course coordinators who periodically monitor the attainment levels of COs, POs and PSOs and supplement the suggestions.

Following Table B.2.1.4b shows some of the course which exhibits correlation between the courses and the POs & PSOs. The correlation levels 1, 2 or 3 are defined as 1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High).

Table B.2.1.4b Sample of Courses to indicate CO/ PO Mapping

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
17MEC05	Fluid Mechanics and Machinery	3	2	3	-	3	-	3	2	1	1	3	2	3	3	-	-
17MEC06	Manufacturing Processes	2	2	1	-	2	1	-	1	-	1	2	3	3	3	1	1



17MEC09	Thermal Engineering Systems	3	3	-	-	3	3	3	1	1	1	2	2	3	3	2	1
17MEC14	Heat and Mass Transfer (Theory + Lab)	2	1	2	1	2	1	-	1	-	1	2	2	3	2	1	1
17MEX16	Fluid Power Systems	2	2	1	1	2	-	-	1	1	1	1	1	2	1	1	-
17MEX04	Product Design	3	2	-	-	-	1	2	-	-	2	2	2	2	2	1	1
17MEC13	Design of Machine Elements	3	2	2	3	3	2	-	-	-	-	3	2	3	1	2	1

For example, PO5 for the course 17MEC13 was fixed as 3 in the articulation matrix; the attainment target was fixed as 70% (i.e $3 \times 0.75 = 2.10$). The attainment level of PO5 is 3 and inferred that the attainment level is Substantial. Salient features included in the regulations R17 to improve the POs and PSOs attainment level are listed below.

- i. Embedded Courses-learning through theory, embedded with laboratory experiments (theory and practical simultaneously).
- ii. Seminars/ guest lectures to acquire technical knowledge, soft skills and personality development.
- iii. Summer internships and in-plant training to learn industrial practices and to enhance the employability.
- iv. Flexibility to choose subjects through open electives, self-study electives, one-credit courses and special electives further to enhance analytical ability, innovative thinking and creativity.
- v. Life skills related courses as an integral part of curriculum.
- vi. Choice Based Credit System (CBCS) was extended to regulation R15 through subsequent amendments.



The major continuous improvements in the Regulations are shown in the following figure and Table B.2.1.4c.

The proceedings of PAC started and the minutes of the meeting are recorded as follows:

Item 1.01	Welcome and introduction of members																								
	Dr. M. Easwaramoorthi, Chairman PAC introduced and welcomed the members followed by a brief note on functioning of PAC																								
Item 1.02	Review of the previous PAC Meeting minutes.																								
Discussion	PAC Chairman presented the previous PAC meeting minutes (date) and action taken report.																								
Resolution	Resolved to approve the PAC Meeting minutes																								
Item 1.03	Pitfalls and difficulties in the existing curriculum																								
Discussion	<ul style="list-style-type: none"> ▪ Members suggested including programming courses after 2nd semester for the benefit of lateral entry students. ▪ Placement coordinators opined to provide credits to the students those who are undergoing industry related placement training. ▪ Members suggested to modify the Engineering Graphics syllabus by incorporating laboratory practice ▪ Dr. MEM stressed the need for adding electronics courses to Mechanical Engineering students and suggested to have electrical and electronics as two separate courses. ▪ Members suggested to consider the actual credits earned through online courses while giving exemption of courses. 																								
Resolution	Resolved to consider the suggestions of members in the upcoming curriculum																								
Item 1.04	Ratification of courses - R17 curriculum																								
Discussion	PG coordinator requested to ratify the following courses which were offered to PhD scholars as a part of their course work in the next BoS. 17EDX29 - Design of Biomass Conversion Technology 17EDX30 - Welding Metallurgy 17EDX31 - Materials Characterization																								
Resolution	Resolved to place the syllabus of the above courses in 10 th BoS.																								
Item 1.05	Revision of Department Vision, Mission, PEOs and PSOs																								
Discussion	PAC reviewed the Vision, Mission statements of the department and PSO, and suggestions given by the experts at various occasions. It was decided to make changes and place before DAB and BoS for approval.																								
Resolution	Resolved to approve the decisions and place the same in the next DAB and BOS.																								
Item 1.06	New Regulation (R22) and Curriculum																								
Discussion	<ul style="list-style-type: none"> ▪ PAC Chairman explained the need for new regulation (R22) and guidelines for framing curriculum based on AICTE model curriculum. ▪ BoS coordinator suggested including certification courses as non-credit mandatory courses in the curriculum. He also explained the benefit of identifying important certification courses which would provide skills required to get placement. ▪ PAC members suggested making provision in the next regulation for considering the full credits earned by the students while giving course exemption in lieu of online courses. 																								
Resolution	Resolved to include the above suggestion and place before DAB and BOS meeting.																								
Item 1.07	Department activity plan for the academic year 2022 – 2023.																								
	Students Association incharge presented the activity action plan as listed below.																								
	<table border="1"> <thead> <tr> <th>S. No.</th> <th>Activity</th> <th>Month</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>SOME Association inaugural</td> <td>3rd week of August 2022</td> </tr> <tr> <td>2.</td> <td>Academic seminar-1</td> <td>4th week of August 2022</td> </tr> <tr> <td>3.</td> <td>Industrial seminar-1</td> <td>4th week of September 2022</td> </tr> <tr> <td>4.</td> <td>Workshop-1</td> <td>3rd week of October 2022</td> </tr> <tr> <td>5.</td> <td>Inter-department meet</td> <td>1st week of November 2022</td> </tr> <tr> <td>6.</td> <td>Intra-department meet</td> <td>1st week of January 2023</td> </tr> <tr> <td>7.</td> <td>Symposium & Workshops</td> <td>3rd week of February 2023</td> </tr> </tbody> </table>	S. No.	Activity	Month	1.	SOME Association inaugural	3 rd week of August 2022	2.	Academic seminar-1	4 th week of August 2022	3.	Industrial seminar-1	4 th week of September 2022	4.	Workshop-1	3 rd week of October 2022	5.	Inter-department meet	1 st week of November 2022	6.	Intra-department meet	1 st week of January 2023	7.	Symposium & Workshops	3 rd week of February 2023
S. No.	Activity	Month																							
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7.	Symposium & Workshops	3 rd week of February 2023																							

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	8.	Academic seminar-2	2 nd week of March 2023		
	9.	Industrial seminar-2	1 st week of April 2023		
Resolution	Resolved to approve the list of activities.				
Item 1.08	Result Analysis and Attainment of the CO, PO and PSO.				
Discussion	Exam cell coordinator presented the end semester results for year 2021-22 (Odd & Even) Academic coordinators of Batch 2015-2019, Batch 2016-2020 and Batch 2016-2021 presented the PO & PSO target and attainment. The PO attainment of PO-8, PO-9 & PO-10 was found to be below the target. PAC members were informed to analyze the reasons and take remedial measures to improve the attainment of POs.				
Resolution	Resolved to record the performance.				
Item 1.09	Discussion on budget utilization (2021-22) and budget requirements for 2022-23				
Discussion	Budget coordinator presented the budget utilization details of year 2021-22 and 2022-23 budget requirements.				
	Year	Budget proposed	Budget approved	Utilization	Remarks
	2021-22	1844275	1565270	1086921	
	2022-23	2728499	2728499	-	
Resolution	Resolved to record the budget details				
Item 1.10	Annual Report – 2021-22.				
Discussion	Department coordinator (monthly reports) presented the annual report of year 2021-22. Chairman- PAC opined that paper publications, project funding and faculty industrial training found to be improved. He requested faculty members to concentrate on the above areas.				
Resolution	Resolved to record the annual report.				
Item 1.11	Any other matter				
	Alumni coordinator has suggested the following points <ul style="list-style-type: none"> ▪ Motivate passed out students to register in the Alumni portal. ▪ Entry of Alumni salary packages details in the Alumni portal. Placement coordinator has suggested motivating students to register online courses to earn credits and trying to get exemption course in the final year so as have sufficient time for placement training/internship/preparing for higher studies.				

Date: 17-6-2022

CHAIRMAN
PAC- MECH

HEAD OF THE DEPARTMENT
DEPARTMENT OF MECHANICAL ENGINEERING
NANDHA ENGINEERING COLLEGE
ERODU - 638 657

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The proceedings of DAB started and the minutes of the meeting are recorded as follows:

Item 1.01	Welcome note and introduction of members												
	Dr. M. Easwaramoorthi, Chairman DAB introduced the members and welcomed all followed by a brief note on functioning of DAB												
Item 1.02	Review of the previous PAC meeting minutes (held on 17.06.2022)												
Discussion	DAB Chairman presented the previous PAC meeting minutes and action taken report.												
Resolution	Resolved to approve the PAC minutes of meeting .												
Item 1.03	Pitfalls and difficulties in the existing curriculum												
Discussion	<p>Dr. MEM presented the pitfalls and difficulties in the existing curriculum based on the discussions in the PAC meeting.</p> <ul style="list-style-type: none"> ▪ Including programing courses after 2nd semester for the benefit of lateral entry students. ▪ Opinion of Placement coordinators to provide credits to the students those who are undergoing industry related placement training. ▪ Modification of Engineering Graphics syllabus by incorporating laboratory practice ▪ Need for adding electronics courses to Mechanical Engineering students and suggested to have electrical and electronics as two separate courses. ▪ Suggestion to consider the actual credits earned through online courses while giving exemption of courses. 												
Resolution	Resolved to consider the above point in the upcoming curriculum												
Item 1.04	Ratification required for PSE Electives in R17 (PG) Curriculum.												
Discussion	<p>Dr. MEM presented and requested to ratify the following courses which were offered to PhD scholars as a part of their course work and place it for approval in the next BoS.</p> <p>17EDX29 - Design of Biomass Conversion Technology 17EDX30 - Welding Metallurgy 17EDX31 - Materials Characterization</p>												
Resolution	DAB Members resolved to ratify the syllabus of courses												
Item 1.05	Feedback analysis – Course end survey & Student exit survey of Batch 2018-22												
	Dr. MEM presented the student’s exit survey analysis of Batch 2018-22												
	Feedback	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
	High (%)	61	51	51	56	53	51	46	56	56	60	56	61
	Moderate (%)	32	40	42	35	40	40	47	40	39	32	35	30
	Low (%)	7	9	7	9	7	9	7	4	5	8	9	9
Discussion	Feedback	PSO1			PSO2			PSO3			PSO4		
	High (%)	49			49			44			49		
	Moderate (%)	40			42			46			46		
	Low (%)	11			9			10			5		
	Dr. PNK Kongu Engg. College suggested giving more attention to POs 7, 2 & 3 and its improvements. Dr. Saravanan Indoshell Cast also clarified about PSO and suggested to modify PSO4.												
Resolution	Resolved to record the comments and make necessary changes.												
Item 1.06	Revision of Department Vision, Mission, PEOs and PSOs												
Discussion	<p>Dr. MEM presented the Vision, Mission, PEOs and PSOs statements and explained the need for changing above statements.</p> <p>Dr. PNK Kongu Engg. College asked to prepare correlation matrix for Vision, Mission and PEO. Other members appreciated efforts taken by the dept. of Mechanical Engineering for bringing changes.</p>												
Resolution	Resolved to approve the modification in the Department Vision, Mission and PSOs statements.												

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Item 1.07	New Regulation [R22] and Curriculum with academic and industry expert comments																																		
Discussion	<p>DAB Chairman explained the need for new regulation (R22) and guidelines for framing curriculum based on AICTE model curriculum. Also presented the discussions of PAC as given below.</p> <ul style="list-style-type: none"> BoS coordinator suggestion of including certification courses as non-credit mandatory courses in the curriculum. He also explained the benefit of identifying important certification courses which would provide skills required to get placement. PAC members suggestion of making provision in the next regulation for considering the full credits earned by the students while giving course exemption in lieu of online courses. <p>Dr. Saravanan Indoshell Cast appreciated for incorporating practical component in the course "Engineering Graphics and Design" and suggested to put appropriate word for Design since students would be doing drafting work.</p> <p>Dr. PNK Kongu Engg. College suggested to refer AICTE model curriculum while framing syllabus for courses and appreciated for introducing Electrical and Electronics as two separate courses. He further suggested framing syllabus for above courses in consultation with industries since electric vehicles are emerging field.</p>																																		
Resolution	Resolved to include the suggestion of DAC members and placing it before next BOS meeting.																																		
Item 1.08	Department activity plan for the academic year 2022 – 2023.																																		
Discussion	<p>Dr. MEM presented the tentative Student's Association (SOME) activity plan for the year 2022-2023 as listed below.</p> <table border="1"> <thead> <tr> <th>S. No.</th> <th>Activity</th> <th>Month</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>SOME Association inaugural</td> <td>3rd week of August 2022</td> </tr> <tr> <td>2.</td> <td>Academic seminar-1</td> <td>4th week of August 2022</td> </tr> <tr> <td>3.</td> <td>Industrial seminar-1</td> <td>4th week of September 2022</td> </tr> <tr> <td>4.</td> <td>Workshop-1</td> <td>3rd week of October 2022</td> </tr> <tr> <td>5.</td> <td>Inter-department meet</td> <td>1st week of November 2022</td> </tr> <tr> <td>6.</td> <td>Intra-department meet</td> <td>1st week of January 2023</td> </tr> <tr> <td>7.</td> <td>Symposium & Workshops</td> <td>3rd week of February 2023</td> </tr> <tr> <td>8.</td> <td>Academic seminar-2</td> <td>2nd week of March 2023</td> </tr> <tr> <td>9.</td> <td>Industrial seminar-2</td> <td>1st week of April 2023</td> </tr> </tbody> </table>					S. No.	Activity	Month	1.	SOME Association inaugural	3 rd week of August 2022	2.	Academic seminar-1	4 th week of August 2022	3.	Industrial seminar-1	4 th week of September 2022	4.	Workshop-1	3 rd week of October 2022	5.	Inter-department meet	1 st week of November 2022	6.	Intra-department meet	1 st week of January 2023	7.	Symposium & Workshops	3 rd week of February 2023	8.	Academic seminar-2	2 nd week of March 2023	9.	Industrial seminar-2	1 st week of April 2023
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8.	Academic seminar-2	2 nd week of March 2023																																	
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Resolution	Members noted the above Association Activity plan for the academic year 2022 – 2023 and resolve to approve..																																		
Item 1.09	Result Analysis and Attainment of the CO, PO and PSO (Target fixed and attained) of 2021 passed out batch students.																																		
Discussion	The attainment of the program outcomes 8, 9 & 10 was found to be below 50% only. Hence Dr.MEM suggested the faculty members to identify the reason for low attainment that can improve.																																		
Resolution	Resolved to record the attainment.																																		
Item 1.10	Student admission quality																																		
Discussion	<p>Dr. MEM presented the details of students admitted in the year 2021-22</p> <ul style="list-style-type: none"> Counseling students – 51 Management students – 7 Maximum cut-off – 130 Minimum cut-off – 81 																																		
Resolution	Resolved to record the details																																		
Item 1.11	Discussion on Budget requirement and Utilization.																																		
Discussion	<p>Dr. MEM presented the budget utilization details of year 2021-22 and 2022-23 budget requirements.</p> <table border="1"> <thead> <tr> <th>Year</th> <th>Budget proposed</th> <th>Budget approved</th> <th>Utilization</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>2021-22</td> <td>150000</td> <td>123208</td> <td>68449</td> <td>-</td> </tr> <tr> <td>2022-23</td> <td>2728499</td> <td>2728499</td> <td>-</td> <td>-</td> </tr> </tbody> </table> <p>Members clarified the details of equipment to be purchased and its utilization to improve the attainment of CO, PO and PSO. Dr. MEM explained various heads of budget and proposals of purchasing software/hardware equipment.</p>					Year	Budget proposed	Budget approved	Utilization	Remarks	2021-22	150000	123208	68449	-	2022-23	2728499	2728499	-	-															
Year	Budget proposed	Budget approved	Utilization	Remarks																															
2021-22	150000	123208	68449	-																															
2022-23	2728499	2728499	-	-																															
Resolution	Resolved to approve proposed budget																																		



Table B.2.1.4c Continuous Improvements in the Regulation

S. No.	Category	Regulation 2013	Regulation 2015	Regulation 2017
1.	Curricular flexibility	Course exemption for Language Electives and One credit Courses	Continued	<ul style="list-style-type: none"> • Credits for Professional/Technical certifications/ MOOCS/ Online Courses/ Internships • Fast Track Course • Add-on Course • Workshop Mode Course • Industrial Projects
2.	Examination	Common pattern	Common pattern	<ul style="list-style-type: none"> • Introduced Different Question Paper Pattern
3.	Assessment	25% for Continuous assessment & 75% for End semester assessment.	40% for Continuous assessment & 60% for End semester assessment	Continued
4.	Summer/ Winter Track/Repeat/ Redo	-	-	Introduced
5.	Embedded courses	-	Introduced	One of the Programme Core is added as an embedded course
6.	Mandatory non-credit courses	-	-	<ul style="list-style-type: none"> • Constitution of India • Essence of Indian Traditional Knowledge • Personality and Character Development • Soft Skills, etc.
7.	Choice Based Credit System	-	CBCS introduced from 4 th semester onwards	Continued



2.2 Teaching-Learning Processes (70)

Self Assessment (70)

2.2.1 Describe Processes followed to improve quality of Teaching & Learning (15)

Self Assessment (15)


(Processes may include adherence to academic calendar and improving instruction methods using pedagogical initiatives such as real world examples, collaborative learning, quality of laboratory experience with regard to conducting experiments, recording observations, analysis of data etc. encouraging bright students, assisting weak students etc. The implementation details and impact analysis need to be documented)

Academic calendar preparation and adherence:

The academic calendar is prepared at the beginning of each semester in discussion with HoDs of various departments, Controller of Examinations office and released with the approval of the Principal.

The academic schedule consists of commencement of classes, last instruction day, continuous assessment test dates, model practical examinations dates, end semester practical exams dates, end semester theory exams dates, working days and holiday. A sample of academic calendar is given below in Figure B.2.2.1a.





Nandha Engineering College (Autonomous), Erode - 638 052
 Academic Year 2021-22 (Odd Semester)
 Academic Calendar for B.E/B.Tech/ME/MBA/MCA

Date	Day	B.E/B.Tech (VII Semester)	B.E/B.Tech (VI Semester) ME/MBA (III Semester) MCA (III & V Semester)	B.E/B.Tech (III Semester)	Remarks
15.07.2021	Thursday	Placement Training (03.07.21 to 31.07.21)	Placement Training (03.07.21 to 31.07.21)		
16.07.2021	Friday				
17.07.2021	Saturday				
18.07.2021	Sunday	*****	*****	*****	Holiday
19.07.2021	Monday				
20.07.2021	Tuesday				
21.07.2021	Wednesday	*****	*****	*****	Bakrid Holiday
22.07.2021	Thursday				
23.07.2021	Friday				
24.07.2021	Saturday	*****	*****	*****	Fourth Saturday Holiday
25.07.2021	Sunday	*****	*****	*****	Holiday
26.07.2021	Monday				
27.07.2021	Tuesday				
28.07.2021	Wednesday				
29.07.2021	Thursday				
30.07.2021	Friday				
31.07.2021	Saturday				
01.08.2021	Sunday	*****	*****	*****	Holiday
02.08.2021	Monday	Commencement of Classes 01	Commencement of Classes 01	Commencement of Classes 01	
03.08.2021	Tuesday	02	02	02	
04.08.2021	Wednesday	03	03	03	
05.08.2021	Thursday	04	04	04	
06.08.2021	Friday	05	05	05	
07.08.2021	Saturday	06	06	06	
08.08.2021	Sunday	*****	*****	*****	Holiday
09.08.2021	Monday	07	07	07	
10.08.2021	Tuesday	08	08	08	
11.08.2021	Wednesday	09	09	09	
12.08.2021	Thursday	10	10	10	
13.08.2021	Friday	11	11	11	
14.08.2021	Saturday	*****	*****	*****	Second Saturday Holiday
15.08.2021	Sunday	*****	*****	*****	Independence Day Holiday
16.08.2021	Monday	12	12	12	

24.09.2021	Friday		39		39		39	
25.09.2021	Saturday	Add on Course	-	Add on Course	-	*****	-	Fourth Saturday Holiday
26.09.2021	Sunday	Add on Course	-	Add on Course	-	*****	-	Holiday
27.09.2021	Monday		40		40		40	
28.09.2021	Tuesday		41	Model Exam for Laboratory Courses	41		41	
29.09.2021	Wednesday		42		42		42	
30.09.2021	Thursday		43		43	Model Exam for Laboratory Courses	43	
01.10.2021	Friday		44		44		44	
02.10.2021	Saturday	Add on Course	-	Add on Course	-	*****	-	Gandhi Jayanthi Holiday
03.10.2021	Sunday	Add on Course	-	Add on Course	-	*****	-	Holiday
04.10.2021	Monday		45		45	Theory Classes Not Physical made from 09.10.21 onwards	45	
05.10.2021	Tuesday		46		46		46	
06.10.2021	Wednesday		47	Assignment I	47		47	
07.10.2021	Thursday		48		48	Assignment I	48	
08.10.2021	Friday		49		49		49	
09.10.2021	Saturday		50		50		50	Working Day Compensation on 16.10.2021
10.10.2021	Sunday	Add on Course	-	Add on Course	-	*****	-	Holiday
11.10.2021	Monday		51		51	CAT I 3 Days Interval Programme for Latecomer Students from 11.10.21 to 13.10.21	51	
12.10.2021	Tuesday	Assignment I	52	CAT I	52		52	
13.10.2021	Wednesday		53		53		53	
14.10.2021	Thursday	*****	-	*****	-	*****	-	Saraswathi Pooja Holiday
15.10.2021	Friday	*****	-	*****	-	*****	-	Vijaya Dhanami Holiday
16.10.2021	Saturday	Add on Course	-	Add on Course	-	*****	-	Holiday in lieu of 09.10.2021
17.10.2021	Sunday	Add on Course	-	Add on Course	-	*****	-	Holiday
18.10.2021	Monday		54	Theory Classes Not Physical made from 18.10.21 onwards	54	Theory Classes Not Physical made from 18.10.21 onwards for Latecomer Students	54	
19.10.2021	Tuesday	Add on Course	-	Add on Course	-	*****	-	Midasan-Naha Holiday
20.10.2021	Wednesday		55		55		55	
21.10.2021	Thursday	CAT I	56	Online Test I	56	Online Test I	56	
22.10.2021	Friday		57		57		57	
23.10.2021	Saturday	Add on Course	-	Add on Course	-	*****	-	Fourth Saturday Holiday
24.10.2021	Sunday	Add on Course	-	Add on Course	-	*****	-	Holiday
25.10.2021	Monday		58		58		58	
26.10.2021	Tuesday	Online Test I	59		59		59	

Figure B.2.2.1a Screenshot of Academic Calendar

The timetable is prepared based on the Academic calendar and academic workloads are assigned to the individual faculty. The academic calendar and class timetable are circulated to the students and also displayed on the notice board. Individual faculty members prepare lesson plan based on the academic calendar and class timetable. The adherence to the academic calendar is ensured in the following ways:

- Monitoring of syllabus coverage by HoDs
- Reviewing syllabus coverage in the department meeting
- Adherence to Academic calendar is ensured by reviewing syllabus coverage and CAT dates in HoD’s meeting and rescheduling of exams will be decided in the meeting if there is any deviation due to unavoidable situation

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Adherence to Academic calendar is ensured here along with proof sample of log book entries. The first class for the final year students has started on prescribed date after the orientation class.

The screenshot displays two documents from a logbook. On the left is an attendance sheet for the month of August, listing students and their attendance status (Present, Absent, etc.) for each day. On the right is a course time table for 'FLUID POWER SYSTEMS' in the 5th semester, showing class times for Monday, Wednesday, and Friday. A red box highlights the 'Internal Assessment Report' section of the time table, which includes dates for internal assessments and corrected papers.

Roll No.	Name	Date	4	9	10	11	12	13	14	15	16	17	18
18ME006	Clement Andrew .C	Period	a	a	a	a	/	a	a	/	/	/	/
009	Eniyar .G.B		o	o	o	o	o	o	o	o	o	o	o
010	Gokul .R		o	o	o	o	o	o	o	o	o	o	o
011	Gokulakrishnan .P		o	o	o	o	o	o	o	o	o	o	o
013	Gowtham .S		o	o	o	o	o	o	o	o	o	o	o
016	Haridharani .K		/	/	/	/	/	/	/	/	/	/	/
018	Harry Davis .S		o	o	o	o	o	o	o	o	o	o	o
023	Hartheeswaran .M		o	o	o	o	o	o	o	o	o	o	o
027	Kavitha .S		a	/	/	/	/	a	a	a	a	a	a
028	Kishore .S		o	o	o	o	o	o	o	o	o	o	o
033	Manoj .M		o	o	o	o	o	o	o	o	o	o	o
036	Manisha .K		o	o	o	o	o	o	o	o	o	o	o
037	Mukesh Kumar .H.V		o	o	o	o	o	o	o	o	o	o	o
039	Pandiaraj .S.T		o	o	o	o	o	o	o	o	o	o	o
040	Praveen Kumar .B		o	o	o	o	o	o	o	o	o	o	o
043	Ravutha Babul .P.K		o	/	/	/	/	/	/	/	/	/	/
044	Rohit Jacob Roy		o	o	o	o	o	o	o	o	o	o	o
049	Santhosh Kumar .S		o	o	o	o	o	o	o	o	o	o	o
050	Saran Sanjay .R		o	o	o	o	o	o	o	o	o	o	o
052	Sahya Seelan .M.S.H		o	o	o	o	o	o	o	o	o	o	o
053	Shiva .V.R		o	o	o	o	o	o	o	o	o	o	o
055	Sowndaraj .V		o	o	o	o	o	o	o	o	o	o	o
059	Suganesh .T		/	/	/	/	/	/	/	/	/	/	/
Total Number of Absentees			2	1	2	1	1	4	4	1	1	2	4
Initial of the faculty			R	S	W	S	S	S	S	S	S	S	S

Figure B.2.2.1b Screenshot of Logbook

Pedagogical Initiatives

The following Pedagogical initiatives are being practiced to increase students’ engagements and learning outcomes of students.

ICT tools: Apart from chalk and board method, ICT tools such as projectors, TVs, computers, laptops, software programs, animations, MOOC Videos/ Webinar, etc are used to engage learners effectively and enhance learning outcome of students with the demonstration of real time examples in the classrooms. In addition, innovative teaching methods like quiz, role play, edmodo classroom, youtube videos, seminar, lecture notes using NPTEL videos, etc., are also employed as described in figure B.2.2.1b.



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Figure: B 2.2.1c ICT Tools

Interfacing students with industrial practices: The students could get experience of learning real world examples as they are engaged in the following ways in connection with industries.

- Industrial visits
- In-plant Training
- Internship
- Industrial projects
- Industry sponsored laboratory
- MoU's with industries and subsequent engagement of students
- One-credit courses conducted by industry persons

One credit courses:

In order to bridge the gap between academic and industry, the students are encouraged to register for one credit courses taught by concerned domain experts from the industry. Lecture/Hands on training happen for 15 hours in two weekends followed by an assessment. Students can register for one credit courses from third semester onwards. Later students can exempt a three credit elective subject in the final semester. Industry standards are learned better during the course of study itself.



Table B.2.2.1a One Credit Courses

ACADEMIC YEAR 2021-2022		
S.No.	DATE	TITLE
1	18/12/2021 & 19/12/2021	17MEI02 - Geometric Dimensioning & Tolerancing
2	09/04/2022 & 10/04/2022	17MEI06 - Industrial Automation & Control (SCADA & HMI)
3	14/05/2022 & 15/05/2022	17MEI07 - Numerical Modeling of Physical Systems in the Virtual Domain using CFD
4	11/06/2022 & 12/06/2022	17MEI08 - Advanced Industrial Automation & Robotics

ACADEMIC YEAR 2020-2021		
S.No.	DATE	TITLE
1	08/04/2021 & 09/04/2021	17MEI03 - Lean Manufacturing with 5S & Kaizen
2	15/04/2021 & 16/04/2021	17MEI05 - Statistical Process Control
3	21/01/2021, 22/01/2021 & 23/01/2021	17MEI02 - Geometric Dimensioning and Tolerancing
4	24/11/2020, 25/11/2020 & 26/11/2020	17MEI05 - Statistical Process Control
	22/11/2020, 25/11/2020 & 26/11/2020	17MEI04 - Press Tool Design and construction for sheet Metal

ACADEMIC YEAR 2019-2020		
S.No.	DATE	TITLE
1	15/02/2020, 22/02/2020 & 29/02/2020	17MEI03 - Lean Manufacturing with 5S & Kaizen
2	11/09/2019 & 14/09/2019	17MEI05 - Statistical Process Control
3	10/08/2019 & 23/08/2019	17MEI02 - Geometric Dimensioning & Tolerancing



ACADEMIC YEAR 2018-2019		
S.No.	DATE	TITLE
1	23/03/19&24/03/19	17MEI01 - Industrial Automation Using PLC
2	23/02/19&09/03/19	15MEI03 -Geometric Dimensioning and Tolerancing
3	14/07/18, 28/07/18 & 11/08/18	15MEI03 -Geometric Dimensioning and Tolerancing
4	08/09/18 &22/09/18	15MEI05 -Statistical Process Control

ACADEMIC YEAR 2017-2018		
S.No.	DATE	TITLE
1	26/01/18&27/01/18	15MEI01 – CNC Machines and Programming techniques
2	26/01/18& 27/01/18	15MEI04–Robot Automation using MOTOSIM EG

Embedded courses: It is a course having both theory and practical components. The Embedded courses are included in the curriculum from first semester onwards. Both theory and practical are taught to the students. Due weightage for both theory and practical components are given during the evaluation. This kind of courses improves practical knowledge and easy understating of concepts to the students.

Table B.2.2.1b Embedded Courses in Regulation - R17

S. No.	Semester	Course Code	Course Title	Category	L	T	P	C
1.	01	17EYA01	Professional English- I	HS	2	0	2	3
2.	02	17EYA02	Professional English- II	HS	2	0	2	3
3.	03	17MEC05	Fluid Mechanics and Machinery (Theory + Lab)	ES	3	0	2	4
4.	04	17MEC08	Kinematics of Machinery (Theory + Lab)	PC	3	0	2	4



5.	04	17MEC11	Strength of Materials (Theory + Lab)	ES	3	0	2	4
6.	05	17MEC14	Heat and Mass Transfer (Theory + Lab)	PC	3	0	2	4
7.	06	17MEC19	Metrology and Measurements (Theory + Lab)	PC	3	0	2	4

Collaborative Learning

- **Project-Based Learning:** In the curriculum one subject per semester is given to the students as Project-Based Learning (PBL) in which students explore realistic subject problems and challenges.

PBL is introduced to enable the students to apply the course principles on specific topic from the subject covering a unit or the entire syllabus and to carry out projects as part of the course. With this type of active and engaged learning, students are inspired to obtain a practical knowledge of the subjects they are studying.

Each project designed for PBL will be done by a group (3 to 4) of students. For instance, in Mechatronics, a real time problem is assigned to each and every group. When concepts about Sensors are taught in theory, the students will be able to decide the sensors to be used for their problem. Likewise, after completion of each and every phase the student will practically implement the concept learnt to solve the problem and finally simple deployable software will be used to design the circuits (if needed) by the students. This enables the student to understand the theory in a better manner.

The Projects developed in PBL will be scrutinized and submitted to CiPD for evaluation. Further, Innovative projects are encouraged for commercial deployment. Students are also motivated to do consultancy projects for various entrepreneurs and industries.



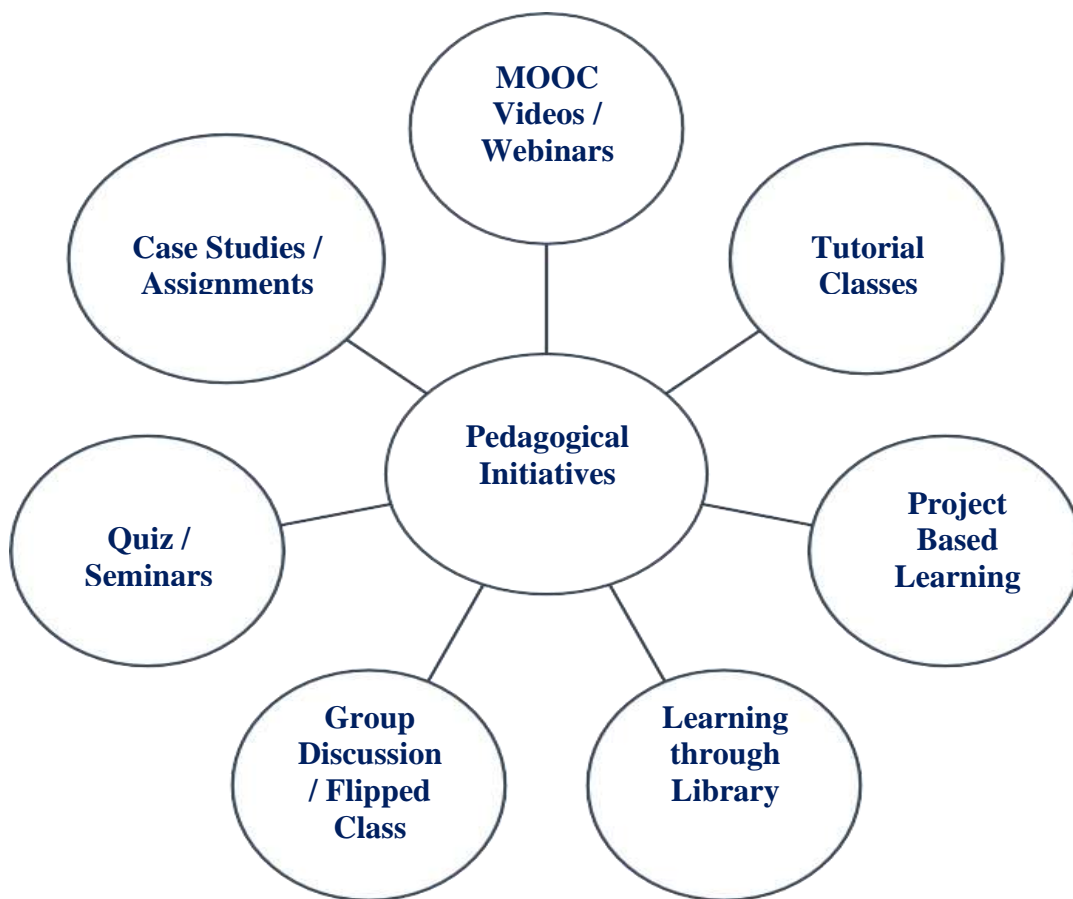


Figure B.2.2.1b Pedagogical Initiatives

- **Group Discussions:** This involves discussion among a group of students to assess the application of various concepts. By discussing among themselves, they gain better perspective about the merits & demerits of the various concepts
- **Flipped Class (for tutorial class/ assignments/ industrial case studies):** The faculty post the materials and publish the course plan in Google Classroom. The students are encouraged to prepare for the class before a topic is dealt in the class. The teacher plays the role of the facilitator and helps the students to understand any complex concepts through small group discussions

Add on courses

The students with good CGPA and without backlogs are encouraged to register to additional subjects from fourth semester onwards. Eligible students can register for one



additional subject (3 credits) in each semester (IV,V,VI and VII). These subjects are taught during weekends classes. Regular assessment happens to this subject. The students who have earned this credit can drop same number of credits in the higher semester. The college provides Bridge/ Remedial courses for various categories of students.

Table B.2.2.1dAdd on Courses

S. No.	Semester	Course Code	Course Title	Category	L	T	P	C
1	5	15MEX05	Micro Electro Mechanical Systems	PE	3	0	0	3
2	6	15MEX26	Industrial Robotics	PE	3	0	0	3
3	7	15MEX02	Design for Manufacturing	PE	3	0	0	3
4	4	17MEX18	Metal Casting Technology	PSE	3	0	0	3
5	5	17MEX19	Metal Forming Technology	PSE	3	0	0	3
6	6	17MEX12	Internal Combustion Engines	PSE	3	0	0	3
7	6	17GEA03	Total Quality Management	PSE	3	0	0	3
8	6	17CSX31	Problem Solving and Programming	OE	3	0	0	3
9	6	17ITX26	Problem Solving and Algorithmic Skills	OE	3	0	0	3
10	6	17EYZ04	Employability Enhancement and Analytical Skills	OE	3	0	0	3
11	5	17MEX41	Advanced Welding Processes	PSE	3	0	0	3
12	4	17MEX04	Product Design	PSE	3	0	0	3
13	6	17MEX21	Non-destructive Testing and Evaluation	PSE	3	0	0	3
14	7	17MEX22	Additive Manufacturing	PSE	3	0	0	3



Bridge Courses

Bridge Courses are organized for the first year students to provide basic computer knowledge to students from biology stream in higher secondary school.

Bridge courses are also conducted for the lateral entry students at the beginning of third and fourth semester to enhance the knowledge on Mathematics.

Remedial courses

Remedial coaching is given to the average and the slow learners by taking extra coaching classes for slow learners during evening hours, prior to internal exams and end of semesters.

Learning through Library: To augment Teaching - Learning process, modernized library resources are used in different ways for both students and staff members. The students are allotted separate session in the timetable as library period to get benefitted. The teachers and students are permitted to access the library books, journals and magazines. Department Library also functions to cater to the immediate needs of teachers and students.

Enhancing students learning by engaging with professional societies and leading universities: The students are favoured by enabling them in participation of activities of professional societies and further they are encouraged in doing Project internship in leading foreign universities like Universiti Teknologi Petronas to explore their talents in international level.

Flexible Faculty Selection: One of the facilities available to students is Flexible Faculty Selection system in choosing their faculty members for the courses.

Open electives for multidisciplinary knowledge: The students gain multidisciplinary knowledge by means of open elective courses to bring out innovative interdisciplinary projects and innovations.

Methodologies to support slow learners and encourage bright students:

The process of identifying slow learners and bright students is presented below and followed by the methodologies descriptions



The College has provided the following facilities for career guidance:

- Student Industrial Preparatory wing focuses on industrial relevant subjects handled by the faculty members who got trained by industry.

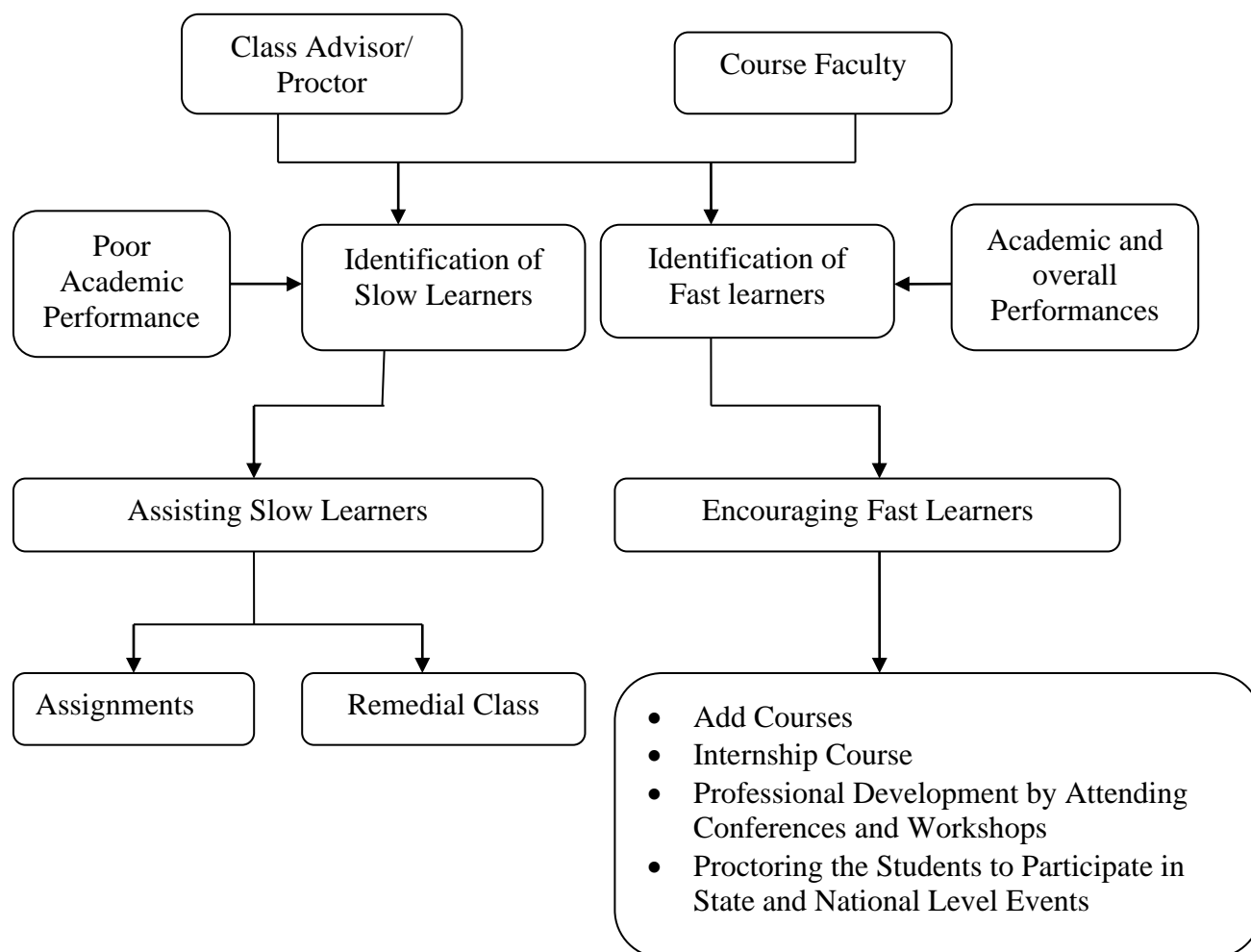


Figure B.2.2.1c Process used to identify and support the Slow Learners and Fast learners

- Placement and training cell with full time Placement Officer and Trainer provides training from the beginning of the first year.



- Online test, mock interviews, group discussions are given to the students, making them ready for placement.
- Inviting companies for presentation and conduct of campus placements.
- Higher Education Cell provides way to prepare for Competitive exam and GATE.
- Entrepreneurship Development Cell motivates the students to become entrepreneurs through regular Entrepreneurship Awareness Camp programs and thus make them job providers rather than job seekers.

Encouragement for the bright students

Fast learners are encouraged to utilize every opportunity that enhances their potential. This helps them to improve their standard of excellence. Add course option is provided to bright students with an objective of relieving them from the regular academic workload and spare the time for internship, preparing for placement/ higher studies/ competitive examinations/ industry projects, participation in seminars/ workshops/ conferences/ product development activities - CiPD, supporting slow learners through quality circle concept.

Methodologies to encourage the slow learners

The slow learners are supported by the faculty members in the following ways:

- Remedial classes for slow learners
- Interaction of Parents of slow learners
- Counselling by proctors
- Peer learning
- Providing simplified learning materials



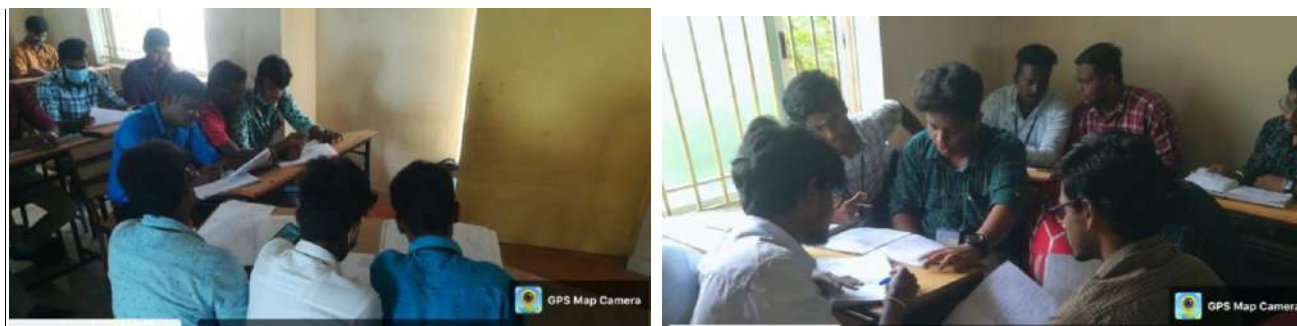


Figure B. 2.2.1d Quality Circle to improve the performance of slow learners

The slow learners are encouraged to meet the faculty regularly to gain additional instructions related to their studies. Previous year solved question papers are distributed to the above category students which helps them to improve their academic performance.

Quality of classroom teaching

Clean and spacious classrooms with requisite furniture, boards, UPS connections, etc, are facilitated for enabling the right eco-system to impart quality education. The faculty members adopt following Teaching & Learning methodologies to create the effective learning ambiance for students their classrooms:

- a) Integration of technology with classroom:** In order to effectively engage students and improve the quality of teaching-learning process, faculty members use video lectures, online resources and ICT tools (Projector, Laptop/ Computer, software, etc) along with conventional black board teaching method.
- b) Support for active learning:** Faculty members guide students to be active learner by providing course handouts and class notes (digital course contents) well in advance. The students are engaged in classroom activities regularly beyond listening lecture by means of quizzes, online tests, seminars, tutorials/ assignments. Students are effectively involved in the classroom by presenting the learning contents of previous class session and summarizing briefly at the end of the class in a random manner in-order to demonstrate their personalized learning experience.
- c) Enhancing quality of teaching through industrial experience:** The faculty members are encouraged to undergo FDP and online courses (NPTEL) to improve their pedagogical skills from time to time. Further they are involved to visit industries and learn the industrial practices.



Conduct of experiments:

The process of conducting experiments in a laboratory is explained in the following steps:

- The lab manuals are prepared well before the commencement of the semester as prescribed in the syllabus.
- The total number of experiments in the laboratory course is divided into two cycles (Cycle 1 and Cycle 2).
- Each class is divided into two groups and the two groups are sent to two separate laboratories; in further they are divided into batches of maximum four students.
- Each group will do the experiments separately in order to make them understand and conduct the laboratory experiment and to get individual attention from the faculty.
- The students record the experimental values in their observation after completing the relevant calculations; the students submit the same for evaluation.

Continuous Assessment in the laboratory:

The students' performance in the laboratory is continuously assessed experiment-wise and online tests.

- Student's performance in each laboratory experiment is evaluated based on the parameters like preparation, execution of experiments, results and viva-voce.
- MCQ type online tests are conducted at the end of each cycle to measure the performance of students related to experiments
- A Model lab exam of 3 hours duration is conducted after the completion all the experiments to assess the students' performance and their readiness for end semester examinations
- The final practical examination is conducted for 3 hour duration at the end of the semester.

Student's feedback on Teaching Learning and action taken

The processes for collecting students' feedback to improve the classroom delivery, teaching-learning process and further to address the diverse learners' needs are given below:

- Class committee feedback:
- Mid-semester feedback



- Feedback at the end of the course
- Informal feedbacks collected by HoD

Class committee meetings are conducted regularly to monitor the teaching-learning, evaluation process, ensure syllabus completion, collection of feedbacks, solve students based issues in an easiest way.

NANDHA ENGINEERING COLLEGE (Autonomous)
ERODE- 638 052
Department of Mechanical Engineering

Date of CCM: 29.04.2022

Complaint no.	Nature of feedback	Year	Action taken
274138	17MEC11 The presentation of explaining problems cannot understand by the students	II Year-A	Respective faculty member is instructed to explain problems in detail for better understating.
274139	Exam time must be in afternoon so that coaching at morning will be effective	II Year-A	Exam schedules are decided by exam cell.(commonly for all programmes). Students request is forwarded to exam cell.
274140	Industrial visit and local visit needed	II Year-A	Request sent to industries. Waiting for permission.
274141	Need club activities in the Saturdays	II Year-A	Normally club activities will be arranged on Saturday. Overall coordinator of club activity is informed about the students feedback.
274142	Projector needed for PPT lecture and video lecture.	II Year-A	At present one project and one TV are available. Request is given for additional projectors.
274143	Video/animation based lecture needed for some topics in 17MEB06	II Year-B	Respective faculty member is instructed to show Video/animation.
274144	Need projector in class room and Need industrial visit.	II Year-B	At present one project and one TV are available. Request is given for additional projectors. Request sent to industries. Waiting for permission.

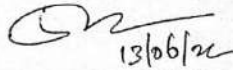

 13/06/22
Dr. M.EASWARAMOORTHI M.E.,Ph.D.,
 Head of the Department,
 Department of Mechanical Engineering
 Nandha Engineering College (Autonomous)
 ERODE - 638 052.

Figure B.2.2.1e Screenshot of Class Committee Meeting



274133	4/28/2022	MEC	MEC-EEE	TO BE GIVEN CLASS ROOM NEED TO BE CLEAN PROPERLY IN NEED TO BE ARRANGED	BLOCK-4 I-EEE	CCM	RAMANI G- 9940728576	Academic	Not Completed
274136	4/28/2022	MEC	MEC-MBA	Communication Hour needed	I-MBA	CCM	Manimegalai- 99716875440	Academic	Not Completed
274145	4/28/2022	MEC	MEC-MCA	STUDENTS SAID THAT AC,FAN ARE NOT IN GOOD CONDITION,SO THEY ASKED TO REPAIR AC,FAN IN LAB	BLOCK-3 I-MCA	CCM	Vellingiraj - 9965361666	Academic	Not Completed
274138	4/28/2022	MEC	MEC-MECH	17MEC11- THE PRESENTATION OF EXPLAINING PROBLEMS CANNOT UNDERSTAND BY THE STUDENTS. EXAM TIME MUST BE IN AFTERNOON,SO THAT COACHING AT MORNING WILL BE EFFECTIVE	BLOCK 2- II-A	CCM	EASWARAMOORHITI N-9842013355	Academic	Not Completed
274139	4/28/2022	MEC	MEC-MECH		BLOCK 2- II YEAR A	CCM	EASWARAMOORHITI N-9842013355	Academic	Not Completed
274140	4/28/2022	MEC	MEC-MECH	INDUSTRIAL VISIT AND LOCAL VISIT NEEDED.	BLOCK 2- II YEAR A	CCM	EASWARAMOORHITI N-9842013355	Academic	Not Completed

Figure B.2.2.1f Screenshot of Action Taken Report of Class Committee Meeting

Feedbacks on teaching learning process during middle of the semester and at the end of every semester are collected from students and accordingly HoD and Principal discuss on it for the betterment of students. Feedback regarding each and every course is collected from the students at the end of every semester and suitable suggestions by students are taken into account and the necessary changes/modifications are accommodated by revising the curriculum.

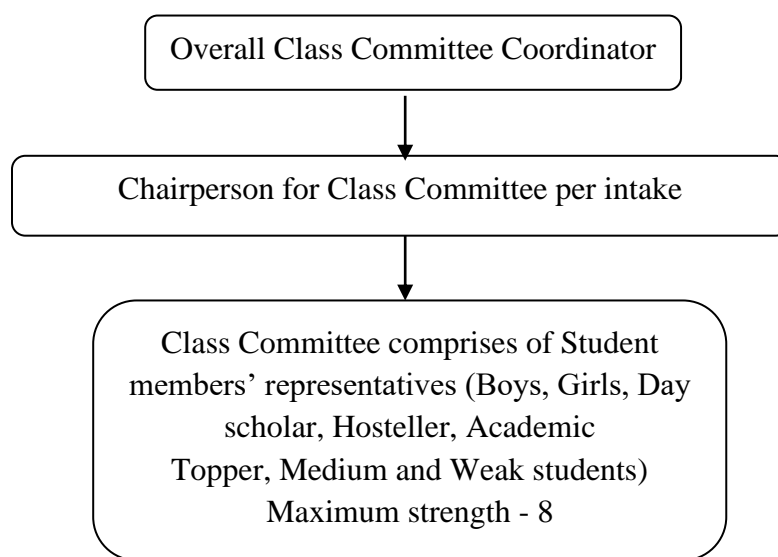
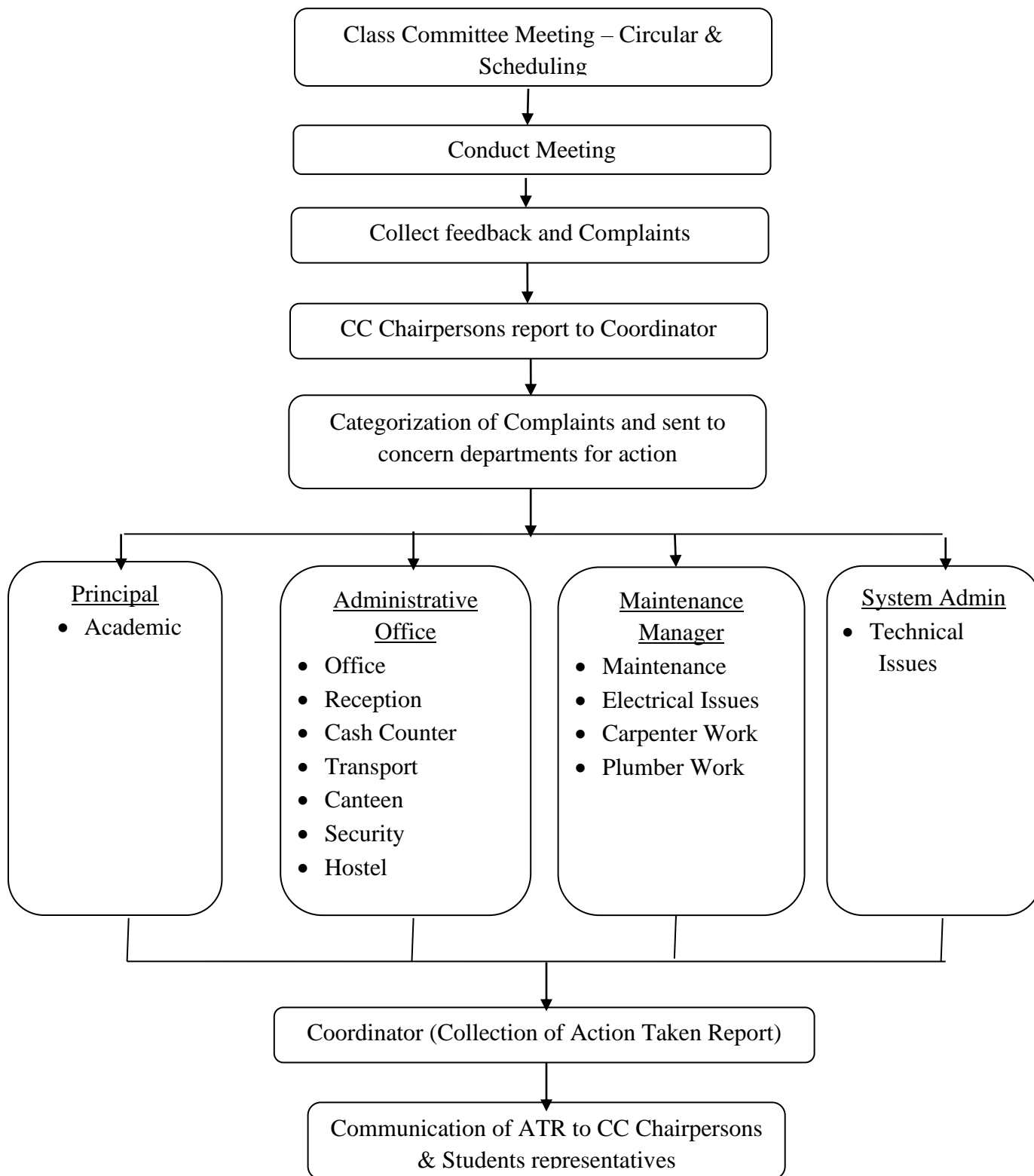


Figure B.2.2.1g Structure of Class Committee



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Figure B.2.2.1h Process flow for Class Committee Meeting



Effectiveness of the Process

The effectiveness of the process is ensured through

- Class Committee Meetings
- Academic Audit

A course committee is formed comprising of the entire faculty handling the course, with the senior most faculty being the course coordinator. The course committee meets before the start of the course and after each Continuous Assessment Test (CAT) to prepare the lesson plan, decides the portions for CAT, assignment patterns and periodically review the attainment of COs.

The class committee meeting comprises of students, all the course handling faculty members and a faculty member from other department as a chairperson. The feedback is obtained from the students on syllabus coverage, content delivery, assessment and evaluation and any other matter related to academics as well as co-curricular and extra-curricular activities.

An Academic Audit is conducted periodically in a semester to audit the course file. The course file consists of lesson plan, course material prepared for that particular course based on the lesson plan, tutorial problems for analytical courses and contents beyond the syllabus, assignments, sample CAT answer papers and question papers.

Table B.2.2.1e Summary of Academic Initiatives, Implementation and Impact Analysis

Initiative	Implementation	Impact Analysis
Academic Calendar		
A common calendar, listing out all important dates and details, is prepared by Office of CoE and made available to all faculty and students	<ul style="list-style-type: none"> • All faculty members and students are instructed to adhere to the schedule • Knowing the Academic Year start and end dates, 	<ul style="list-style-type: none"> • Faculty members and students adhere to the schedule of calendar for prioritizing their activities. • Faculty members can deliver



	examination schedules, holidays, and events happening across the Institute, calendar is useful to plan semester activities.	the course considering examination schedule and public holidays. • Students can plan the summer / winter internships
Teaching and Learning		
Implementation of innovative teaching methodologies	<ul style="list-style-type: none"> • Google Classroom • MOOC / Video Lectures • Case Studies / Assignments • Mobile Learning • NEC Library Portal • Revised Blooms Taxonomy • Hands-on mode delivery • Assignments / Quiz • Student centered approach in which every student is engaged effectively 	<ul style="list-style-type: none"> • Outcome based teaching methodology favours active learning as opposed to passive learning • Innovative practices in the form of quiz, seminars and surprise tests, assignments, analytical problem solving, formative assessments at the end of every topic has the positive impact on the teaching – learning process. y • Students are given opportunities to express their views on academic aspects/activities • Overall personality development of the students which is evident in good placement record
Collaborative Learning		
Alumni Interaction (Interactive Learning)	• Alumni interaction with reference to recent technological developments,	• Students become aware of their strengths and weakness by interaction



	<p>supplementary course lectures and career guidance</p> <ul style="list-style-type: none"> • Small Group Discussion • Project Based Learning • Field Visits • Laboratory Based Learning 	<ul style="list-style-type: none"> • Established contacts motivate students for higher education, placement and preparation • Acquire knowledge on industrial practices and requirements of industry
<p>One - Credit Courses (The current and relevant topics pertaining to the advancements in the core engineering are offered as one credit course)</p>	<ul style="list-style-type: none"> • Experts from industry offer one credit courses • Students can choose one course in each semester 	<ul style="list-style-type: none"> • Interactions with industry personnel make students to understand the industrial practices in specialized topics and applications. • These courses help in placements particularly in core areas
<p>Seminars / Workshops (Interactive Learning) Organized by other Institutes / Industries</p>	<ul style="list-style-type: none"> • Academic coordinators and proctors motivate their students to participate and present papers/ posters in seminars and attend workshops • Information on Seminars/ Workshops conducted in various other colleges/ universities/ institutes are circulated among the students 	<ul style="list-style-type: none"> • Seminars / Workshops outside the campus motivate students to establish rapport with few peers from other institutes and enhance awareness and competitiveness • Provides an opportunity for exchanging of information, findings and ideas among participants. Seminars are useful to identify the emerging areas
<p>Seminar by Academic experts</p>	<ul style="list-style-type: none"> • Course handling faculties encourage students to add value to their technical knowledge by organizing 	<ul style="list-style-type: none"> • Student gains additional knowledge to stabilize their area of interests.



	guest lectures.	
Demonstration of ideas through Presentation	Students are made to do presentations in their familiar areas.	<ul style="list-style-type: none"> • Gains knowledge and skills by expressing their thoughts.
Laboratory based Learning	In addition to course content laboratory experiments, the students are given study experiments, which are content beyond syllabus to the students for their technical improvement.	<ul style="list-style-type: none"> • Acquires confidence in experiencing the latest requirements and advancements in the laboratories
Project Based Learning	One course per semester is given to the students as Project-Based Learning (PBL) to inculcate the habit of learning by doing projects.	<ul style="list-style-type: none"> • Students beyond the laboratory experience, they gain additional practical experiences and expertise in making working prototypes. • Encourage the students in applying and benefitting by the funding proposals with TNSCST.
Learning through Library	<ul style="list-style-type: none"> • Library resources are used in different ways for benefitting students. 	<ul style="list-style-type: none"> • The students are benefitted by permitting them to access the library books, journals and magazines to improve their literature skills.
Identification of Fast learners	<ul style="list-style-type: none"> • Faculty members categorize the bright and fast learners among the class strength to improve their skills. 	<ul style="list-style-type: none"> • Gain motivation for attending internships and workshops to improve their employability skills • Acquire leadership skills



		<ul style="list-style-type: none"> • Succeed in carrying out innovative projects • Take Add courses to enable them in attending internships in final years
Identification of Slow learners	<ul style="list-style-type: none"> • Faculty members identify the slow learners among the class strength to improve their academics. 	<ul style="list-style-type: none"> • Able to explain the concepts, gain confidence in studies and overcome hurdles like poor communication and academic background • Improve his performance in tests
Internship	<ul style="list-style-type: none"> • Faculty incharges and members arrange the Internship programs to make students work in industry environments. 	<ul style="list-style-type: none"> • Students acquire the experience of using modern and effective tools
Industrial visit	<ul style="list-style-type: none"> • Faculty incharges and members arrange the Industrial visits to have a view about the industry environments. 	<ul style="list-style-type: none"> • Students experience the industry practices and current scenario.
Industry sponsored laboratory	Faculty members in association with industries make arrangements for industry sponsored laboratories to create industrial environment within the campus.	Students get exposure to know industrial practices and understand the concepts by seeing samples of real components/cut section models/ use latest software packages and technologies in core industries.



Signing MoUs with industries	<ul style="list-style-type: none"> • Faculty members regularly establish strong relationship between college and industries by means of agreements and MoUs. 	Students get opportunity to undergo internships, Industrial visit, do projects and placements.
Engaging with professional societies and leading universities	<ul style="list-style-type: none"> • Enhancing students learning by engaging them with professional societies like SAE and leading universities by project internship. 	Students develop contacts with industry persons, know the ongoing practices of industry, create scope for taking industry projects and gain knowledge through seminars/interactions/workshops /product development, etc.



2.2.2 Quality of end semester examination, internal semester question papers, assignments and evaluation (15)

Self Assessment (15)

(Mention the initiatives, implementation details and analysis of learning levels related to quality of semester tests, assignments and evaluation)

Quality of internal semester question papers:

The structure of the internal assessment tests consist of

- Continuous Assessment Tests (CAT) - 2
- On-line tests - 2
- Assignments/ Tutorial/ Quizzes - 2

The process for preparing question paper for internal assessment tests is described below:

Two internal assessment tests are conducted after completing 8th week and 16th week respectively. Each test covers half of the syllabus. The tests are conducted for a maximum of 50 marks. (No minimum marks criteria from the university). The duration of the test is one and half hour and question paper is set to make the student to learn time management.

The faculty members prepare questions according to

- The curriculum and assessment frameworks for different subjects.
- Course Outcomes (CO) in the syllabus.
- Different levels of Blooms taxonomy

The department HoD along with two faculty members check the quality of the question paper, RBT levels and COs coverage and compliance. The course coordinator will submit the Question Paper to HoDs for approval. The HoD will assess the quality of the question papers in terms of syllabus coverage, application of Blooms taxonomy and relevance to COs. To ensure confidentiality and security the department wise examination coordinators are nominated.



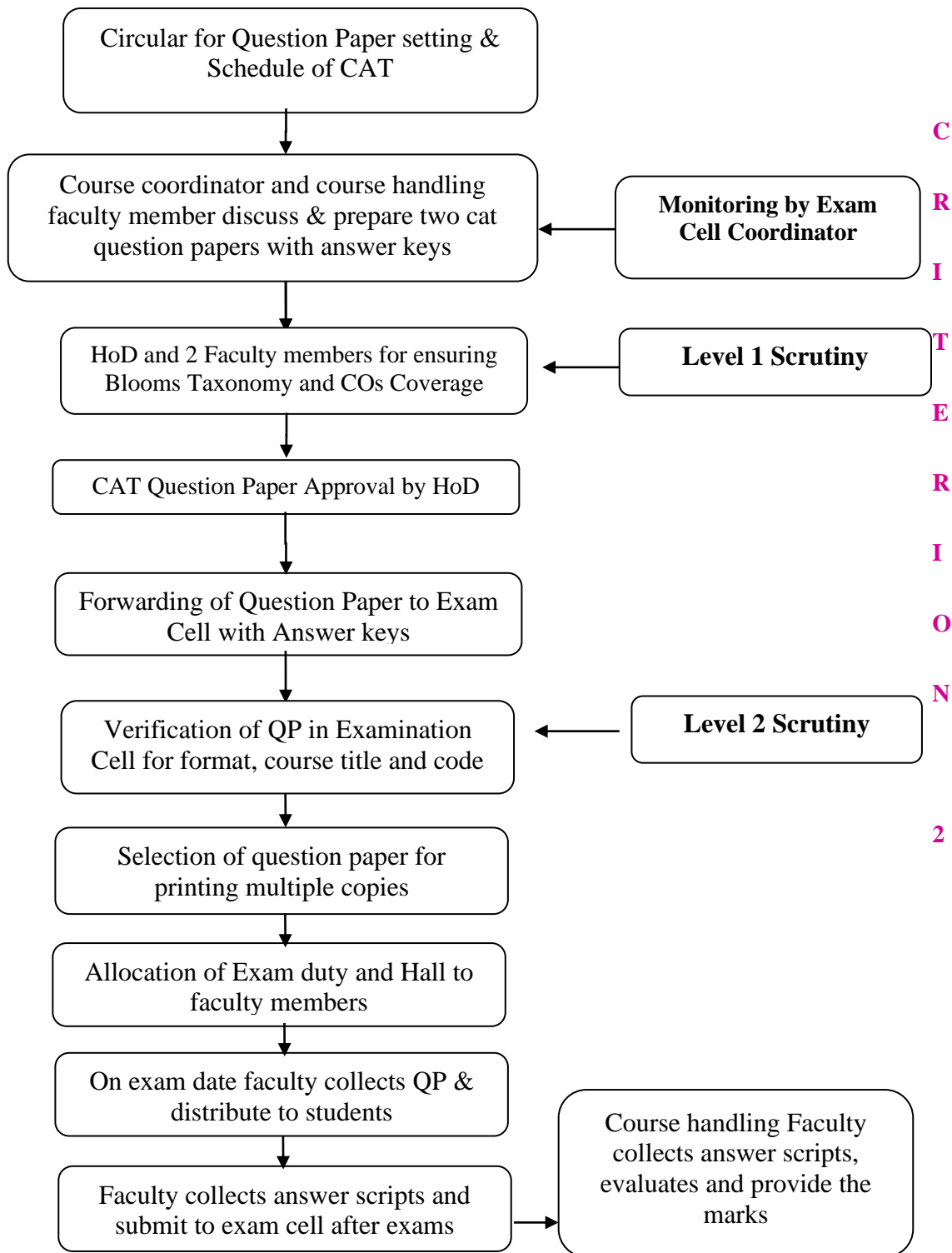


Figure B.2.2.2a Internal Test/ Continuous Assessment Test Question Paper Process

They will collect two sets of question paper with answer key and submit the same to examination cell in a sealed cover. Course Coordinators Meetings and Internal audits are carried out to identify areas for improvement. Audit teams consisting of senior faculty members verify the quality of question papers and the quality of assessment (answer booklet) after every Continuous Assessment Test (CAT).

Process to ensure questions from outcomes/learning levels perspective:

- While setting the question papers, faculty members ensure the Course Outcomes coverage and knowledge levels in the questions with relevance to the course outcomes learning levels.
- Scrutiny team checks the quality of the Question paper with respect to the coverage of COs and blooms taxonomy levels.
- Academic Audit committees also check the quality of the Question papers.
- Based on the marks scored by the students, PO/CO attainment level is calculated to understand the learning level of the student.
- After this process, a review is conducted by HoD to find the level of attainment of Course Outcomes and Program Outcomes.
- If the attainment level is not satisfactory, then the subject handling faculty member is advised to handle separate classes for slow learners.

Evidence of COs coverage in Continuous Assessment Test (CAT)

- The evidence of Course Outcomes coverage in the Continuous Assessment Test question papers is ensured during the Question Paper scrutiny process by HoD with 2 faculty members. Further the COs coverage is also verified during the Academic Audit which is scheduled once in a semester. Sample Question paper is shown below to exhibit the COs coverage.



R17

Register No.

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NANDHA ENGINEERING COLLEGE, ERODE - 52 (An Autonomous Institution, Affiliated to Anna University, Chennai)		
B.E/B.Tech.	Continuous Assessment Test - I	Feb-2020
Year : 03	Semester: 6	MECH
17MEX16 – AUTOMOBILE ENGINEERING		
Time : 90 minutes	Maximum Marks : 50	
QUESTION PATTERN TYPE-III		
Bloom's Taxonomy Knowledge level		
R- Remembering(K1)	U- Understanding(K2)	Ap-Applying(K3)
An- Analysing(K4)	E- Evaluating(K5)	C- Creating(K6)

GENERAL INSTRUCTIONS TO THE CANDIDATES

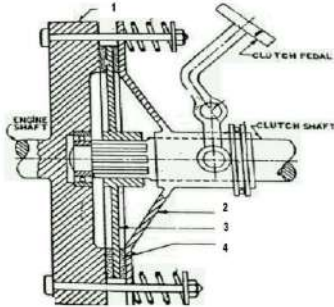
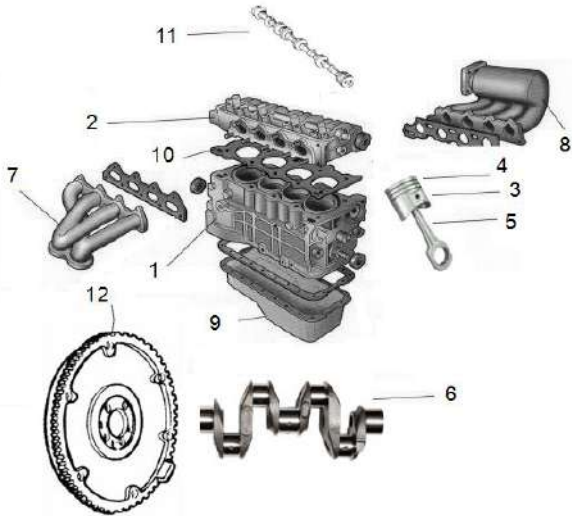
1. Candidates are instructed to answer the questions as per Bloom's Taxonomy Knowledge level (K1 to K6)
2. Candidates are strictly instructed not to write anything in the question paper other than their register number.
3. Candidates should search their pockets, desks and benches and handover to the Hall Superintendent/ Invigilator if any paper, book or note which they may find therein as soon as they enter the examination hall.
4. Candidates are not permitted to bring electronic watches with memory, laptop computers, personal systems, Walkie-talkie sets, paging devices, mobile phones, cameras, recording systems or any other gadget/device/object that would be of unfair assistance to him/her.
5. Corrective measures as per NEC examination policies will be imposed for malpractice in the hall like copying from any papers, books or notes and attempting to elicit the answer from neighbours.

COURSE OUTCOMES :After successful completion of this course, the students should be able to	
CO1	List the components of an automobile and/or demonstrate the working principles of cooling and lubrication systems
CO2	Identify the components of fuel supply and ignition systems of an automobile
CO3	Classify the types of clutches, gear boxes and other transmission systems
CO4	Describe the working principles of steering, braking and suspension systems
CO5	Summarize the emission levels of the automobiles and the types of advanced technologies

Part – A (Answer all the Questions) -5 X 2 = 10 Marks		CO	KL	Marks
A1	Classify automobiles with respect to the drives.	CO1	K1	2
A2	Predict and indicate the forces and moments acting on the car body from the Figure given below. <div style="text-align: center; margin-top: 10px;"> </div>	CO1	K5	2
A3	List the functions of Turbo chargers.	CO2	K1	2
A4	Electric cars more expensive than IC engine powered cars – Justify.	CO2	K5	2
A5	Give the role of pressure plate in a clutch.	CO3	K2	2
Part – B (Answer any four questions) - 4 X 4 = 16 Marks		CO	KL	Marks



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B1	Discuss the working of mist lubrication system with a sketch.	CO1	K2	4
B2	Write short notes on vehicle aerodynamics.	CO1	K2	4
B3	Assess the benefits of Multi point over mono point fuel injection.	CO2	K2	4
B4	Explain the construction and working of Unit injection system with neat sketch.	CO2	K1	4
B5	With a suitable diagram explain the working of synchromesh gear box.	CO3	K2	4
B6	Identify the type of clutch and write the name of parts (1, 2, 3, & 4). 	CO3	K3	4
Part – C(Answer any two questions) - 2 X 12 = 24 Marks		CO	KL	Marks
C1	An exploded view of IC engine is given below. Identify the major components of IC Engine and write the name of components. 	CO1	K2	12
C2	With the help of a neat sketch discuss in detail the working principle of a splash lubrication system used in IC engine.	CO1	K2	12
C3	Few of the cars/Jeeps are having letter display “CRDI”. Mention your inference and describe the working of CRDI with neat sketch.	CO2	K4	12
C4	Name the automobile which runs with sliding mesh gear box and explain the functioning of sliding mesh gear box and constant mesh gear box with a neat sketch.	CO3	K3	12

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R. G. J.

Prepared by

[Signature]

Approved by

Figure B.2.2.2b Sample Question Paper of Continuous Assessment Test



Quality of assignments and relevance to COs:

- Assignments are given to the students to achieve the outcomes of the courses to promote the self-learning.
- Every semester, two assignments (E-assignment and Written assignment) are given to the students.
- The assignments are relevant to the curriculum and relevant to the Course Outcomes.
- In Assignment - 1, CO-1, CO-2 and CO3 are covered and in case of other assignment, CO4 and CO5 are covered.
- The assignment marks are evaluated and it forms a part of the internal mark component.

NANDHA ENGINEERING COLLEGE, ERODE-52 (An Autonomous Institution, Affiliated to Anna University, Chennai)						
B.E/B. Tech.	Assignment - I		MAY 2022			
Year : III	Semester: VI		Mechanical Engineering			
Course code 17MEX16		Course title: AUTOMOBILE ENGINEERING				
Date of issue: 23.05.2022	Due date of submission: 30.05.2022		Maximum Marks : 50			
Bloom's Taxonomy knowledge level (KL)						
Remembering K1	Understanding K2	Applying K3	Analysing K4	Evaluating K5	Creating K6	
CO – Course outcomes						
CO1: List the components of an automobile and/or demonstrate the working principles of cooling and lubrication systems.						
CO2: Identify the components of fuel supply and ignition systems of an automobile.						
CO3: Classify the types of clutches, gear boxes and other transmission systems						
Answer all the questions				Marks	KL	CO
1	Draw the layout of an automobile and indicate the various components			10	K2	CO1
2	Explain in detail about the various components of engine with neat sketches			10	K2	CO1
3	Mention the type fuel injection system available in popular diesel engines and explain its operation with neat sketch.			10	K3	CO2
4	Compare the working principle of turbo charger and super charger with neat sketch.			10	K3	CO2
5	Explain the working principle of single plate clutch and multi plate with neat sketch.			10	K2	CO3
Prepared by <i>Lanby</i> 23/5/22			Approved by <i>[Signature]</i> 23/5/22			

Figure B.2.2.2c Sample Assignment Question Paper

Quality of online test and relevance to COs:

- Every semester, three online tests (technical quiz) are conducted to the students. The online tests are relevant to the curriculum and relevant to the CO.
- The internal marks are calculated based on evaluation done through the software “Moodle”, which in turn questions will be uploaded and corrections will also be carried by the software itself.



Quality of end semester examination papers:

The process followed to ensure the quality of end semester question paper is described below.

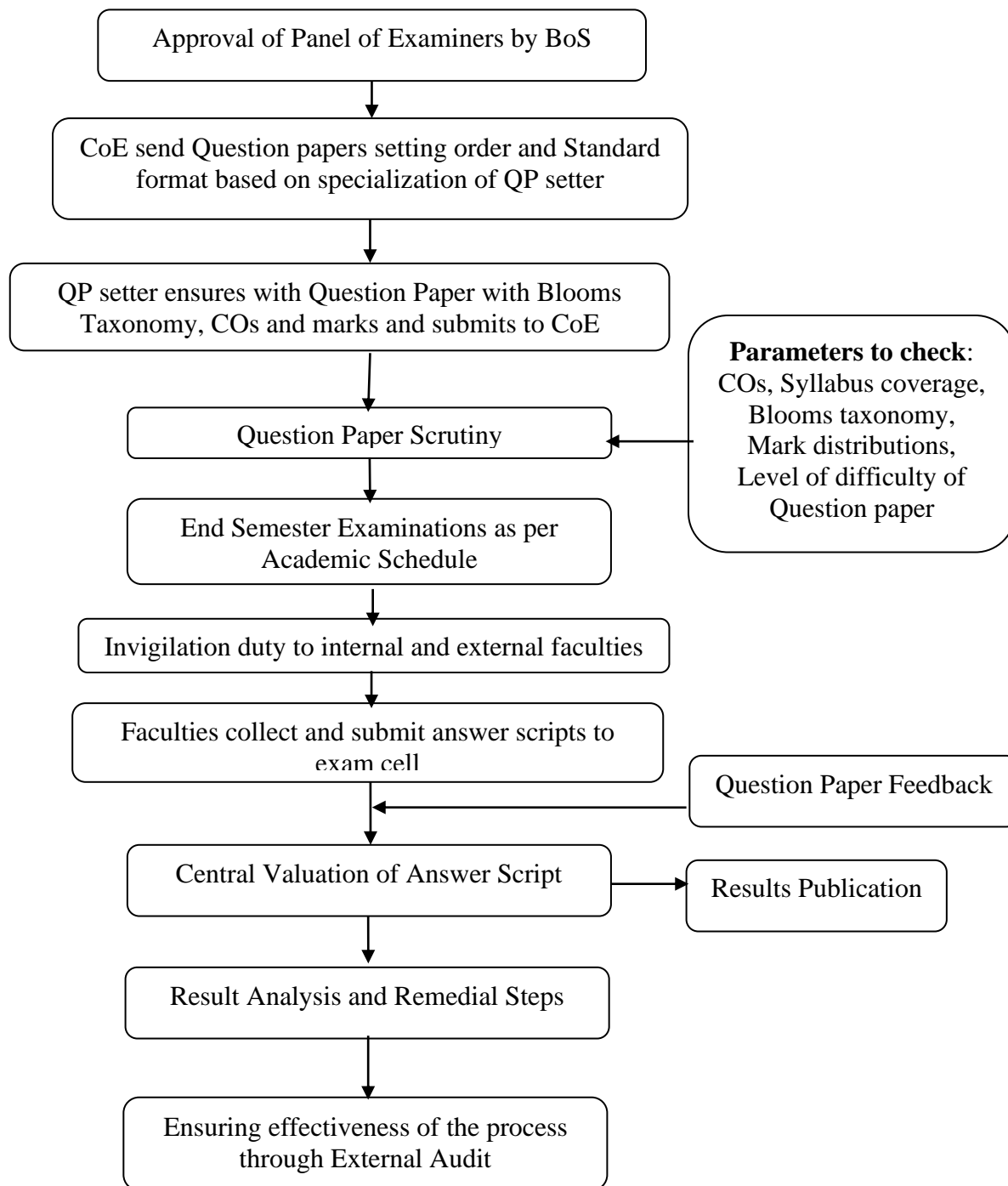


Figure B.2.2.2d Process to Ensure the Quality of End Semester Examinations

R17 -T IV

Register No.									
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Question Paper Code : 1772161

NANDHA ENGINEERING COLLEGE (Autonomous), ERODE – 638 052
B.E/B.Tech DEGREE END SEMESTER EXAMINATIONS – NOV, 2021

<i>Knowledge Level</i>	<i>KL</i>	<i>Course Outcome</i>	<i>CO</i>		
<i>Remembering</i>	<i>K1</i>	<i>Applying</i>	<i>K3</i>	<i>Evaluating</i>	<i>K5</i>
<i>Understanding</i>	<i>K2</i>	<i>Analyzing</i>	<i>K4</i>	<i>Creating</i>	<i>K6</i>

Semester VII

17MEC21 - FINITE ELEMENT ANALYSIS

Course Outcomes :

- CO1 Understand the use of the FEM to solve problems in Mechanical Engineering.
- CO2 Use the Finite Element Method to solve one dimensional Structural and Eigen value problems.
- CO3 Use the FEM to solve two dimensional scalar variable structural and heat transfer problems.
- CO4 Use the FEM to solve two dimensional axisymmetric problems and fluid mechanics problem.
- CO5 Solve the problems involving Isoparametric, numerical integration approach.

Max. Marks: 100

Time: 3 Hours

PART - A (10 x 2 = 20 MARKS)

ANSWER ALL QUESTIONS

Q. No	Questions	Marks	KL	CO
A1.	Recall shape function and list the properties.	(2)	2	1
A2.	List the various weighted residual methods.	(2)	2	1
A3.	Define discretization with classification.	(2)	2	2
A4.	Compare between CST and LST element.	(2)	4	2
A5.	List the three conditions for the axisymmetric element.	(2)	2	3
A6.	Define plane stress with suitable example.	(2)	4	3
A7.	What is the purpose of isoparametric elements?	(2)	3	4
A8.	Define Jacobian matrix.	(2)	5	4
A9.	In what why the natural frequency is related with element stiffness?	(2)	4	5
A10.	State about the lumped mass matrix and consistent mass matrix.	(2)	2	5

PART - B(4X8 =32 MARKS)

ANSWER ANY FOUR QUESTIONS

- B1. List and briefly describe the general steps of the finite element method. (8) 2 1
- B2. For the constant strain triangular element shown in figure 1.0, assemble strain- displacement matrix (B). Take $t=20\text{mm}$ and $E=2 \times 10^5 \text{ N/mm}^2$

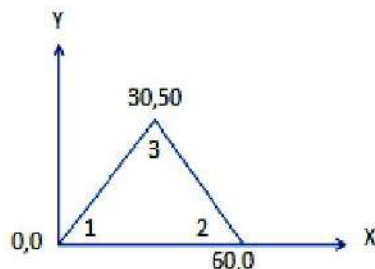


Figure 1.0

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- B3. Derive the shape functions for axi symmetric element. (8) 2 3
- B4. Determine the Cartesian co-ordinates of the point (P) which has local coordinates $\xi = 0.8, \eta = 0.6$ as shown in figure 2.0.

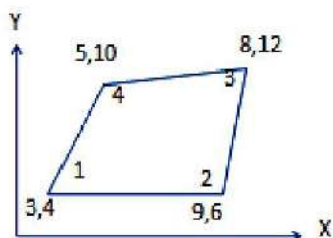


Figure 2.0

- B5. Evaluate the integral $\int_{-1}^{+1} f(x) = 2+x+x^2$ between the limits -1 and +1 using two point Gauss quadrature. Compare this with exact solution. (8) 2 4
- B6. Compute the eigen value and natural frequency for the given stiffness matrix (K) and mass matrix (m) (8) 5 4
- $$(k) = 2AE/l \begin{pmatrix} 3 & -1 \\ -1 & 1 \end{pmatrix} \text{ and } (m) = \rho Al/12 \begin{pmatrix} 6 & 1 \\ 1 & 2 \end{pmatrix}$$
- (8) 5 5

PART - C (3X16 = 48 MARKS)
ANSWER ANY THREE QUESTIONS

- C1. The following differential equation is available for a physical phenomenon. $d^2y/dx^2 + 50 = 0, 0 < x < 10$. The trial function is, $y = ax(10-x)$ The boundary conditions are $y(0) = 0$ and $y(10) = 0$ Find the value of the parameter 'a' by all residual methods. (16) 5 1
- C2. For the plane stress element shown in figure 3.0, the nodal displacements are $U_1 = 2\text{mm}, U_2 = 1\text{mm}$ and $U_3 = 2.5\text{mm}, V_1 = 1\text{mm}, V_2 = 1.5\text{mm}$ and $V_3 = 0.5\text{mm}$. Determine the element stresses. Assume $E = 2 \times 10^5 \text{ N/mm}^2, \mu = 0.3$ and $t = 10\text{mm}$. (16) 5 2

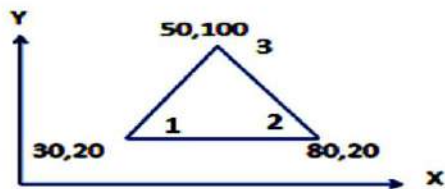


Figure 3.0

(16) 5 2

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- C3. For the Axisymmetric element shown in Figure 4.0. Take $E = 2 \times 10^5$ N/mm² and $\mu = 0.25$. The co-ordinates are in millimeters. Determine the stiffness matrix with check condition of properties.

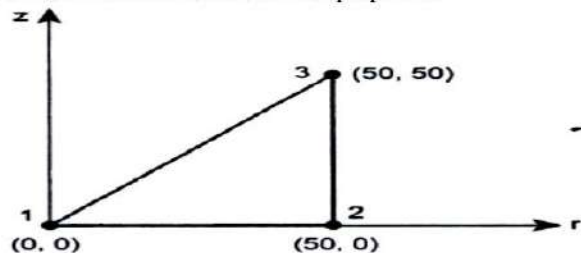


Figure 4.0

(16) 5 3

- C4. Evaluate the Jacobian matrix at the local coordinates $\xi = 0.5, \eta = 0.5$ for the Isoparametric quadrilateral element with global coordinates as shown in figure 5.0. Also evaluate the strain-displacement matrix (B).

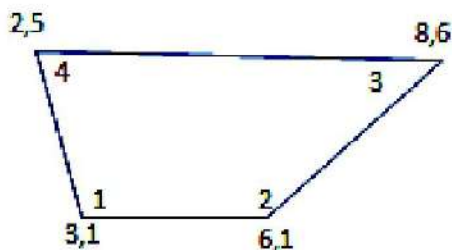


Figure 5.0

(16) 5 4

- C5. Consider the axial vibration of a steel bar shown in figure 6.0. Determine Global stiffness, Mass matrix and natural frequency. Assume density 8500Kg/m³ and $A_1 = 1\text{m}^2, A_2 = 0.5\text{m}^2, E = 30 \times 10^{10}$ N/m².

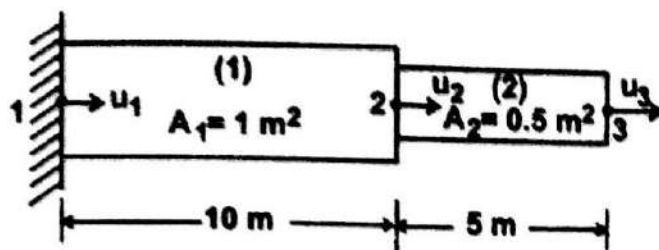


Figure 6.0

(16) 5 5

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Figure B.2.2.2e Sample Question Paper of End Semester Examination



Table B.2.2.2a Summary of Initiatives, Implementation and Impact Analysis related to examinations

Initiative	Implementation	Impact Analysis
Question paper patterns	<ul style="list-style-type: none"> The internal assessment and end semester question papers are prepared based on the types of pattern of the question paper depending on the types of the course. 	<ul style="list-style-type: none"> Students could answer the exams easily depending on the level of complexity of the courses as it decides the pattern of the Question paper. Develop ability to extract and interpret exact meaning of questions and write clear answers
e-assignments	<ul style="list-style-type: none"> One of the two assignments could be submitted as e-assignment by the students. 	<ul style="list-style-type: none"> Gain the practice of exploring more details beyond the text book Improved communication skills and emailing habits
Online tests	<ul style="list-style-type: none"> Students are made to attend On-line test which is of MCQ type. 	<ul style="list-style-type: none"> Flexible to take exams anywhere and anytime. Helps the students to get feedback regarding their performance very quickly. Acquire knowledge in using the digital tools Students involvement has been improved
Online quiz	<ul style="list-style-type: none"> Students do attend On-line quiz 	<ul style="list-style-type: none"> Flexible timing of exam is the advantage for Students Effective engagement of students



2.2.3 Quality of student projects (20)

Self Assessment (20)

Identification of projects, allocation methodology and Process for monitoring and evaluation

2.2.3 A Identification and allocation methodology of projects:

The step by step process of identification of titles/area, allocation, monitoring and evaluations of projects is explained below.

- HoD assigns the project coordinator for each section of the final year. The final year students do projects with a team size not exceeding 4 per group. The faculty members are assigned as project guides based on students' project area, specialization of faculty members and industrial problems. Students confirm their project titles in consultation with the guides.
- The HoD constitutes a project committee which consists of senior faculty members to evaluate the progress of the projects and performance of the students as per the guidelines specified in the regulations.
- Project coordinator and project guides facilitate students to identify the problem(s) by literature review/ industrial field survey, formulate methodology to be adopted and time line to complete the project. The above points are ensured during evaluation in zeroth review.
- The continuous monitoring and evaluation are carried out with another two periodic reviews. The end semester evaluation includes demonstration of working prototypes/computational models followed by project viva-voce.
- Students done quality projects are encouraged to present/publish their work in the national/international conferences and journals.
- The continuous assessment marks for the project is awarded based on the performance of students in the review and demonstration of the working prototypes.
- The end semester assessment is done in the presence of internal examiner and external examiner, who is preferably from the industry or academia having rich experience.

The Process of projects allocation methodology, monitoring and evaluation are shown in Fig. 2.2.3a.

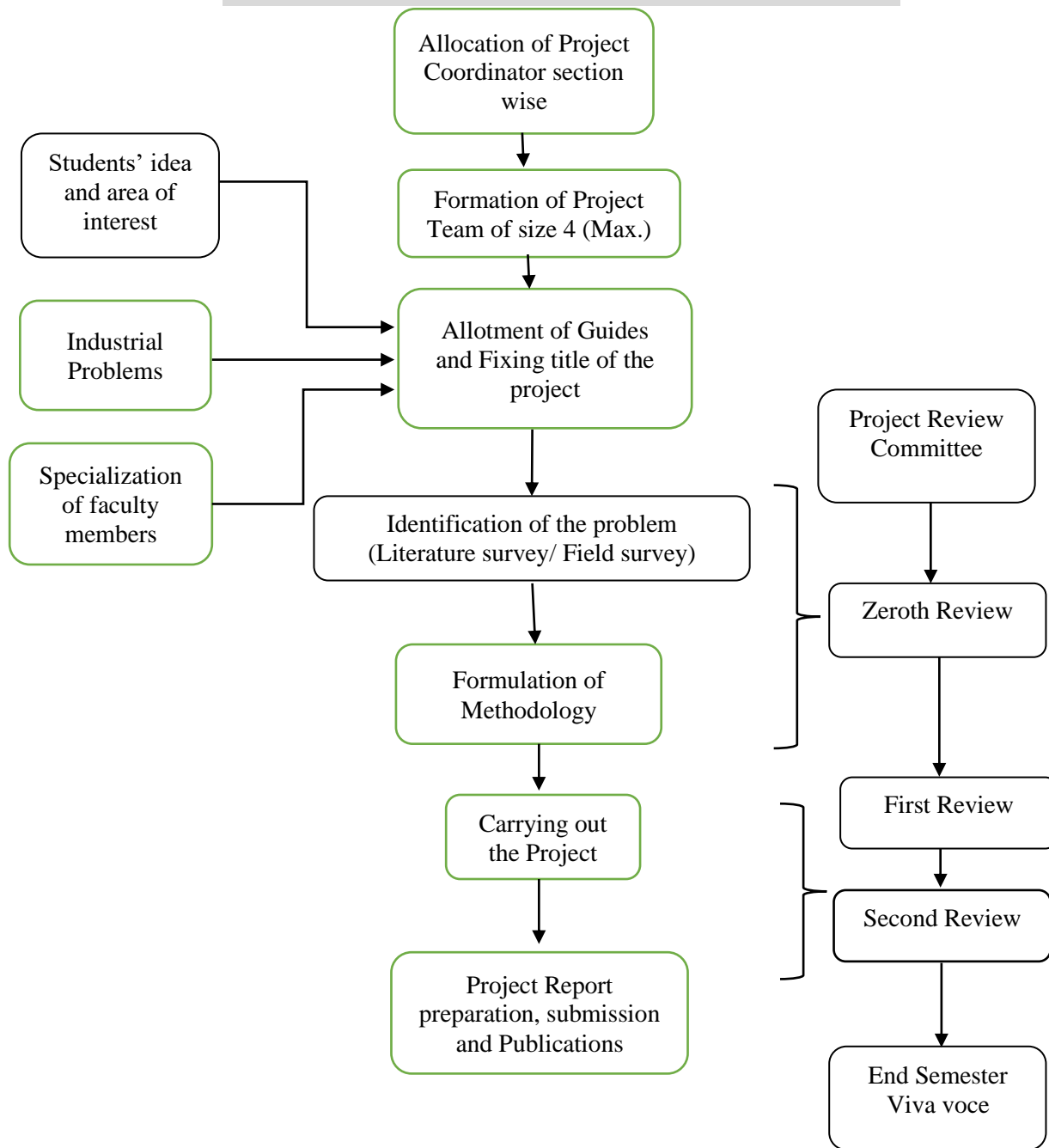


Fig.2.2.3a Process of projects allocation methodology, monitoring and evaluation

2.2.3. B Types and Relevance of Projects and attainment of POs and PSOs

17MED02 - PROJECT WORK II ACADEMIC YEAR 2021-2022											
BATCH NO.	REGISTER NUMBER	STUDENT NAME	PROJECT TITLE	GUIDE NAME	TYPE OF PROJECT	OBJECTIVES	FACTORS CONSIDERED				JOURNAL PUBLICATION DETAILS
							ENVIRONMENT	SAFETY	ETHICS	COST (Rs.)	
1	18ME003	BARATH KUMAR R	DESIGN AND ANALYSIS OF HELICAL SPRING IN TWO - WHEELER SHOCK ABSORBER	Mr. Ravichandran .D	DESIGN AND ANALYSIS	To design spring with lightweight and high load-carrying capacity	✓	✓		-	Published in International Journal, IJSART, Vol: 8, Issue 7, 2022
	18ME014	GOWTHAM S									
	18ME015	GUNA T									
	18ME021	JANASHWARAN V									
2	18ME005	CHANDRAHARI.K.A	ANALYSIS AND RECYCLING OF WASTE WATER COLLECTED FROM AUTOMOBILE SERVICE STATION	Mr. Velliyangiri .B	ANALYSIS AND RECYCLING	To separate oil from waste water by using oil skimmers	✓	✓	✓	9720	
	18ME030	MAHENDREN P									
	18ME038	NIYAASAHAAMED A									
3	18ME022	JAWAHAR C	WASTE HEAT RECOVERY IN REFRIGRATION SYSTEM BY USING MOLTEN SALT AS PHASE CHANGE MATERIAL	Mr. Rajkumar .R	WASTE HEAT RECOVERY	To utilize waste heat from condenser of refrigerator	✓	✓		12200	
	18ME034	MITHUN R									
	18ME045	RUBALAN S									
	18ME069	VIGNESH S									



4	18ME002	ARIVANANDHAN R R	INVESTIGATION OF HEAT TRANSFER ENHANCEMENT IN THE RECTANGULAR GROOVE WICK STRUCTURE HEAT PIPE WITH R134a AS WORKING FLUENT USING ANSYS FLUENT	Mr. Shanmugam .M	INVESTIGATION OF HEAT TRANSFER ENHANCEMENT	To provide a comparative statement of performance of a rectangular groove wick structure heat pipe and the working fluids R113, R134a, and R22	✓	✓		-	Published in International Journal, IJRPR, Vol: 3, Issue 7, 2022
	18ME008	DHAMODHIRAN K									
	18ME048	SANJAYKUMAR R									
	18ME065	VASANTH R									
5	18ME041	RAGHUL A	DESIGN AND FABRICATION OF FIRE EXTINGUISHER DRONE USING CO2 BALL AND SPRAYER	Mr. Muruganantham .S	DESIGN AND FABRICATION	To control the fire in remote areas & To reduce the risk of fire fighters	✓	✓	✓	18719	Published in International Journal, IJRASET, Vol: 10, Issue X, 2022
	18ME042	RAJPRASATH B									
	18ME051	SARANKUMAR.M									
	18MEL25	KRISHNA PRASATH P									
6	18ME047	SAKTHIVEL V	DESIGN AND FABRICATION OF DUAL PURPOSE WHEEL CHAIR	Dr. Senniagiri .N	DESIGN AND FABRICATION	Providing detachable stretcher which will make it easy for shifting the patient	✓	✓	✓	8000	Published in International Journal, IJRPR, Vol: 3, Issue 10, 2022
	18ME057	SRINIVASAN P									
	18ME060	SURYA S									
	18ME061	TAMILKAVIN P									
7	18ME004	BHARATH V	DESIGN AND FABRICATION OF PARALLEL CAR PARKING SYSTEM USING 5TH WHEEL (MOTORISED)	Mr. Mohamed Ajmal Mahasin .M	DESIGN AND FABRICATION	To Reduce the complexity of parking vehicles	✓	✓	✓	14250	Published in International Journal, IJRPR, Vol: 3, Issue 10, 2022
	18ME012	GOWTHAM P									
	18ME025	KARTHIKEYAN E									
	18ME031	MAHESWARAN N									



8	18MEL05	ARJUN R	IMPROVING THE VOLTAGE AND AMPERE OF AN ALOE VERA BATTERY WITH SERIES AND PARALLEL CONNECTIONS	Mr. Omprakas .M.A	ALOE VERA BATTERY	To reduce environmental pollution and cost of the battery	✓	✓	✓	5600	
	18MEL07	ASSVIN RAAJKUMAAR D K									
	18MEL15	GOWTHAM S									
	18MEL17	KABIL V									
9	18MEL02	ABILASH SHARMA N	DESIGN AND FABRICATION OF AUTOMATIC TYRE INFLATION AND DEFLATION SYSTEM	Mr. Loganathan .V.N	DESIGN AND FABRICATI ON	To design an automatic tyre inflation and deflation system	✓	✓		12325	
	18MEL19	KANNAN V									
	18MEL23	KAVIN S									
	18MEL41	PRASHANTH V P									
10	18MEL26	LOGANATHAN R	EXPERIMENTA L INVESTIGATIO N OF HEAT TRANSFER RATE IN LITHUM - ION BATTERY USING HEAT PIPE WITH FREON-R22 AS PHASE CHANGE MATERIALS(PC M)	Mr. Sugumar .M	HEAT TRANSFER RATE	To regulate the temperature of the cells, thereby increasing the life span of the battery	✓	✓		-	
	18MEL28	MEIVELAN C D									
	18MEL29	MOHANRAJ R									
	18MEL30	MUTHUKUMAR.L									



11	18MEL12	DHINESH KUMAR R	IoT-ENABLED DOOR OPENING AND CLOSING SYSTEM FOR MONITORING BODY TEMPERATURE AND FACE MASK DETECTION	Dr. Magibalan .S	IoT-ENABLED SYSTEM	IoT-based solution aiming to increase COVID-19 indoor safety	✓	✓	✓	12000	
	18MEL24	KAVIRAJ.M									
	18MEL27	MANOJ KUMAR S									
	18MEL51	TAMILARASAN B									
12	18ME063	THRISUL J	FABRICATION AND TESTING OF REINFORCED COMPOSITE MATERIAL USING SISAL AND JUTE FIBERS	Dr. Senniagirri .N	FABRICATI ON AND TESTING	Assessment of mechanical behaviour of sisal and jute fibre with epoxy resin and reinforced matrix composite materials	✓			10250	Published in Materials Today Proceedings Scopus Indexed Journal https://doi.org/10.1016/j.matpr.2022.09.1032214-7853 copyright Elsevier 2022
	18MEL06	ARUNKUMAR N									
	18MEL11	DHANAPAL. A									
	18MEL18	KAMALAKANNAN K									
13	18ME001	ANANDHU SAJI	DESIGN AND FABRICATION OF SOLAR POWERED AUTOMATED DRAIN SEWAGE CLEANER	Mr. Sengottaiyan .M	DESIGN AND FABRICATI ON	To replace the manual work in drainage cleaning by an automated system	✓	✓	✓	8000	
	18ME035	MONESHRAJ D									
	18ME054	SOORAJ SURESH									
	18ME070	VINOTHKUMAR D									



14	18ME019	JAISIN RAJ J	DESIGN AND FABRICATION OF MULTIPURPOSE MACHINE FOR MINI FARM AGRICULTURE USING DC MOTOR	Dr. Ashok Kumar .B	DESIGN AND FABRICATION	weeding, ploughing, seeding, levelling, and water spraying in agriculture into a single machine	✓	✓	9580	Published in International Journal of Research Publication and Reviews, Vol 3, no 10, pp 2185-2193, October 2022	
	18ME020	JANARTHANAN S									
	18ME029	LAKSHMI NARAYANAN.M									
15	18ME017	HARIHARAN S	DESIGN AND FABRICATION OF BATTERY ASSOCIATED LOW COST WEEDER MACHINE	Mr. Mohamed Ajmal Mahasin .M	DESIGN AND FABRICATION	To design and fabricate a mini corn thresher using a drill machine	✓	✓	4800	Published in International Journal, IJRPR, Vol: 3, Issue 9, 2022	
	18ME026	KATHIRVEL N									
	18ME056	SRI KARAN A V									
16	18ME007	DEV M	DESIGN AND FABRICATION OF SEMI AUTOMATIC COCONUT HUSK REMOVER	Mr. Mohamed Ajmal Mahasin .M	DESIGN AND FABRICATION	To design a machine for chipping the coconut husks to reduce the cost and increase the work efficiency	✓	✓	✓	10000	
17	18ME044	ROHN JACOB ROY	Design and Fabrication of Wet Grinder with Extra Roller	Dr. N.Senniagiri	Manufacturing	To increase the overall efficiency	✓	✓	Manufacturing & Assembling Cost-Rs.6500 /-	International Journal of Research Publication and Reviews ISSN 2582-7421	
	18ME013	GOWTHAM.S									
	18ME062	TAMILVASANTHAN.R									
	18ME052	SATHIYA SEELAN MSK									



18	18MEL20	KARTHICK M	The Experimental Investigation and Optimization of Machining Parameters of Conventional Lathe (Turning Operation)	Mr. Omprakas .M.A	Tribology /Manufacturing	To estimate the tool life	✓			8,000	
	18MEL32	NAVEEN PR									
	18ME027	KAVIYARASU R									
	18MEL13	DINESHKUMAR. V									
19	18ME053	SHIVA VR	Investigation of CPU Life Span in Desktop by Recovering the Heat Using Heat Pipe Technology with R32 as Working Fluid	Mr. Shanmugam .M	Thermal / Waste heat recovery	To increase the life span of Electronic devices	✓	✓		7000	International Journal of Research Publication and Reviews Volume 3 ISSN 2582-7421 October 22
	18ME055	SOWNDARRAJ V									
	18ME071	VISHNU PRAKASH G									
20	18MEL22	KARTHIKEYAN.S	Enhancing the Wear Resistance of EN24 Steel bt using Nano-Powder (SIO2) in SAE50 Engine oils	Mr. Ravichandran	Tribology	To reduce the wearing of Engine components	✓			12,000	
	18MEL54	VIKASH.R									
	18MEL34	NIRMAL RAJ.P									
21	18ME049	SANTHOSHKUMAR .S	Design and Fabrication of Pedal Operated Forklift: A Review	Dr. Easwaramoorthi	Manufacturing	To reduce manual effort in material handling		✓		20,000	-National Conference on Advances in Mechanical Sciences (AIMS 2022)
	18MEL52	TAMIL SELVAN . T									
	18MEL40	PRASANTH.S									
	18ME006	CLEMENT ANDREW.C									
	18MEL10	DEVARAJ.G									



22	18MEL36	NITHISH D	Design and Fabrication of Electric Three-Wheel Scooter for Disable Person	Dr. S. Magibalan	design / Disable Person	Daily travel purpose to Disable Person	✓	✓	10000	
	18MEL42	RAGU C								
	18MEL43	RAVEESHANKAR C								
	18MEL46	SABARI V								
23	18MEL03	ABINAYA.S	Experimental Investigation of Process Parameters on Material Removal Rate and Surface Roughness in Turning Operation (CNC)	Dr. M. Manikandan	Tribology/Manufacturing	To estimate the tool life	✓		Testing Cost Rs.8,000	
	18MEL14	GOKUL.V								
	18MEL55	VIVEKA.R								
	18MEL56	YOGARAJ.M								
24	18MEL04	AJITH KANNAN.K	Design and Fabrication of Petrol and Hybrid Vehicles	Mr. Velliyangiri .B	Design and Fabrication / Hybrid Vehicles	Fabricate the Hybrid vehicle	✓	✓	2500	
	18MEL09	CHANDARAMOWLI.N								
	18MEL49	SRIDHAR.V								
	18MEL50	SRINIVASAN.V								
25	18ME009	ENIYAN G B	Design and Analysis of PMSM Motor in Skewing Process	Dr. Easwaramoorthi	PMSM motor design and Analysis for EV	Analysis of PMSM motor	✓	✓	Analysis cost - Nil	National Conference on Advances in Mechanical Sciences (AIMS 2022)
	18ME016	HARI DHARANI K								
	18ME040	PRAVEEN KUMAR B								
	18ME059	SUGENESH.T								
26	18ME011	GOKULA KRISHAN P	Experimental Analysis of Heat Transfer Enhancement in Double-pipe Heat Exchanger with Various Flow Configuration	Mr. Venkateshan .T	Design and analysis of optimized flow configurations (Fractal design)	To increase the heat transfer efficiency	✓		Rs. 8000	
	18ME028	KISHORE S								
	18ME050	SARAN SANJAY R								
	18ME064	VARUN KESHAV M								



27	18ME037	MUKESH KUMAR K V	Production of Construction Materials using Plastic Wastes	Mr. Balakrishnan.S	Manufacturing	To Increase the hardness of the construction materials	✓	✓		Sand brick Moulding & Testing Rs.4500 /-	International Journal of Research Publication and Reviews ISSN 2582-7421
	18ME067	VIGNESH A									
	18ME068	VIGNESH A									
	18MEL39	PRASHANT K									
28	18ME023	KARTHEESWARAN M	Fabrication of Automatic Air Bag Alternative System	Dr. Ashok Kumar	Design	To design an automatic Air Bag Alternative System	✓	✓	12000	International Journal of Research Publication and Reviews, Vol 3, no 10, pp 2185-2193, October 2022 ISSN 2582-7421	
	18ME043	RAVUTHA RAHUL PK									
	18ME010	GOKUL.R									
	18ME018	HARRY DAVIS S									
29	18MEL01	ABHINANDHAN.S	Development of Waste Segregation and Handling Mechanism:	Mr. Eswaran .S	Design	To separate the wastage in smart dustbin using embedded technology	✓	✓	14000		
	18MEL21	KARTHIKEYAN.S									
	18MEL44	RISWAN AHMED.P.H									
	18MEL48	SENTHIL KUMAR.P									
30	18MEL31	NANTHA KISHORE A	Developing Concrete Material from Waste Plastic	Mr. Sengottaiyan .	Construction	To Create Wealth From Waste plastic	✓	✓	-	Rs.10 / unit mass Production	International Journal of Research Publication and Reviews ISSN 2582-7421
	18MEL33	NAVEEN KUMAR N									
	18MEL35	NITHESH K.P									
	18MEL45	RUBAN A									
31	18ME036	MONISHA K	Study on Lanthanum Strontium with Period 4 Elements as a Cathode Material for SOFC	Dr. Easwaramoorthi	Materials Engineering	To study alternative materials for Fuel cell application	✓	✓	Nil	Internship at UTP	



32	18ME039	PANDIARAJ S T	Review of Frictionless Braking System	Dr. Easwaramoorthi	Manufacturing	To study the scope of manufacturing Frictionless Braking system for automotive application		✓		15,000/-	National Conference on Advances in Mechanical Sciences (AIMS 2022)
	18ME033	MANOJ M									



Mapping with PO and PSO																				
B NO.	REG. NO	STUDENT NAME	PROJECT TITLE	SUPERVISOR/ GUIDE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02	PS03	PS04
1	18ME003	BARATH KUMAR R	DESIGN AND ANALYSIS OF HELICAL SPRING IN TWO - WHEELER SHOCK ABSORBER	Mr. Ravichandran .D	3	3	2	2	3	2	1	1	3	3	3	2	3	-	2	-
	18ME014	GOWTHAM S																		
	18ME015	GUNA T																		
	18ME021	JANASHWARAN V																		
2	18ME005	CHANDRAHARI.K.A	ANALYSIS AND RECYCLING OF WASTE WATER COLLECTED FROM AUTOMOBILE SERVICE STATION	Mr. Velliyangiri .B	2	3	3	2	2	3	3	2	3	2	2	3	-	2	-	-
	18ME030	MAHENDREN P																		
	18ME038	NIYAASAHAMED A																		
3	18ME022	JAWAHAR C	WASTE HEAT RECOVERY IN REFRIGRATION SYSTEM BY USING MOLTEN SALT AS PHASE CHANGE MATERIAL	Mr. Raj Kumar .R	2	2	2	2	2	2	3	2	3	2	2	2	-	2	-	-
	18ME034	MITHUN R																		
	18ME045	RUBALAN S																		
	18ME069	VIGNESH S																		



B NO.	REG. NO	STUDENT NAME	PROJECT TITLE	SUPERVISOR/ GUIDE	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PS01	PS02	PSO3	PS04
4	18ME002	ARIVANANDHAN R R	INVESTIGATION OF HEAT TRANSFER ENHANCEMENT IN THE RECTANGULAR GROVE WICK STRUCTURE HEAT PIPE WITH R134a AS WORKING FLUENT USING ANSYS FLUENT	Mr. Shanmugam .M	2	2	2	2	2	2	3	2	3	2	2	2	1	2	-	-
	18ME008	DHAMODHIRAN K																		
	18ME048	SANJAYKUMAR R																		
	18ME065	VASANTH R																		
5	18ME041	RAGHUL A	DESIGN AND FABRICATION OF FIRE EXTINGUISHER DRONE USING CO2 BALL AND SPRAYER	Mr. Muruganatham .S	3	2	3	3	3	3	3	2	3	3	2	3	3	-	2	-
	18ME042	RAJPRASATH B																		
	18ME051	SARANKUMAR.M																		
	18MEL25	KRISHNA PRASATH P																		
6	18ME047	SAKTHIVEL V	DESIGN AND FABRICATION OF DUAL PURPOSE WHEEL CHAIR	Dr. Senniagiri .N	2	3	3	2	2	2	3	2	3	3	2	2	2	-	2	-
	18ME057	SRINIVASAN P																		
	18ME060	SURYA S																		
	18ME061	TAMILKAVIN P																		



B NO.	REG. NO	STUDENT NAME	PROJECT TITLE	SUPERVISOR/ GUIDE	P01	P02	P03	P04	P05	P06	P07	P08	P09	P010	P011	P012	PS01	PS02	PS03	PS04
7	18ME004	BHARATH V	DESIGN AND FABRICATION OF PARALLEL CAR PARKING SYSTEM USING 5TH WHEEL (MOTORISED)	Mr. Mohamed Ajmal Mahasin .M	3	2	2	2	2	1	3	2	3	3	2	2	2	-	2	-
	18ME012	GOWTHAM P																		
	18ME025	KARTHIKEYAN E																		
	18ME031	MAHESWARAN N																		
8	18MEL05	ARJUN R	IMPROVING THE VOLTAGE AND AMPERE OF AN ALOE VERA BATTERY WITH SERIES AND PARALLEL CONNECTIONS	Mr. Omprakas .M.A	3	3	2	2	2	2	3	2	3	2	2	2	-	3	-	-
	18MEL07	ASSVIN RAAJKUMAAR D K																		
	18MEL15	GOWTHAM S																		
	18MEL17	KABIL V																		
9	18MEL02	ABILASH SHARMA N	DESIGN AND FABRICATION OF AUTOMATIC TYRE INFLATION AND DEFLATION SYSTEM	Mr. Loganathan .V.N	2	3	2	2	2	1	2	1	3	3	2	2	2	-	2	-
	18MEL19	KANNAN V																		
	18MEL23	KAVIN S																		
	18MEL41	PRASHANTH V P																		
10	18MEL26	LOGANATHAN R	EXPERIMENTAL INVESTIGATION OF HEAT TRANSFER RATE IN LITHIUM - ION BATTERY USING HEAT PIPE WITH FREON-R22 AS PHASE CHANGE MATERIALS(PC M)	Mr. Sugumar .M	2	2	1	2	2	2	2	2	3	2	2	3	-	2	-	-
	18MEL28	MEIVELAN C D																		
	18MEL29	MOHANRAJ R																		
	18MEL30	MUTHUKUMAR.L																		



B NO.	REG. NO	STUDENT NAME	PROJECT TITLE	SUPERVISOR/ GUIDE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02	PS03	PS04	
11	18MEL12	DHINESH KUMAR R	IoT-ENABLED DOOR OPENING AND CLOSING SYSTEM FOR MONITORING BODY TEMPERATURE AND FACE MASK DETECTION	Dr. Magibalan .S	2	1	2	3	3	2	2	2	3	2	2	2	2	-	2	-	
	18MEL24	KAVIRAJ.M																			
	18MEL27	MANOJ KUMAR S																			
	18MEL51	TAMILARASAN B																			
12	18ME063	THRISUL J	FABRICATION AND TESTING OF REINFORCED COMPOSITE MATERIAL USING SISAL AND JUTE FIBERS	Dr. Senniangiri .N	2	3	2	2	2	2	3	2	3	2	2	2	1	3	1	-	
	18MEL06	ARUNKUMAR N																			
	18MEL11	DHANAPAL. A																			
	18MEL18	KAMALAKANNAN K																			
13	18ME001	ANANDHU SAJI	DESIGN AND FABRICATION OF SOLAR POWERED AUTOMATED DRAIN SEWAGE CLEANER	Mr. Sengottaiyan .M	2	2	3	2	2	3	3	3	3	3	2	3	2	2	2	2	3
	18ME035	MONESHRAJ D																			
	18ME054	SOORAJ SURESH																			
	18ME070	VINOTHKUMAR D																			
14	18ME019	JAISIN RAJ J	DESIGN AND FABRICATION OF MULTIPURPOSE MACHINE FOR MINI FARM AGRICULTURE USING DC MOTOR	Dr. Ashok Kumar .B	2	2	3	2	2	1	2	2	3	3	2	2	2	-	2	-	
	18ME020	JANARTHANAN S																			
	18ME029	LAKSHMI NARAYANAN.M																			



B NO.	REG. NO	STUDENT NAME	PROJECT TITLE	SUPERVISOR/ GUIDE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02	PS03	PS04
15	18ME017	HARIHARAN S	DESIGN AND FABRICATION OF BATTERY ASSOCIATED LOW COST WEEDER MACHINE	Mr. Mohamed Ajmal Mahasin .M	2	2	3	2	2	1	2	2	3	3	2	2	2	-	2	-
	18ME026	KATHIRVEL N																		
	18ME056	SRI KARAN A V																		
16	18ME007	DEV M	DESIGN AND FABRICATION OF SEMI AUTOMATIC COCONUT HUSK REMOVER	Mr. Mohamed Ajmal Mahasin .M	2	2	3	2	2	2	2	2	3	3	2	2	2	2	3	-



B NO.	REG. NO	STUDENT NAME	PROJECT TITLE	SUPERVISOR/ GUIDE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02	PS03	PS04	
17	18ME044	ROHN JACOB ROY	Design and Fabrication of Wet Grinder with Extra Roller	Dr. Senniyangiri N	3	2	3	2	2	3	2	2	3	2	3	3	3	3	3	3	0
	18ME013	GOWTHAM.S																			
	18ME062	TAMILVASANTHAN.R																			
	18ME052	SATHIYA SEELAN MSK																			
18	18MEL20	KARTHICK M	The Experimental Investigation and Optimization of Machining Parameters of Conventional Lathe (Turning Operation)	Mr. Omprakas .M.A	2	3	1	2	3	2	2	1	3	2	2	2	1	1	2	0	
	18MEL32	NAVEEN PR																			
	18ME027	KAVIYARASU R																			
	18MEL13	DINESHKUMAR. V																			
19	18ME053	SHIVA VR	Investigation of CPU Life Span in Desktop by Recovering the Heat Using Heat Pipe Technology with R32 as Working Fluid	Mr. Shanmugam .M	3	3	2	3	2	3	3	1	3	2	2	2	3	3	3	3	1
	18ME055	SOWNDARRAJ V																			
	18ME071	VISHNU PRAKASH G																			
20	18MEL22	KARTHIKEYAN.S	Enhancing the Wear Resistance of EN24 Steel bt using Nano-Powder (SIO2) in SAE50 Engine oil	Mr. Ravichandran .D	2	3	2	3	3	1	2	1	3	2	2	2	1	2	1	0	
	18MEL54	VIKASH.R																			
	18MEL34	NIRMAL RAJ.P																			
21	18ME049	SANTHOSHKUMAR .S	Design and Fabrication of Pedal Operated Forklift: A Review	Dr.Easwaramoorthi M	2	3	3	2	2	3	3	2	3	2	1	2	1	3	3	0	
	18MEL52	TAMIL SELVAN . T																			
	18MEL40	PRASANTH.S																			
	18ME006	CLEMENT ANDREW.C																			
	18MEL10	DEVARAJ.G																			



B NO.	REG. NO	STUDENT NAME	PROJECT TITLE	SUPERVISOR/ GUIDE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02	PS03	PS04
22	18MEL36	NITHISH D	Design and Fabrication of Electric Three-Wheel Scooter for Disable Person	Dr. S. Magibalan	3	2	3	3	2	3	3	3	3	2	1	2	3	3	2	1
	18MEL42	RAGU C																		
	18MEL43	RAVEESHANKAR C																		
	18MEL46	SABARI V																		
23	18MEL03	ABINAYA.S	Experimental Investigation of Process Parameters on Material Removal Rate and Surface Roughness in Turning Operation (CNC)	Dr. M. Manikandan	2	3	1	2	3	2	2	1	3	2	2	2	1	1	2	0
	18MEL14	GOKUL.V																		
	18MEL55	VIVEKA.R																		
	18MEL56	YOGARAJ.M																		
24	18MEL04	AJITH KANNAN.K	Design and Fabrication of Petrol and Hybrid Vehicles	Mr. Velliyangiri .B	3	3	2	3	2	3	3	1	3	2	2	2	3	3	3	0
	18MEL09	CHANDARAMOWLI.N																		
	18MEL49	SRIDHAR.V																		
	18MEL50	SRINIVASAN.V																		
25	18ME009	ENIYAN G B	Design and Analysis of PMSM Motor in Skewing Process	Dr. Easwaramoorthi	2	3	2	2	3	2	2	1	3	2	2	1	3	2	2	0
	18ME016	HARI DHARANI K																		
	18ME040	PRAVEEN KUMAR B																		
	18ME059	SUGENESH.T																		
26	18ME011	GOKULA KRISHAN P	Experimental Analysis of Heat Transfer Enhancement in Double-pipe Heat Exchanger with Various Flow Configuration	Mr. Venkateshan.T	3	3	2	3	2	3	3	1	3	2	2	2	3	3	3	1
	18ME028	KISHORE S																		
	18ME050	SARAN SANJAY R																		
	18ME064	VARUN KESHAV M																		



B NO.	REG. NO	STUDENT NAME	PROJECT TITLE	SUPERVISOR/ GUIDE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02	PSO3	PS04
27	18ME037	MUKESH KUMAR K V	Production of Construction Materials using Plastic Wastes	Mr. Balakirshnan.K	2	3	3	2	2	3	2	3	3	2	2	3	1	3	3	1
	18ME067	VIGNESH A																		
	18ME068	VIGNESH A																		
	18MEL39	PRASHANT K																		
28	18ME023	KARTHEESWARAN M	Fabrication of Automatic Air Bag Alternative System	Dr. Ashok Kumar .B	3	1	3	3	1	2	3	2	3	2	2	3	1	2	3	1
	18ME043	RAVUTHA RAHUL PK																		
	18ME010	GOKUL.R																		
	18ME018	HARRY DAVIS S																		
29	18MEL01	ABHINANDHAN.S	Development of Waste Segregation and Handling Mechanism:	Mr. Eswaran .S	2	3	3	2	2	3	2	3	3	2	2	3	1	3	3	2
	18MEL21	KARTHIKEYAN.S																		
	18MEL44	RISWAN AHMED.P.H																		
	18MEL48	SENTHIL KUMAR.P																		
30	18MEL31	NANTHA KISHORE A	Developing Concrete Material from Waste Plastic	Mr. Sengottaiyan .M	2	3	3	2	2	3	2	3	3	2	2	3	1	3	3	1
	18MEL33	NAVEEN KUMAR N																		
	18MEL35	NITHESH K.P																		
	18MEL45	RUBAN A																		



B NO.	REG. NO	STUDENT NAME	PROJECT TITLE	SUPERVISOR/ GUIDE	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PS01	PS02	PSO3	PS04
31	18ME036	MONISHA K	Study on Lanthanum Strontium with Period 4 Elements as a Cathode Material for SOFC	Dr. M. Easwaramoorthi	2	3	2	2	3	2	2	1	3	2	2	1	3	2	2	0
32	18ME039	PANDIARAJ S T	Review of Frictionless Braking System	Dr. M. Easwaramoorthi	2	3	2	2	3	2	2	1	3	2	2	1	3	2	2	0
	18ME033	MANOJ M																		



2.2.3. C Project related to Industry

The following are the industry related projects completed by the final year students as given below:

- Design and Fabrication of Pedal Operated Forklift:
- Design and Analysis of PMSM Motor in Skewing Process
- Development of Waste Segregation and Handling Mechanism
- Production of Construction Materials using Plastic Wastes
- IoT- enabled door opening and closing system for monitoring body temperature and face mask detection

2.2.3. D Process for monitoring and assessing individual and team performance

Reviews are conducted to assess the individual and team performance of the students. Various attributes to be evaluated in each review is presented in Table 2.2.3a.

Table 2.2.3a Attributes to be evaluated in each review

Project Work	
Zero-th review	Title, methodology, progress of literature review/field survey and timeline for indication various stages of project. Fine tuning the title of the project, methodology based on the inputs of project committee.
First review	Ensuring the completion of literature review, statement of problem, readiness status of experimental setup/availability of facilities at industry and proposed tools/technology to be used in the project.
Second review	Completion status of the project, Demonstration of project, Results, draft copy of project report, action plan for the publications

B.E., Mechanical Engineering programme has project work-1 and project work-2 in the curriculum at 7th and 8th semesters so as to provide experience to the students on doing projects. The evaluation and mark distribution for different stages phases of projects are present below.

Table B.2.2.3b Project Work I Evaluation Pattern

Project Work I (Marks: 100)					
Project work I will be evaluated by continuous assessment and end semester assessment					
Continuous Assessment - 50 Marks				End Semester Assessment - 50 Marks	
	Zeroth Review	Review 1	Review 2	Internal Examiner	20
Guide	5	10	10	External Examiner	20
Committee	5	10	10	Report	10
Total	10	20	20	Total	50

Table B.2.2.3c Project Work II Evaluation Pattern

Project Work - II (Marks: 100)					
Project work II will be evaluated by continuous assessment and end semester assessment					
Continuous Assessment - 50 Marks				End Semester Assessment - 50 Marks	
	Guide	Committee	Total	Internal Examiner	40
0 th Review	5	5	10	External Examiner	40
1 st Review	10	10	20	Report	20
2 nd Review	10	10	20	Total	100
Total			50		

2.2.3 E Process to assess individual and team performance

The individual and team performance of students are assessed based on the rubrics as given below:

Table 2.2.3e Rubrics for Project Work Evaluation

Rubrics-4 (End semester exam)					
Internal Examiner (Max. marks: 20) + External Examiner (Max. marks: 20)					
	Excellent (5 Marks)	Good (4)	Average (3)	Satisfactory (2)	To be Improved (1)
(a) Study of existing Literature & Summary	Outstanding investigation of literature and well summarized	Good investigation of literature and conclusions are not appropriate	Moderate study of the existing literature & conclusions are not appropriate	Minimal referencing of the existing literature & conclusions are not appropriate	Investigation of literature is not satisfactory and not summarized and concluded
(b) Problem statement	Detailed and extensive Problem statement	Problem and its implications well understood and described	Problem and its implications are specified but detailing is not done	Problem and its implications understood but not well described or presented.	Problem is not specified properly
(c) Objectives & Methodology of the Proposed project	All objectives of the proposed work are well defined and appropriate design methodology	Good justification to the objectives; Methodology to be followed is specified but detailing is not done	Only some objectives of the proposed work are defined; Methodology is not properly justified	Only some objectives of the proposed work are defined; Methodology is not properly defined	Incomplete definition of objectives. Methodology not defined properly
(d) Demonstration and Presentation	Excellent planned and executed presentation leaving the listeners in no doubt	Quality presentation and demo. Clear and concise description leaving listeners with sound understanding of literature and problems	Contents of presentations are appropriate but not well delivered	Contents of presentations are appropriate but not well arranged	Contents of presentations are not appropriate and not well delivered.

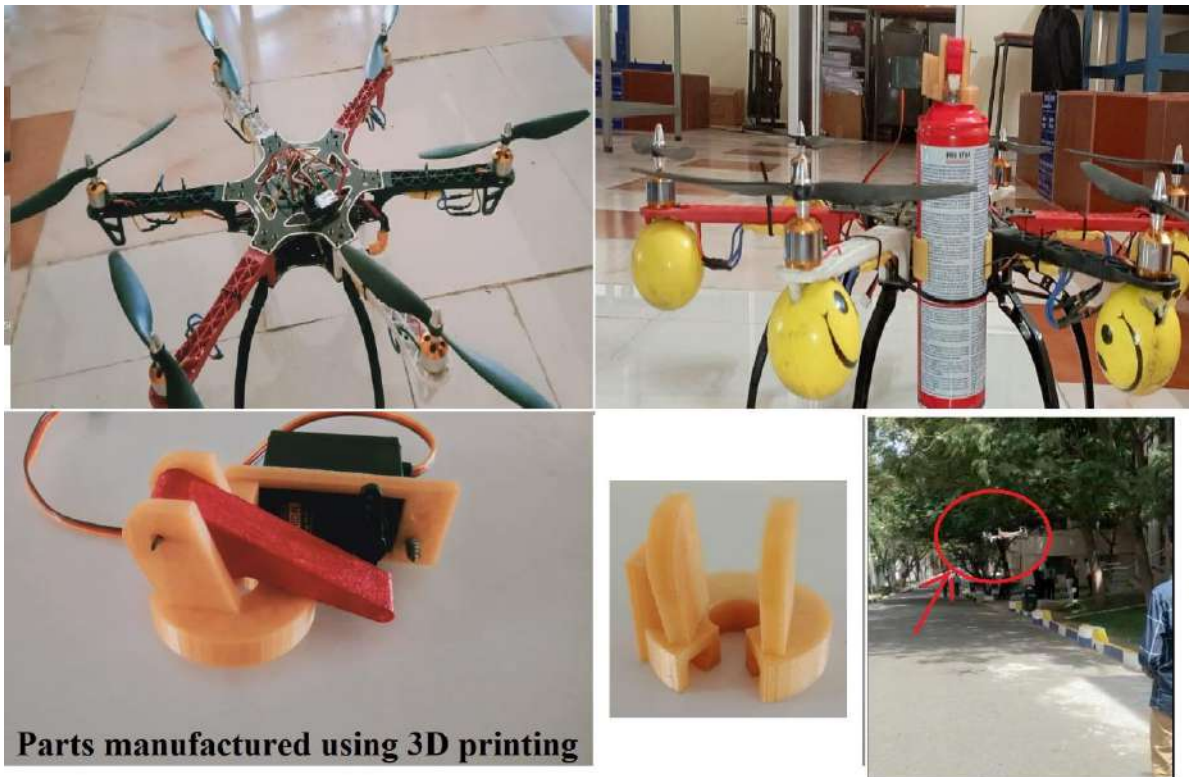
Report (Max. marks: 10)				
	Level of Achievement			
	Excellent (3 Marks)	Good (2)	Average (1)	
(a) Organization & Clarity	According to the specified format with excellent clarity	According to the specified format but some mistakes	Not prepared according to the specified format	
(b) Technical Content and Discussion	Excellent (4 Marks)	Good (3)	Average (2)	Needs improvement (1)
(c) Conclusion and Future Work	Excellent (3 Marks)	Good (2)	Average (1)	
	Well summarized and concluded. Future extensions are well specified	Summary and conclusion not very appropriate. Future extensions are specified	Not summarized and concluded. Future extensions are not specified	

2.2.3 F Completed Projects / Working Prototypes:

The completed projects / working prototype of the project has been shown in the figure below:



Figure.2.2.3f Sample of completed projects / working prototype (Pedal operated Forklift)



Parts manufactured using 3D printing

Figure.2.2.3f Sample of completed projects / working prototype

2.2.3 E Evidences of papers published / award received by project:

The sample journal completed projects / working prototype of the project has been shown in the figure below

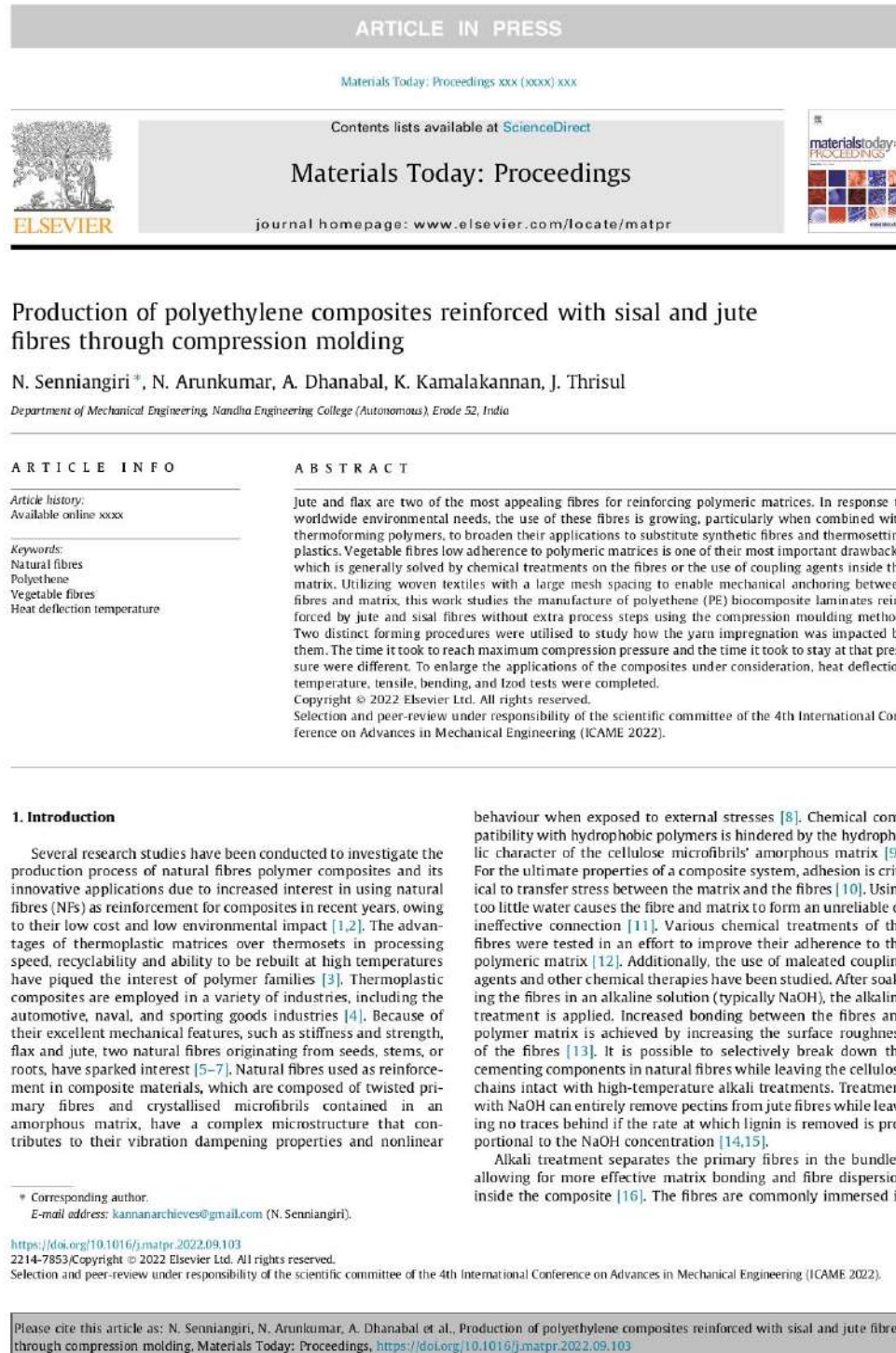


Figure.2.2.3g Sample of published journal paper



Developing Concrete Materials from Waste Plastics

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ABSTRACT

The goal of this research was to look into the possibility of fiber reinforced Recycled Aggregate Concrete made from Recycled PET Bottles Waste (RPET) and Recycled Woven Plastic Sack Waste (RWS) (RAC). Construction and Demolition Trash (CDW) and plastic waste are fast increasing in volume and becoming a nuisance for many countries. The current study aims to reduce the amount of solid waste as a good waste management solution while also protecting the environment. On the basis of mechanical characteristics and concrete durability, the effects of RWS and RPET fibers on RAC were assessed. In alkaline settings, the experimental results showed that RPET and RWS fibers have a good alkali resistance. The use of Silica Fume (SF) and RPET fiber increased compressive strength by 3.6–9% and tensile strength by 11.8–20.3 percent tensile strength of splitting. The post-cracking behaviour of RAC was improved using RWS and RPET fiber. RPET fiber contributed more to the enhancement of RAC characteristics than RWS fiber, despite the fact that RWS fiber has a higher tensile strength than RPET fiber.

Keywords Mechanical characteristics, Shear strength, Silica Fume, Recycled aggregate concrete (RAC), Recycled woven plastic sack fiber (RWS), Recycled PET bottle fiber (RPET)

1.Introduction

Due to the amazing growth of the building sector in recent decades, annual concrete demand has risen to almost 15 billion tones, requiring approximately 20 billion tones of aggregate. Rapid urbanization, infrastructure decommissioning, wars, natural disasters, and human activities have all resulted in large amounts of construction and demolition waste. The increased use of CDW has negative consequences for the environment. CDW is expected to account for roughly 40% of global trash (Silva et al., 2014), which is becoming a burden for many countries and posing waste management issues (Tam et al., 2015). As a result, recycling CDW as a new aggregate source for concrete (specifically, recycled concrete aggregate (RCA)) is becoming increasingly popular. Because of its viability, as well as its environmental and economic benefits, it has gotten a lot of attention. Thousands of studies have demonstrated the feasibility of recycling CDW into concrete products (Li et al., 2017a, 2017b; Xuan et al., 2017). Recycled Aggregate Concrete (RAC) has lower mechanical and durability qualities than Natural Aggregate Concrete (NAC) (Bravo et al., 2017; Ho et al., 2018). Adding admixture, increasing the amount of cement, employing fiber, removing attached mortar, and reinforcing adherent mortar are only a few of the techniques that have been devised to improve the quality of RAC. Many approaches improved the compressive strength of RAC, making it equivalent to NAC (Pepe et al., 2016; Silva, 2016). Despite the increase in compressive strength, RAC's tensile strength has remained relatively unchanged in contrast to compressive strength. This is one of the hindrances to applying RAC to construction structures. Furthermore, concrete is a brittle, low-tensile-strength material, and RAC is even more brittle than NAC (Cameiro et al., 2014). Steel fibers can be used as a reinforcement dispersed throughout the cementitious matrix to improve the tensile strength of concrete. Concrete fibers can effectively reduce fracture formation and improve brittle characteristics (Yin et al., 2015) some circumstances, utilizing fibers in RAC improves concrete's tensile strength, modulus of elasticity, and toughness while also strengthening it (Ahmadi et al., 2017) (Silva et al., 2005). Steel fiber, glass fiber, natural fiber, and synthetic fiber are the four basic types of fibers that can be used to reinforce concrete (Yin et al., 2015). Plastic fibers are synthetic fibers like PP, HDPE, PET, nylon, PE, PVC, PVA, or hybrid fiber (a mix of plastic fiber and steel fiber) that can be used to replace steel fiber. Plastic fibers can be either newly made or recycled. Plastic material use has expanded fast over the world, from roughly 1.5 million tonnes in 1950 to around 322 million tonnes in 2015. PET is the most frequently used plastic and is found in food bottles, containers, and packages. Around half a trillion bottles are tossed each year; a million bottles are discarded every minute around the world, and this number is expected to rise by 20% by 2021. Unfortunately, PET bottles are discarded at a higher rate than they are recycled. Furthermore, the usage of woven plastic sacks for packaging industrial products, food preservation and distribution, and other things such as rice, wheat, pulses, tea, coffee, beans, peanuts, sugar, cement, fertilizers, urea, plastic, polymers, plastic pellets, and other items has constantly expanded. Littering, unlawful landfilling, and incineration of plastic trash such as PET bottles and woven plastic bags progressively lead to major environmental problems (Sharma and Bansal, 2016). Recycling PET bottle waste and woven plastic sack waste as fiber in concrete is one way to reduce the amount of plastic waste. Because of its environmental benefits, the use of recycled PET bottle fiber (RPET fiber) in NAC has been intriguing. The use of PET fiber reinforcing concrete is a noteworthy contribution to environmental sustainability because PET bottles take more than 100 years to totally decompose (Silva et al., 2005). PET fibers in cement mortar were reported to be alkali resistant by Ochi et al. (2007).

Figure.2.2.3g Sample of published journal paper

2.2.4 Initiatives related to industry interaction**(10)****Self-Assessment (10)**

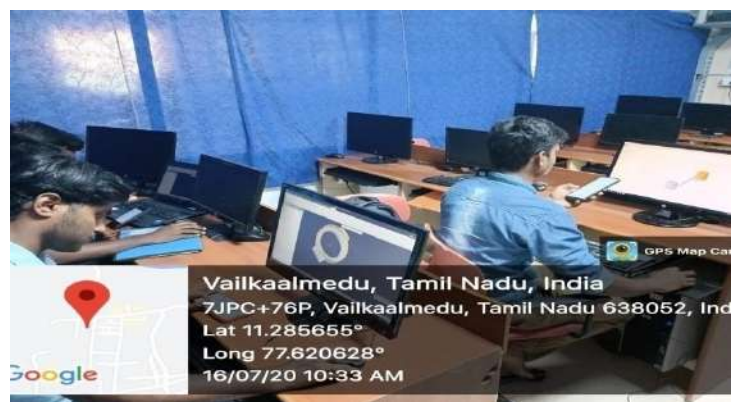
(Give details of the industry involvement in the program such as industry-attached laboratories, partial delivery of appropriate courses by industry experts etc. Mention the initiatives, implementation details and impact analysis)

2.2.4 A Industry Supported Laboratories:

The industry involvement in the program is vital for enhancing the learning level of students. Further, Industry involvement/interaction with the department is regarded as part of the curriculum as it gives students an insight into the real industrial practices and making him/her industry-ready. In order to provide opportunity for learning industrial practices and add value to the curriculum and syllabi, following industry sponsored laboratories are established.

- **Digital Product Design Laboratory:**

The Digital Product Design lab was established in collaboration with M/s SAN Engineering Solutions in 2017. The lab provides hands-on opportunities for students to work with Design software packages using industrial drawings. The lab also is used by students for doing projects.

**MoU Signed****Software training****FIGURE B.2.2.4a Digital Product Design Laboratory**

- **Renewable Energy Laboratory:**

Renewable Energy lab is one of the Industries sponsored lab established in collaboration with M/s Saran Solar Solutions in June 2019. The main objective of establishing the lab is to demonstrate the benefits of solar energy in solar thermal system for sustainable development. Further, The Centre aims to support the ambitious students to take up internships and projects on renewable energy.



MoU Signed

Training

FIGURE B.2.2.4a Renewable Energy Laboratory

2.2.4 B Industry involvement in the programme Design and Curriculum:

Industry experts are involved in the curriculum development through

- Department Advisory Board (DAB) as members
- Invited industry expert for providing feedback at the primary stage of curriculum and syllabi development
- Board of Studies - Experts from various Industries are representing as members of Board of Studies for approving the curriculum and syllabi of the programme
- Academic council - Experts from Industries are representing as members of Academic council to approve the curriculum and syllabi of the programme

Table: 2.2.4 B Involvement of Industry in program design and curriculum

Sl. No	Members	Representation	Representative as
1	Mr. Pradeep Chandrasekaran Associate Director - Vehicle Engineering, OLA Electric Technologies Pvt Ltd. Bengaluru	Member (Expert from Industry)	BoS Member
2	Mr. Karthikeyan Rajamanickam Dev Ops Engineer, Eleviant Tech. Coimbatore	Alumni	
3	Dr. V. S. Saravanan, Junior Vice president, Indo Shell Cast private Ltd Coimbatore	Industry Expert	DAB Member
4	Mr. J. Bharatkumar, Senior Executive, Product compliance analyst, Kohler Powers, Pune	Alumni	
5	Mr. N. Lakshminarasimhan, General Manager (Personnel & HR), Brakes India Private Ltd., Padi, Chennai – 600 050	Industry expert	Academic Council Member
6	Mr. N. Meyyappan, Founder and Managing Director, Top Freshers Technologies Private Limited, Poonamallee Road, Ramapuram, Chennai – 600 089	Industry expert	

Involving industry by signing Memorandum of Understanding (MoU)

- To provide an insight in the latest developments / requirements of the industries
- To provide an exposure to the students for getting a smooth transition from academic to work career
- To arrange Joint Seminars from field personalities and to share their knowledge with student
- To provide guest lecture(s), internship for the students on mutually agreeable terms and conditions with placement assistance.

Table B.2.2.4a Memorandum of Understanding (MoU) with Industries

S.No.	Date	Industry	Interacted Person	Events through MoU
1.	31.05.2019	M/S, Roots Industries India Ltd, R.K.G Industrial Estate, Ganapathy, Coimbatore- 641 006	Mr. Sampath kumar, AGM - Training	Faculty Training, Student One credit courses and Students Industry Project
2.	27.5.2019	M/S, The Creator Industries, 367,4/5, Kongalamman Nagar, Elavamalai, Erode – 638 316	Dr. K. Prabhu, Managing Director	Students Training
3.	2018-2019	M/S, Saran Solar solutions, Erode- 638 476	Mr. C. Baranikumar Managing Director	Students Project
4.	2018-2019	Centre of Excellence in Manufacturing Sciences, Coimbatore Institute of Technology (Autonomous), Coimbatore – 641 014	Dr. Rajesh Ranganathan Group Head – AIMMRG	Students Project
5.	2018-2019	M/S, Subavalar Industries, 1/23, KommakovilPudur road, Perundurai RS (PO), Perundurai – 638 052.	Mr. R. Sivakumar General Manager	Placement & Internship
6.	2018-2019 (open ended in nature)	M/S, LabTech Electronics Pvt. Ltd, 1/3, Periapancherry, Porur-Kundrathur Main Road, Chennai- 602 101	Mr. C. Selvakumar Managing Director	Nil
7.	2018-2019	M/S, Venbro Polymers, 304, Bhavani Road, Erode – 638 004	Mr. Venkateshwaran	Students Project
8.	24.09.2019	M/S, Jayam CNC CAD/CAM Design Technologies, No:17, Appadurai street, Padi, Chennai – 600 050	Mr. Rathinavel, Director	Nil

9.	28.08.2020	M/s Sustainable Communities India Private Limited (SCI)	Mr. Vivek Adhiya, Country Director, Institute for Sustainable Communities	Faculty Development Programme
10.	20.04.2021	SAN Engineering Solutions, Perundurai	Mr. V.S.Senthilkumar, Managing Director	Software training
11.	22.06.2021	AI Tech Park Sdn.Bhd. [ATP], Malaysia	Dr. Ram (Maram Venkata Ramana) Founder & Chief Executive Officer	Knowledge sharing between faculties about Research activities
12.	28.04.2022 (Renewed)	M/S, Jayam CNC CAD/CAM Design Technologies, No:17, Appadurai street, Padi, Chennai – 600 050	Mr. Rathinavel, Director	Nil



FIGURE B.2.2.4b MoU with Roots Industries India Ltd.



தமிழ்நாடு தமில்நாடு TAMIL NADU 90AA 298516
 P. S. சந்திரசேகரன், ச. இ. 27. 5. 2019
 Regd. No. 6-3645/79

MEMORANDUM OF UNDERSTANDING
 FOR ACADEMIC AND INDUSTRY COOPERATION
 BETWEEN
 THE DEPARTMENT OF MECHANICAL ENGINEERING
 NANDHA ENGINEERING COLLEGE
 AND
 M/S THE CREATOR INDUSTRIES

This Memorandum of Understanding (MoU) is entered into as of MAY 27, 2019 between the Dept. of Mechanical Engineering, Nandha Engineering College (Autonomous), Erode - 638052 and M/s The Creator Industries, 367, 4/5 Kongalamman Nagar, Erode - 638316 (Industry Partner).

The purpose of this Agreement is to promote the mutual interest in the fields of Research & Consultancy and Certification.

- To jointly organize workshops, seminars and conferences in the emerging areas of Mechanical Engineering
- To impart technical skills through employability enhancement programs to the students.

2.0 Types of Cooperation

Through this memorandum, both parties affirm the value of industrial collaboration and agree to promote the following activities:

- Joint research projects in fields of mutual interests
- Opportunities for students to
 - visit industry (short day visit)
 - undergo inplant training/internship
 - undertake projects
 - get placement assistance
- Opportunities for faculty members to visit industry and undergo training
- Consultancy works in fields of mutual interests
- Development of curriculum and syllabus
- Support for establishing laboratory at par with industry standards
- Organizing workshops/seminar/symposium/conference/Faculty Development programs
- Other activities as mutually agreed.

This agreement places no financial obligations or supplementary funding commitments on either party. Such activities will be defined through separate program agreements that detail the commitment of resources (financial or otherwise) required by the Institution and Industry. Subsequent program agreements must be approved in writing by the authorized representatives of both parties.

3.0 Terms

- At Nandha Engineering College (Autonomous), Erode - 638052, this MoU will be administered by Dr. N. Rengarajan, Principal (Institution Representative). At M/s The Creator Industries, 367, 4/5 Kongalamman Nagar, Elavamalai, Erode - 638316, this MoU will be administered by Dr. K. Prabu (Industry Partner).
- This Agreement will become effective upon the date of signature by both Parties. It shall remain valid for a period of three (3) years from the date of the last signature, with the understanding that it may be modified by written mutual consent of both Parties. This

agreement may be terminated by either Party with advance written notice of at least thirty (30) days. Upon notice of termination both M/s The Creator Industries and Nandha Engineering College agree to work in good faith to enable visiting students/staffs to complete their respective academic work/research unhindered by the termination. The agreement may be extended by mutual consent of the two Parties after the three-year period, and it must be renewed in writing.

- 3.3 This MoU may also involve parties by mutual consent, which may be added later by written addendum to this MoU.
- 3.4 The parties may enter into specific written agreements under authority of this MoU to clarify and define the nature, extent and terms of operation for the proposed collaborations, including intellectual property ownership and funding issues.
- 3.5 Jurisdiction: Any dispute or difference arising between the parties in operation/effect of this MoU or breach thereof shall be settled through arbitration in accordance with the relevant Arbitration Act in force at such time. The arbitration award shall be binding on both parties.
- 3.6 This Memorandum of Understanding completed in English is hereby signed in two (2) copies with one (1) copy remaining in the possession of each party.

Nandha Engineering College (Autonomous), Erode – 638052 Mobile No. 7373714707 deanmech@nandhaengg.org	M/s The Creator Industries, 367, 4/5 Kongalamman Nagar, Elavamalai, Erode – 638316 Mobile No. 9976314318 Mail ID: prabukbe@gmail.com
Institution Signed By Dr. N.Rengarajan, Principal Signature 	Industry Partner Signed By Dr. K. Prabu Managing Director Signature 
Date: 27.05.2019 Principal	Date: 27.05.2019
Official Stamp 	Official Stamp 
Witness:	
	
Dr. M. EASWARAMOORTHII Professor & Dean- Mechanical Engg. Nandha Engineering College, Erode	M. K. Murthi Professor & Head – Mechanical Engg. Nandha Engineering College, Erode

FIGURE B.2.2.4b MoU with The Creator Industries - Agreement



FIGURE B.2.2.4b Interaction with Students by Roots Industries India Ltd.

2.2.4 C Industry involvement in partial delivery of the course

Industry experts are involved partially to deliver courses in the following models.

- **Partial delivery of lectures by visiting faculty / industry experts**

Industry experts are engaged as Visiting faculty to teach specialized topics in the courses and the details are given below.

Table B 2.2.4 c Visiting faculty details (2021-2022)

S.No.	VISITING FACULTY NAME	DOMAIN	HOURS
1	Sree Takshin N, CEO & Cofounder, Learner Choice, Tiruppur.	Additive Manufacturing	52 Hrs

2	Venkatesan Uthamarajan Founder & Project Manager, SAN Engineering Solutions, Perundurai.	Design	52 Hrs
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Visiting faculty details (2020-2021)

S.No.	VISITING/ADJUNCT FACULTY NAME	DOMAIN	HOURS
1	Dr.S, Rajkumar Vice President (Operation), Rane Engine Valve Ltd., Chennai.	Manufacturing	52 Hrs
2	Mr.V.Frederick Emanuel Design Engineer, Onward Technologies Banagalore.	Design	52 Hrs

Visiting faculty details (2019-2020)

S.No.	VISITING/ADJUNCT FACULTY NAME	DOMAIN	HOURS
1	Mr.N. Sampathkumar Head Training and Development Roots Industries India Limited, Coimbatore.	Quality and Industrial Engineering	52 Hrs
2	Dr.K.Eswaramurthi Manger, ZF Wind Power Limited, Coimbatore.	Design of Production	52 Hrs

- **One Credit Courses**

As per the institutional regulation, students can also opt for one credit industry oriented courses for a minimum of 15 hours duration, which will be offered by experts from industry on specialized topics apart from the prescribed courses of study of the programme. Students can complete such one credit courses during the third to seventh semesters as and when these courses are offered by the department. There is no limit on the number of one credit courses a student can register and successfully complete during the above period. Student can claim course exemption equivalent to the credits earned.

The one credit courses offered by the industry are shown in Table B.2.2.4c

Table B.2.2.4c List of One Credit Courses Conducted

ACADEMIC YEAR 2021-2022			
S. No.	DATE	TITLE	Details of Industry
1	18/12/2021 & 19/12/2021	17MEI02 - Geometric Dimensioning & Tolerancing	Faurecia Interior Systems, Chennai
2	09/04/2022 & 10/04/2022	17MEI06 - Industrial Automation & Control (SCADA & HMI)	Axis Global Institute of Industrial Training (AGIIT), Coimbatore
3	14/05/2022 & 15/05/2022	17MEI07 - Numerical Modeling of Physical Systems in the Virtual Domain using CFD	Sigma Engineering Services(SES), Coimbatore
4	11/06/2022 & 12/06/2022	17MEI08 - Advanced Industrial Automation & Robotics	Axis Global Institute of Industrial Training (AGIIT), Coimbatore

ACADEMIC YEAR 2020-2021			
S.No.	DATE	TITLE	Details of Industry
1	08.04.2021 & 09.04.2021	17MEI03 - Lean Manufacturing with 5S & Kaizen	ROOTS Industries India Limited Coimbatore-641017.
2	15.04.2021 & 16.04.2021	17MEI05 - Statistical Process Control	ROOTS Industries India Limited Coimbatore-641017.
3	21,22 & 23.01.2021	17MEI02 - Geometric Dimensioning and Tolerancing	ROOTS Industries India Limited Coimbatore-641017.

4	24,25 & 26.11.2020	17MEIO5 - Statistical Process Control	ROOTS Industries India Limited Coimbatore-641017.
5	22,25, 26.11.2020	17MEIO4 - Press Tool Design and construction for sheet Metal	Standard Enterprises, Madurai.

ACADEMIC YEAR 2019-2020			
S.No.	DATE	TITLE	Details of Industry
1	15,.02.2020, 22.02.2020 & 29.02.2020	17MEIO3 - Lean Manufacturing with 5S & Kaizen	ROOTS Industries India Limited Coimbatore-641017.
2	12.08.2019, 11.09.2019 &14.09.201 9	17MEIO5 - Statistical Process Control	ROOTS Industries India Limited Coimbatore-641017.
3	10.08.19 & 23.08.19	17MEIO2 - Geometric Dimensioning & Tolerancing	ROOTS Industries India Limited Coimbatore-641017.

ACADEMIC YEAR 2018-2019			
S.No	DATE	TITLE	Details of Industry
1	14.07.18, 28.07.18 & 11.08.18	15MEIO3 -Geometric Dimensioning and Tolerancing	ROOTS industries India Limited Coimbatore-641017.
2	08.09.2018 & 22.09.2018	15MEIO5 & STATISTICAL PROCESS CONTROL	Roots Industries India Limited, Coimbatore- 641017
3	23-03-2019 & 24-03-2019	15MEIO2 -INDUSTRIAL AUTOMATION USING PLC	Axis Global Institute of Industrial Training Coimbatore

- **Invited Lectures by industry experts**

Invited lectures are conducted to the students by inviting experts from core industries. These lectures result in lively discussion thus imparting current state of the art to the students and faculty members.

Table B.2.2.4c Invited Lectures by Industry Experts

S.No.	DATE	NAME OF THE EVENT	TITLE	RESOURCE PERSON
1	28.07.2017	Seminar	Dreams and Aspirations	Thiru. Santhosh Avvanvar, Chief Commercial Officer, QtPi Robotics, Bangalore.
2	28.07.2017	Seminar	Materials and Manufacturing Engineering for Aerospace Application	Dr.T. Ramprabhu, Deputy Director / Scientist, Defence R&D Organization, Bangalore.
3	30.12.2017	Seminar	Computer Aided Modelling (Creo 2.0)	Thiru V.S. Senthilkumar, Managing Director, Diagonal CADD, Perundurai.
4	06.02.2018	Workshop	Automobile	Ambal Training Institute And Team, Coimbatore.
5	16.03.2018	Workshop	Robotics Workshop	Rajasekaran D, Application Engineer Axis Global Automation, Coimbatore.
6	16.03.2018	Workshop	Non Destructive	Mr. Vigneswaran,

			Testing Workshop	Aurora Institute & Inspection Services and Team, Trichy.
7	16.03.2018	Workshop	Creo 2.0 Workshop	Progressive CADD, Erode.
8	16.03.2018	Workshop	3D Printing Workshop	Thiru V.S. Senthil Kumar, Managing Director, Diagonal CADD, Perundurai.
9	3.02.2020	Seminar	Product design	Mr. SYED MOIZ Managing Partner, Pioneer Design & Engineering Pvt Ltd Coimbatore.
10	29.05.2021	Seminar	Industry Ready Engineers: Road Map for Skill Sets with industry perspective	Mr. Ferderick Emmanuel, Design Engineer, Onward Technologies, Bangalore.
11	18.12.2021	Seminar	Industrial Air Pollution and control methods	Mr.P. Kumar, Head - Environmental Dept., JSW Steels Ltd., Salem.
12	3.1.2022	Seminar	3D printing applications in automobile component	Mr Charath Chander Natarajan, Co Founder - MaxCADD, Founder - The Thing Company, Erode.

- **Other initiatives for industry involvement**

- ✓ The Department organizes value added courses on recent trends and technologies for the students every semester. These courses are delivered by experts from industries.
- ✓ Collecting feedback about curriculum from the Industry persons when they visit college

for recruiting students for Placement, invited guest for functions and delivering guest lectures. (TAFE, Ashok Leyland, RANE Engine Valves, Roots industries, etc.)

- ✓ Experts from industries are invited to deliver guest lecture to the students through workshops, seminars, conferences, etc.
- ✓ In every semester at least 3 to 5 alumni from different industries are invited to motivate the students and make them aware of the current trends in industries.
- ✓ Guest lectures are conducted regularly through association and professional bodies like ISTE, IET and SAEINDIA for the benefit of the students. The lecture addresses the emerging topics of the programme.
- ✓ MoUs have been signed with industries like Roots Industries, SAN Engineering Solutions, Saran solar Solutions, Venbro Polymers, etc., in order to enrich the opportunities for collaboration between industry and institute.

2.2.4 D Initiatives, Implementation and Impact Analysis related to Industry Interaction

Table B.2.2.4D Initiatives, Implementation and Impact Analysis related to Industry Interaction

S. No.	Initiatives	Implementation	Impact Analysis
1.	Industry Supported Laboratories	Digital Product Design Lab and Renewable Energy lab are established in collaboration with industries.	<ul style="list-style-type: none"> - Provides support in terms of sharing industrial drawings, industrial version of CAD packages - Sharing their (industry) experts to train students to practice industrial drawings with employability skill improvement perspective.

2	Industry experts in DAB, BoS, Academic council & Governing Body	Industry experts are included as members and invited to provide feedback periodically for curriculum and syllabi during DAB, BoS and Academic council meetings.	<ul style="list-style-type: none"> - Improved contents of curriculum and syllabi - The addition of industry relevant courses in the curriculum / syllabi enabled the students to gain knowledge in the latest topics
3	Memorandum of Understanding (MoU)	MoU is signed between the industries with mutual benefits by sharing knowledge, consultancy, student's internship, in- plant training, teaching collaboration, research & development and publications.	<ul style="list-style-type: none"> - Training for students and faculty - Internship for students - Support in research projects - Consultancy work - Placements - Guest lectures
4	Industry based One Credit Course	Courses related to the recent trends are identified, included in the curriculum as one credit course and offered to the students by the experts from Industry.	<p>Students develop their skills and knowledge in a specialized topics recent trends and practices in industry.</p> <p>Students' confidence levels have been increased and are ready to face the core placements.</p>
5.	Consultancy	<p>Faculty approaches the industry in collecting the problems faced by them.</p> <p>Industry problems are solved collaboratively along with the students.</p>	<ul style="list-style-type: none"> - Students gain experience in solving industry problems - Interacting with industry officials improves student interpersonal skills - Student apply the fundamental design and analysis knowledge to solve the industry problems

6.	Industrial Visits	Faculty and Students visit the industries as a part of teaching and learning process.	<ul style="list-style-type: none"> - Industry visits help the students to relate their knowledge gained in classroom and laboratory - It helps them to understand the industrial practices.
7.	Industry Projects	Students are encouraged to take industry projects during their final year of study with an objective of involving students in the real time problems and providing solutions to the industry.	<ul style="list-style-type: none"> - Students gain expertise in solving industrial problems
8.	Faculty Industry Connect	It gives opportunity for faculty members to develop network with industries. So faculty members easily arrange Internship/ In- plant training, take Consultancy, invite industries for Placements, invite experts for Seminar/ Workshop/ handling One credit course/ contribute to curriculum development, etc.	<ul style="list-style-type: none"> - Students get opportunity to visit industry, take IPT and internships. - Department use the strength of industry experts for curriculum development and other activities to bridge the gap between industry and academia.
<p>Action Taken:</p> <ul style="list-style-type: none"> ➤ 13 students of Final year students were engaged in design software training and completed 100 hours of training. ➤ New courses have been introduced in the curriculum (list the course in R17) ➤ MoU has been signed with AI Tech Park Sdn.Bhd. [ATP], Malaysia as an initiative to share the knowledge on application of Artificial Intelligence in Mechanical stream. ➤ 4 One credit courses have been conducted during the last academic year. 			

2.2.5 Initiatives related to industry internship/summer training (10)**Self Assessment (10)**

(Mention the initiatives, implementation details and impact analysis)

2.2.5 A In-Plant Training and Industrial Visit

Students are asked to undergo in-plant training in various private and public sectors industries during the semester holidays, through which they will get to know about the process and tools that are used in those industries. They will experience the industry environment and get some adequate knowledge about the activities and team work involved in the industry. Further, Students are asked to go for at least two Industrial Visit every year, starting from the second year.

Table B.2.2.5a Number of students undergone In-plant Training in past five academic years

ACADEMIC YEAR	NO. OF COMPANIES	NO. OF STUDENTS		
		II YEAR	III YEAR	TOTAL
2021 - 22	22	42	42	84
2020 - 21	NIL	NIL	NIL	NIL
2019 - 20	6	8	2	10
2018 - 19	6	37	1	38
2017 - 18	63	195	91	286
2016 - 17	53	140	116	256



Sakthi Sugars Limited

Regd. Office & Factory : Sakthinagar - 638 315, Bhavani Taluk, Erode Dist., Tamilnadu.
Phone : (04256) 246241 - 246244, 246341 - 246344. Fax : 04256 - 246442
E-mail : hrdu1@sakthisugars.com

Admn/20/ 1407 /2022
27th August 2022

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr.GOWTHAM .M (Reg. No. 20ME006) SECOND YEAR, B.E., (MECHANICAL ENGINEERING) student of NANDHA ENGINEERING COLLEGE, ERODE DISTRICT, has undergone INPLANT TRAINING in our organization from 22.08.2022 to 27.08.2022 as a partial fulfillment of his course study.

During the above period, his conduct was found to be GOOD.

We wish all success in his future endeavors.

For SAKTHI SUGARS LIMITED




(N. MOHANKUMAR)
ASST. GENERAL MANAGER – HR & ADMN

Head Office : 180, Race Course Road, Post Box No. 3775, Coimbatore -641 018. Phone : 2221551, 95422 4322 222
Grams : *SUGARKING* Fax : 2220574, 5322488 E - mail : info@sakthisugars.com
Please visit us at : www.sakthisugars.com

Figure B.2.2.5a Sample Inplant Training Certificate



FIGURE B.2.2.5b Industrial Visit to Roots Industries India Ltd.

Table B.2.2.5b Number of students undergone Industrial visit in past five academic years

	Academic Year			
	2017-2018	2018-2019	2019-2020	2021 -2022
No. of Companies	5	5	3	2
No. of students undergone Industrial visit	559	346	285	180

Gmail - REQUEST FOR INDUSTRIAL VISIT - Reg.

https://mail.google.com/mail/u/1?ik=45a7e41d5f&view=pt&search=a...



MOHAMED AJMAL <sakmajmal@gmail.com>

REQUEST FOR INDUSTRIAL VISIT - Reg.

ANNA <anna@annagroup.net>
To: AJMAL MAHASIN <sakmajmal@gmail.com>

Tue, Jul 2, 2019 at 9:56 AM

Sir/Madam,

1. Permission granted to visit Our company on 12 July 19 at 10.00 TO 1230 HRS in batches.
2. Kindly abide with our rules and regulations inside the company premises.
3. *We are not charging any fee for Industrial visit.*

Thanks/Regards,

**Praveen Raj,
Manager (HR & Admin),
ANNA ALUMINIUM CO PVT LTD.
KIZHAKKAMBALAM, ALUVA, KERALA.
Phone : + 91 484 2680 700**

From: AJMAL MAHASIN
Sent: 01 July, 2019 3:56 PM
To: anna@annagroup.net
Subject: REQUEST FOR INDUSTRIAL VISIT - Reg.

Dear sir / madam,

Nandha Engineering College (Autonomous), Erode, Tamilnadu is in its 17th year of service to the student community with foresight and far reaching vision and it is recognized as one of the leading Engineering Colleges in TamilNadu.

Herewith i attached the requisition letter for the INDUSTRIAL VISIT for our Third year mechanical engineering students in your esteemed organization. Kindly find the attachment and do the needful.

Look forward for your positive reply.

--

With Regards,
M. MOHAMED AJMAL
Assistant Professor
Department of Mechanical Engineering
Nandha Engineering College (Autonomous)
Erode - 638 052.

FIGURE B.2.2.5c Approval letter for Industry Visit

2.2.5 B Industrial / Internship / Summer Training and Post training Assessment:

Students are encouraged to undergo Internship during the final year to acquire hands-on experience. Education provides skills but internships help students to furnish, enhance and apply their communication skills, leadership skills, problem-solving, and critical thinking. It allows the students to reflect on their professional aspects, demonstrate their potentiality, proficiency, and skills. It provides students to procure and experience work-life balance, assists in establishing professional networks and contacts.

- The Training and Placement cell takes steps to arrange internship opportunities for the final year students.
- In addition to this, faculty members approach different industries to get an opportunity for internship to the students.
- The alumni help the faculty members and students by providing the contact details and initiate the process of training. They also provide necessary guidelines and supports for getting the internships.

Table B.2.2.5c Number of students undergone internship in past five academic years

	Academic Year				
	2017-2018	2018-2019	2019-2020	2020 -2021	2021-2022
No. of students undergone internship	30	37	49	47	29

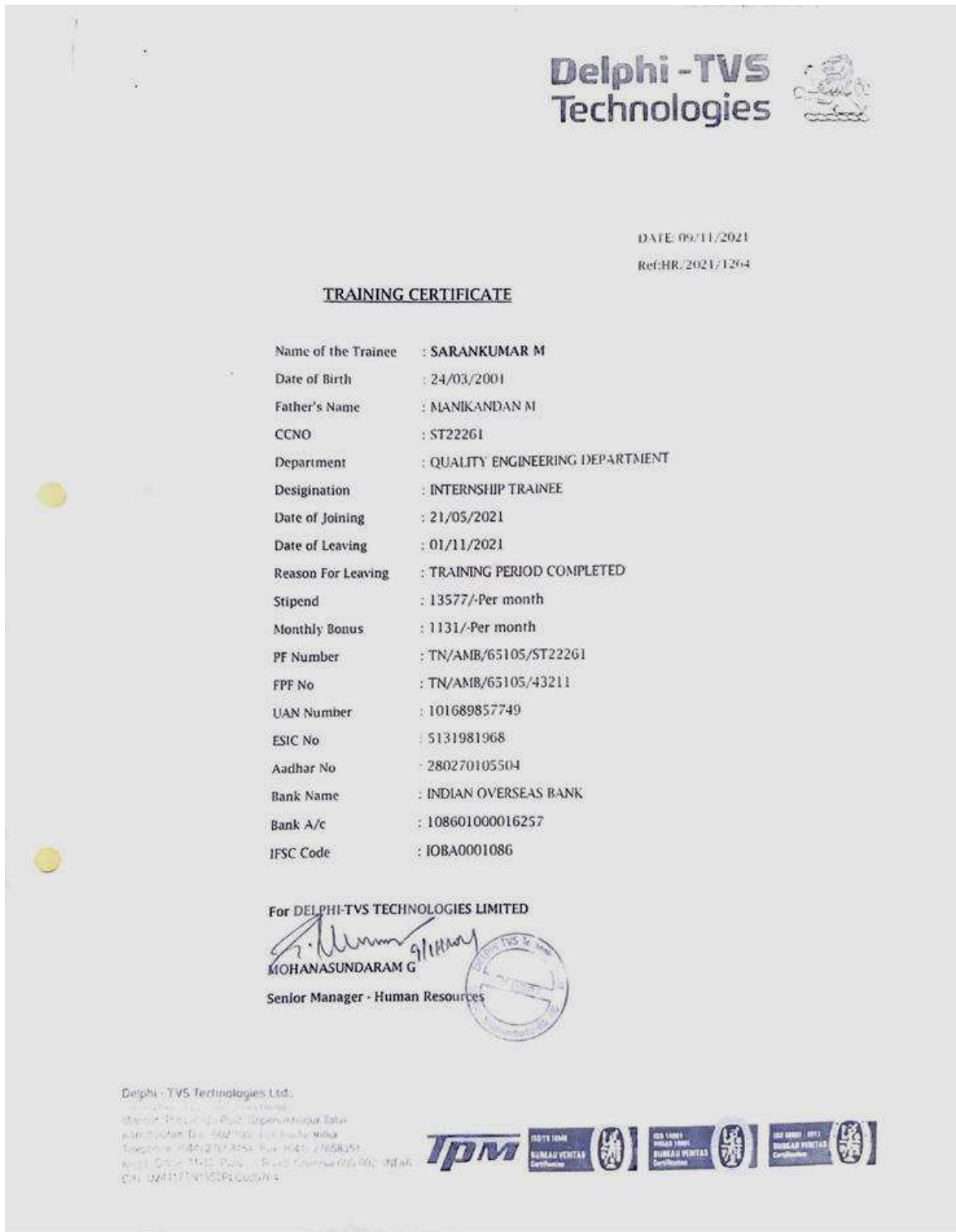



Figure B.2.2.5d Sample Internship Completion Certificate

POST TRAINING ASSESSMENT

Students who have undergone industrial/ internship/ summer training are evaluated based on their presentation. A sample copy of evaluation sheet is shown below:



NANDHA ENGINEERING COLLEGE, ERODE – 52
(Autonomous)
DEPARTMENT OF MECHANICAL ENGINEERING
INDUSTRIAL TRAINING EVALUATION FORM

(To be filled by faculty In-charge after successfully completion of Industrial Training)

Name of the Student : Rampalanth. K.
 Register Number of the Student : 16ME68
 Year of Study : IV-
 Name of the Industry : Delphi TVS, Chennai
 Training Period : 02/12/2019 to 07/01/2020

Please rate (✓) the Students in the following areas:

S.No	Contents	Excellent	Good	Satisfactory	Poor	Not Evaluated	Remarks / Suggestions for improvements
1	Demonstrate the knowledge and understanding of Engineering Principles.		✓				
2	Demonstrate the practical application of Engineering knowledge and Expertise		✓				
3	Able to undertake problem identification, formulation and solution			✓			Need to understand the Current Global requirements
4	Able to systematically approach design and/or evaluate operational performance		✓				
5	Able to use principles of design for sustainable development		✓				
6	Professionalism (Attitude, Attendance/punctuality)	✓					
7	Have an appropriate communication and interpersonal skills			✓			Advice to develop the communication by the practice
8	Display initiative, responsibility and leadership skills to function effectively as an individual, in a team based environment		✓				
9	As a future engineer, how does the candidate relate to the social, cultural, global and environmental responsibilities of an Engineer		✓				
10	Capacity of Life-long learning (Independent research/learning, critical analysis)		✓				
11	Hands on skills	✓					

Overall performance of trainee: He has a Capable to demonstrate the basic Principles of Engineering/Industry Components after the Completing Intern.

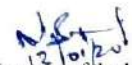

 Signature of the In-charge

Figure B.2.2.5e Sample Internship Completion Certificate

2.2.5 C Impact Analysis of Industrial Training

**Table B.2.2.5b Initiatives, Implementation and Impact Analysis related to Industry
Internship/Summer Training**

S. No.	Initiatives	Implementation	Impact Analysis
1.	Industry Internship	Training & Placement Cell identifies the industries, suitable for Mechanical Engineering students and approach them to allow our students for internship/summer training. Industrial training is made part of program curriculum and have due credit weightage.	<ul style="list-style-type: none"> - Number of Industry projects is improved. - The students who go for such internships exhibit enhanced skills, do related project and invariably find employment in similar industries. - Many number of students got placement in the same company in which they undergone internship.
2.	Summer Training	Students are encouraged to undergo in-plant training in the semester vacation to update their knowledge in latest technologies.	<ul style="list-style-type: none"> - Gain Valuable Work Experience - Transition into a Job - Networking Opportunities - Application of Classroom Knowledge - Gain Confidence
3	Faculty training at Industry	Faculty members undergo training for duration of 2 to 3 days.	<ul style="list-style-type: none"> - Faculty members gain knowledge related to industrial practices and share their knowledge in the classroom. Knowledge gained will be useful while developing curriculum and syllabi

Student Feedback on Initiative

Student’s feedback is obtained after completing industrial training to understand the real satisfaction and expectation of students. A sample copy of the student-feedback regarding industry training has been shown below:



NANDHA ENGINEERING COLLEGE, ERODE – 52
(Autonomous)
DEPARTMENT OF MECHANICAL ENGINEERING
STUDENT FEEDBACK ON INITIATIVE /
STUDENT FEEDBACK ON INDUSTRIAL TRAINING

Name of the Student : K. Ramprasanth
Register Number of the Student : 16ME108
Year of Study : IV [Final year]
Name of the Industry : Delphi TVs Chennai
Training Period : 2.12.2019 to 7.1.2020

S.No	Contents	Strongly Agree	Agree	Disagree	No Opinion
1	Allowed me to apply classroom theory to practice		✓		
2	Helped me to develop my problem- solving and decision-making skills.	✓			
3	Expanded my knowledge about the industrial practices and derive a plan for my future employment		✓		
4	Given me the opportunity to explore a career field and set my career goals		✓		
5	Helped me develop new interests and abilities		✓		
6	Given me a chance to plan my project	✓			
7	Provided a chance to use leadership skills (influence others, develop ideas with others, stimulate decision- making and action)		✓		
8	Helped me discover new aspects of myself that I didn't know existed before.		✓		
9	Made it possible for me to be more confident in new situations		✓		
10	Helped me learn to handle responsibility and use my time wisely	✓			
11	Provided me with contacts which may lead to future employment		✓		
	Considering your overall experience, how would you rate this industry experience? (Circle one).	Satisfactory	Good	Excellent	
	Remarks / suggestions for improving industry interaction in future based on your experience Industrial training was excellent and gained hands-on knowledge and training. I learnt industrial practices and management during my visit.				

Figure B.2.2.5f Sample Internship Completion Certificate

CRITERION 3

COURSE OUTCOMES AND PROGRAM OUTCOMES



CRITERION 3	Course Outcomes and Program Outcomes	175
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Self Assessment (150)

POs are statements that describe what the students should be able to do at the time of graduation from an engineering program. The list of POs for B.E., Mechanical Engineering is given below.

PROGRAMME OUTCOMES (POs):

At the end of a programme a students will be able to demonstrate ability to

PO1: **Engineering Knowledge:** an ability to apply knowledge of mathematics, science and engineering

PO2: **Problem Analysis:** an ability to design and conduct experiments, as well as to analyse and interpret data

PO3: **Design and Development of Solutions:** an ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, ethical, safety, manufacturability and sustainability

PO4: **Investigation of Complex Problems:** an ability to function on multidisciplinary teams to solve complex problems

PO5: **Modern Tool Usage:** an ability to use the techniques, skills and modern engineering tools necessary for engineering practice

PO6: **The Engineer and Society:** an ability to infer societal, health, safety, legal & cultural issues and consequent responsibilities relevant to the professional engineering practice

PO7: **Environment and Sustainability:** an ability to explain, compare and summarize the impact of engineering solutions for sustainable development with societal and environmental perspective

PO8: **Ethics:** an understanding of professional and ethical responsibility

PO9: **Individual and Team Work:** an ability to function effectively as an individual / team in different environments

PO10: **Communication:** an ability to communicate effectively

PO11: **Project Management and Finance:** an ability to apply knowledge of engineering and management principles to the



projects

PO12: **Lifelong Learning:** an ability to recognize the need for life-long learning

PSO:

The Program Specific Outcomes (PSOs) of B.E., Mechanical Engineering are

PSO1: Ability to design mechanical systems with required specifications using latest software packages

PSO2: Ability to identify sustainable materials and technologies for alternate engineered solutions

PSO3: Ability to apply the concepts and principles of manufacturing engineering to innovate and to create products and processes with sustainable manufacturing

PSO4: Ability to provide solution to challenges in the solar thermal systems.

3.1 Establish the correlation between the courses and the Program Outcomes (POs) & Program Specific Outcomes (25).

Self Assessment (25)

- NBA defined Program Outcomes as mentioned in Annexure I and Program Specific Outcomes as defined by the Program. Six to ten matrices of core courses are to be mentioned with at least one per semester.
- Select core courses to demonstrate the mapping/correlation with all POs and PSOs.
- Number of Outcomes for a Course is expected to be around 6.



3.1. A Evidence of Course outcomes being defined for every course (5)**3.1. B Availability of Course outcomes embedded in the syllabi (5)**

The evidence of course outcome for a course and availability of course outcome embedded in the syllabus are given below

17MEC04-ENGINEERINGTHERMODYNAMICS (Use of Steam Tables and Psychrometric Chart permitted)						
			L	T	P	C
			2	2	0	3
PREREQUISITE: NIL			QUESTIONPATTERN: TYPE -4			
COURSE OBJECTIVES ANDOUTCOMES:						
Course Objectives		Course Outcomes			Related Program Outcomes	
1.0	To teach the basic concept of thermodynamics and applications of first law of thermodynamics	1.1	Describe the concepts of conservation of mass, conservation of energy, work interaction, heat transfer and first law of thermodynamics	a, b, d, e, f, h, j, k, l		
2.0	To introduce the concept of second law of thermodynamics and entropy	2.1	Apply the concept of second law to analyze the performance of thermal equipments	a, c, e, f, k, l		
3.0	To teach steps involved in analysis of gas power cycles	3.1	Determine the performance characteristics of various gas power cycles	a, c, e, f, k, l		
4.0	To provide knowledge on the process of steam formation at various conditions	4.1	Demonstrate the stages in steam formation and/or analyze the properties of steam	a, c, e, f, h, k, l		
5.0	To impart the knowledge in Psychrometry and Psychrometric processes	5.1	Analyze the types of Psychrometric processes under various operating conditions	a, b, c, d, e, f, j, k, l		



UNIT I :BASIC CONCEPTS AND FIRSTLAW OF THERMODYNAMICS	(6+6)
Definitions - Thermodynamic systems - macroscopic and microscopic view - thermodynamic equilibrium - properties, state, process and cycle - point and path function - temperature - Zeroth law - reversible and Irreversible processes - energy, work and heat - internal energy - First Law - energy as a property of a system - PMM 1 - application of first law to closed system and steady Flow processes - applications of steady flow energy equation - steam turbine, centrifugal compressor, nozzle - limitations of first law	
UNITII :SECOND LAW OF THERMODYNAMICS AND ENTROPY	(6+6)
Second Law - performance of heat engines and reversed heat engines - reversible processes - statements of Second Law - PMM 2 - Clausius inequality - Carnot cycle - Carnot's theorem and corollary - efficiency of the reversible heat engine - entropy - entropy as a property of a system - entropy and irreversibility - change in entropy of the universe - entropy changes for a closed system and open system - Third Law of Thermodynamics	
UNITIII :GAS POWER CYCLES	(6+6)
Air standard efficiency - Carnot cycle - Otto cycle - Diesel cycle - dual combustion cycle - comparison of Otto, Diesel and dual combustion cycles - Brayton cycle - work ratio - pressure ratio for maximum work - calculation of air standard efficiency - mean effective pressure	
UNIT IV: PROPERTIES OF PURE SUBSTANCES	(6+6)
Pure substances - definition - phase change - p-T diagram - P-V-T surface - phase change terminologies - formation of steam - important terms - thermodynamic properties of steam and steam tables - external work done during evaporation - internal latent heat - internal energy of steam - Entropy of water, evaporation, wet steam, superheated steam - Mollier diagram - determination of dryness fraction of steam- working principles of tank, throttling, separating and throttling calorimeters	
UNIT V: PSYCHROMETRY	(6+6)
Concept of psychrometry and psychrometrices - definitions - psychrometric Relations - pressure, specific humidity, degree of saturation, relative humidity, enthalpy of moist air - Sling psychrometer - psychrometric charts - Psychrometric processes	
TOTAL(L:30 + T:30) = 60PERIODS	



TEXTBOOKS:

1. Michael A. Boles, Yunus A. Cengel, "Thermodynamics: An Engineering Approach", 8th ed., Tata McGraw - Hill Education, 2017
2. Rajput.R.K, "A Textbook of Engineering Thermodynamics", 5th ed., Laxmi Publications, 2016

REFERENCES:

1. Nag.P.K, "Engineering Thermodynamics", 5th ed., McGraw Hill Education, 2013
2. Arora.C.P, Thermodynamics, Tata McGraw - Hill Education, 2003
3. Moran, Shapiro, Boettner and Bailey "Principals of Engineering Thermodynamics", 8th ed., Wiley India Pvt Ltd-2015
4. Holman.J.P, "Thermodynamics", 10th ed., McGraw Hill Education, 2011
5. Rao.Y.V.C, "An Introduction to Thermodynamics", Revised Edition, Orient Longman, 2009

Mapping of COs and POs												
COs	POs											
	a	b	c	d	e	f	g	h	i	j	k	l
1	X	X		X	X	X		X		X	X	X
2	X		X		X	X					X	X
3	X		X		X	X					X	X
4	X		X		X	X		X			X	X
5	X	X	X	X	X	X				X	X	X



PROGRAM ARTICULATION MATRIX

3.1. C – Program Articulation Matrix Table (10)

Table B.3.1.a Correlation between the Courses and the Program Outcomes & Program Specific Outcomes

SEMESTER I																	
Course No.	Course Code & Course name	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C101	17EYA01 Professional English - I	-	-	-	-	-	1	1	1	2	3	-	3	-	-	-	-
C102	17MYB01 Calculus and Solid Geometry	3	2	-	1	2	1	2	1	-	1	2	2	-	-	-	-
C103	17PYB01 Physics for Engineers	-	2	2	1	-	1	1	-	-	1	2	1	-	2	-	-
C104	17CYB01 Applied Chemistry	3	-	-	-	-	-	-	-	3	-	3	3	-	2	-	2
C105	17MEC01 Engineering Graphics	2	-	3	2	3	-	-	-	3	-	3	3	2	2	2	1
C106	17ECC02 Basic Electrical, Electronics and Instrumentation Engineering	1	1	1	0	0	1	-	-	-	-	-	-	-	-	-	-
C107	17GYP01 Physics and Chemistry Laboratory	2	2	-	2	-	2	2	-	-	2	2	-	-	1	-	-
C108	17GYP02 Engineering Practice Laboratory	1	2	2	1	1	-	1	3	-	-	-	2	2	2	1	2



SEMESTER II																	
Course No.	Course Code & Course name	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C109	17EYA02 Professional English - II	-	-	-	-	-	1	2	2	1	2	-	1	-	-	-	-
C110	17MYB02 Complex Analysis and Laplace Transform	1	1	2	2	2	2	1	2	-	1	2	2	-	-	-	-
C111	17PYB03 Materials Physics	3	2	1	-	-	1	-	-	1	-	-	-	-	2	-	-
C112	17CYB03 Environmental Science	3	-	-	-	-	-	-	-	3	-	3	3	-	1	-	2
C113	17MEC02 Engineering Mechanics	3	2	3	3	-	-	-	-	-	3	-	3	1	2	3	-
C114	17CSC01 Problem Solving and Python Programming	3	2	3	-	-	-	-	-	-	2	2	-	2	-	-	-
C115	17MEP02 Computer Aided Modeling and Drafting Laboratory	2	2	-	2	-	1	-	-	2	-	2	2	2	2	1	-
C116	17CSP01 Problem Solving and Python Programming Laboratory	3	2	2	-	1	-	-	-	2	1	2	-	2	-	-	-



SEMESTER III																	
Course No.	Course Code & Course name	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C201	17MYB03 Fourier Series and Partial Differential Equations	3	2	1	-	-	-	1	-	-	-	-	-	-	-	-	-
C202	17MEC03 Materials Engineering and Technology	3	2	2	1	3	2	-	-	-	-	2	2	3	3	2	1
C203	17MEC04 Engineering Thermodynamics	3	2	3	3	3	1	-	1	-	1	2	2	3	2	3	2
C204	17MEC05 Fluid Mechanics and Machinery (Theory+Lab)	2	2	2	-	2	2	-	-	-	2	-	2	3	3	1	1
C205	17MEC06 Manufacturing Processes	3	2	2	2	2	2	-	2	-	2	2	1	3	2	2	2
C206	17MEP03 Manufacturing Processes Laboratory	2	3	2	2	2	2	-	2	-	2	2	2	3	1	2	
C207	17MEP04 Computer Aided Machine Drawing Laboratory	2	3	-	-	-	2	-	2	2	-	3	3	3	2	1	-



SEMESTER IV																	
Course No.	Course Code & Course name	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C208	17MYB06 Statistics and Numerical Methods	3	2	1	-	-	-	-	-	-	-	-	2	-	-	-	-
C209	17MEC08 Kinematics of Machinery (Theory + Lab)	3	3	3	2	-	-	2	-	-	1	2	2	1	1	2	-
C210	17MEC09 Thermal Engineering Systems	3	2	3	3	3	1	-	1	-	1	2	2	3	2	3	2
C211	17MEC10 Subtractive Manufacturing Processes	3	-	-	-	2	-	-	2	-	-	2	2	3	2	1	2
C212	17MEC11 Strength of Materials (Theory + Lab)	2	3	3	3	3	2	-	-	-	-	2	1	2	2	3	-
C213	17MEX20 Welding Engineering	3	2	1	2	2	-	2	1	-	1	1	2	2	3	2	-
C214	17MEP05 Thermal Engineering Systems Laboratory	3	3	2	1	-	3	1	3	3	-	3	3	3	2	3	3
C215	17MEP06 Subtractive Manufacturing Processes Laboratory	2	2	-	-	2	-	-	2	-	-	2	2	2	2	2	-



SEMESTER V																	
Course No.	Course Code & Course name	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C301	17MEC13 Design of Machine Elements	3	2	2	3	3	2	-	-	-	-	3	2	3	2	2	1
C302	17MEC14 Heat and Mass Transfer (Theory + Lab)	3	2	-	-	-	1	-	1	-	1	2	2	3	2	3	2
C303	17MEC15 Dynamics of Machinery	2	2	-	-	2	2	3	-	-	-	2	2	1	2	3	2
C304	17MEC16 Fluid Power System	3	2	2	2	2	-	-	1	1	1	1	2	3	2	1	
C305	17MEX04 Product Design	3	3	-	-	-	3	3	-	-	2	3	3	2	3	1	2
C306	17MEX32 Renewable Sources of Energy	2	-	-	-	2	-	-	-	-	-	2	2	-	-	-	2
C307	17MEP08 Dynamics of Machinery Laboratory	3	3	3	-	-	2	-	-	-	3	2	2	-	2	3	-



SEMESTER VI																	
Course No.	Course Code & Course name	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C308	17MEC17 Mechatronics	3	2	2	2	2	1	2	-	-	-	2	3	2	2	1	1
C309	17MEC18 Design of Transmission Systems	3	3	3	2	2	2	-	-	-	-	3	3	3	3	1	1
C310	17MEC19 Metrology and Measurements (Theory + Lab)	2	3	2	-	-	-	-	-	-	3	2	2	3	2	2	2
C311	17MEX16 Automobile Engineering	2	3	2	3	2	2	-	-	-	-	2	2	2	3	2	2
C312	17MEX21 Non Destructive Testing & Evaluation	3	2	1	2	2	-	1	1	1	1	1	2	3	2	1	-
C313	17MEP09 Mechatronics Laboratory	2	2	2	2	2	-	1	-	-	-	2	2	3	2	2	-



SEMESTER VII																	
Course No.	Course Code & Course name	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C401	17MEC20 CAD / CAM/CIM	2	2	2	2	-	2	2	-	-	-	2	2	1	2	1	-
C402	17MEC21 Finite Element Analysis	3	2	2	2	2	-	-	1	1	1	1	2	3	2	1	
C403	17MEC22 Power Plant Technology	3	-	-	-	2	-	2	-	-	-	2	2	2	1	2	2
C404	17GEA03 Total Quality Management	-	3	2	-	3	2	-	2	-	-	-	-	3	2	2	1
C405	17MEP10 CAD / CAM Laboratory	3	-	3	3	3	-	-	-	3	-	3	-	3	2	3	3
C406	17MEP11 Computer Aided Analysis Laboratory	3	3	3	2	3	-	-	-	2	2	2	2	3	2	2	1
C407	17MED01 Project Work - I	3	2	2	2	2	2	1	1	2	2	1	2	2	1	1	-

SEMESTER VIII																	
Course No.	Course Code & Course name	P01	P02	P03	P04	P05	P06	P07	P08	P09	P10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C408	17MEX26 New Venture Planning and Management	3	2	-	-	-	3	3	-	-	3	3	2	2	3	2	-
C409	17MED02 Project Work - II	3	2	2	2	2	2	1	1	3	2	2	2	1	1	1	2



COURSE ARTICULATION MATRIX

3.1. D – Course Articulation Matrix Tables:

The course outcome mapping is mapped with the program outcomes and program specific outcomes. That is 3- high, 2- moderate, 1 – low mapped with the respective course outcomes for the particular course. The following tables give the mapping for the Program Outcomes and Program Specific Outcomes with the corresponding Course Outcomes. (For sample from semester III to VIII, one course articulation matrix is given in the below tables)

Table B.3.1.b Mapping of CO's with PO's and PSO's

SEMESTER 3

CO/PO	STATEMENT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C205.1	Describe the principles of foundry and casting	2	-	2	3	1	3	-	2	-	-	-	-	2	3	2	1
C205.2	Demonstrate the concept of metal forming processes for various applications	3	1	-	-	2	3	-	2	-	3	2	3	3	3	2	-
C205.3	Select a metal joining process for various materials	2	-	2	-	1	3	-	-	-	-	3	2	3	2	2	1
C205.4	Explain the manufacturing processes under powder metallurgy and plastics	2	-	2	-	1	3	-	2	-	-	2	2	3	3	2	-
C205.5	Understand the manufacturing process for ceramics, glass and composite materials	3	2	2	2	2	3	-	2	-	3	2	3	3	3	2	-
C205 (17MEC06 - Manufacturing Processes)		2	2	2	3	1	3	-	2	-	3	2	3	3	3	2	1

SEMESTER 4

CO/PO	STATEMENT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C209.1	Demonstrate the working of various mechanisms	3	-	1	-	-	-	2	-	-	1	2	1	1	2	2	-
C209.2	Analyze the velocity and acceleration of linkages in mechanism design	3	3	3	-	-	-	2	-	-	1	3	2	-	1	2	-
C209.3	Select a layout of cam for specified motion in power transmission of machine elements	3	3	3	2	-	-	2	-	-	2	2	2	1	1	2	-
C209.4	Investigate the gear drives with their selection for transmission of mechanical power in machines	3	3	3	-	-	-	2	-	-	1	1	2	-	-	1	-



C209.5	Apply the concept of friction in various engineering applications like belt, clutch, brake etc.,	3	3	3	-	-	-	1	-	-	1	1	2	-	-	1	-
C209 (17MEC08 - Kinematics of Machinery)		3	3	3	2	-	-	2	-	-	1	2	2	1	1	2	-

SEMESTER 5

CO/PO	STATEMENT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C301.1	Estimate the stresses acting on various machine elements by considering the operating conditions	3	2	-	3	3	2	-	-	-	-	3	2	3	2	2	1
C301.2	Predict the variables stresses on the machine elements and/or design shafts for the given loading conditions	3	-	2	-	3	2	-	-	-	-	3	2	3	2	2	1
C301.3	Determine the maximum stresses acting on the temporary and/or permanent joints under static loads	3	-	2	-	2	2	-	-	-	-	3	3	3	3	2	1
C301.4	Adapt the design procedures to select couplings and/or springs	3	-	2	-	3	2	-	-	-	-	3	3	3	3	2	1
C301.5	Select a suitable type of bearing for the design requirements	3	2	2	3	3	2	-	-	-	-	3	2	3	2	2	1
C301 (17MEC13 Design of Machine Elements)		3	2	2	3	3	2	-	-	-	-	-	2	3	2	2	1

SEMESTER 6

CO/PO	STATEMENT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C312.1	Identify the design parameters of the Chain Drives and Belt Drives for power transmission	3	3	3	2	2	2	-	-	-	-	3	3	3	3	1	1
C312.2	Recommend the suitable Gear drive for an industrial application among spur and helical gears	3	3	3	2	2	2	-	-	-	-	3	3	3	3	1	1
C312.3	Design Bevel and Worm Gears by considering various operating conditions	3	3	3	2	2	2	-	-	-	-	3	3	3	3	1	1
C312.4	Select the Gear Box for variable operating speeds	3	3	3	2	2	2	-	-	-	-	3	3	3	3	1	1



C312.5	Design Clutches and Brakes for the automobiles	3	3	3	2	2	2	-	-	-	-	3	3	3	3	1	1
C312(17MEC18 Design of Transmission Systems)		3	3	3	2	2	2	-	-	-	-	3	3	3	3	1	1

SEMESTER 7

CO/PO	STATEMENT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C401.1	Explain various CAD models, stages in geometric modeling	2	-	3	2	-	2	-	-	-	-	-	2	1	2	1	-
C401.2	List the steps involved in 2D and 3D transformations in computer graphics	2	2	3	2	-	2	-	-	-	-	2		1	2	1	-
C401.3	Summarize the steps involved in Computer Aided Manufacturing and process planning	-	2	2	2	-	2	-	-	-	-	-	-	1	2	1	-
C401.4	Distinguish the NC, CNC & DNC systems and explain their working principles	2	-	2	2	-	2	2	-	-	-	2	-	1	2	1	-
C401.5	Describe the importance of Computer Integrated Manufacturing and stages in production planning	2	-	2	1	-	1	-	-	-	-	1	-	1	2	1	-
C401(17MEC20 CAD / CAM / CIM)		2	2	2	2	-	2	2	-	-	-	2	2	1	2	1	-

SEMESTER 8

CO/PO	STATEMENT	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C409.1	Explain the concept of entrepreneurship and functions of an entrepreneur	3	2	-	-	-	-	3	-	-	2	3	2	1		-	-
C409.2	Describe various theories of entrepreneurship	3	2	-	-	-	-	2	-	-	3	2	2	2	2	-	-
C409.3	Identify steps involved during new venture establishment and fund requirements	2	3	-	-	-	-	3	-	-	3	-	3	2	3	2	-
C409.4	Summarize the entrepreneurial behavioural aspects and types entrepreneurship development programmes	3	2	-	-	-	-	3	-	-	2	3	2	2	3	2	-
C409.5	Demonstrate the idea of Women and Rural entrepreneurship roles of entrepreneur	3	3	-	-	-	3	-	-	-	3	-	3	1	-	-	-



C409 (17MEX26 New Venture Planning and Management)	3	2	-	-	-	3	3	-	-	3	3	2	2	3	2	-
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Note: Enter correlation levels 1, 2 or 3 as defined below:

1: Slight (Low) 2: Moderate (Medium) 3: Substantial (High)

If there is no correlation, put “-”

1. Add more columns for PSOs
2. The table 3.1 can be prepared in landscape mode if required.

3.2 Attainment of Course Outcomes (75)

Self Assessment (65)

3.2.1 Describe the assessment tools and processes used to gather the data upon which the evaluation of Course Outcome is based (10)

3.2.1 A List of Assessment Processes (2)

1. Direct Assessment Tools

The Assessment of course outcome for theory subjects are based on

- **Continuous Assessment Tests**

This type of performance assessment is carried out during the examination sessions which are held thrice for a course in every semester. Each and every CAT is focused in attaining the course outcomes.

- **Assignments**

The assignment is a qualitative performance assessment tool designed to assess students' knowledge of engineering practices based on application oriented and problem solving.

- **Online Tests**

This type of performance assessment is carried out through web-based examination system where the online test is taken by multiple choice based which are held thrice in a semester. Each and every test is focused in attaining the course outcomes.



- **End Semester Examinations**

End Semester examination is a metric for assessing whether the COs are attained or not. Examination is more focused on attainment of course outcomes using a descriptive exam.

- **Assessment for Laboratory**

Laboratory class course outcomes are evaluated based on the student's performance in regular lab classes, Model Examination and End Semester Examination performance. The model exam assessment is carried out during the practical examination sessions which are held twice in every semester for each lab course. Each and every assessment is focused in attaining the course outcomes of lab courses.

- **Project review & presentation**

This type of performance assessment is carried out in the final year in project work phase I and phase II are evaluated based on the presentations in Project Reviews and End Semester Viva Voce Examinations.

Each and every review is focused in attaining the program outcomes.

2. Indirect Assessment Tools

- Course End Survey

3.2.1 B The Quality / Relevance of assessment processes and tools used (8)

1. Direct Assessment Tools

The approach in evaluating the attainment of CO is using existing data from students' marks. This method is chosen because of the information is readily available and it is common for most courses. In general, assessment methods used are grouped into 4 categories: (1) Continuous Assessment Tests (CAT) (2) Assignments (3) Online Tests (4) End Semester Examination (ESE). Each of these categories contributes a certain portion of the marks into some of the COs.

Direct CO Attainment = 60% Weightage of End Semester Examination + 30% of CAT + 5% of Assignment + 5% of Online test



2. Indirect Assessment Tools

Indirect assessment strategies are calculated from course end survey reports collected at the end of every semester.

After collection of individual survey forms, the marks for COs are calculated based on the following formula:

$$\text{CO attainment} = [\text{No. of Students Good} \times 3 + \text{No. of Students Satisfactory} \times 2 + \text{No. of Students Needs to improve} \times 1] / (\text{No. of Students} \times 3) \times 100$$

The above formula is used to calculate the marks for indirect COs of all the courses in the curriculum in the respective regulation.

Final Overall CO Attainment

Final CO attainment for each course is calculated based on the contribution of direct and indirect assessments as per the weightage given below:

1. Direct Assessment (80%)
2. Indirect Assessment (20%)

$$\text{Final CO attainment level} = (80\% \text{ Direct assessment} + 20\% \text{ Indirect assessment})$$



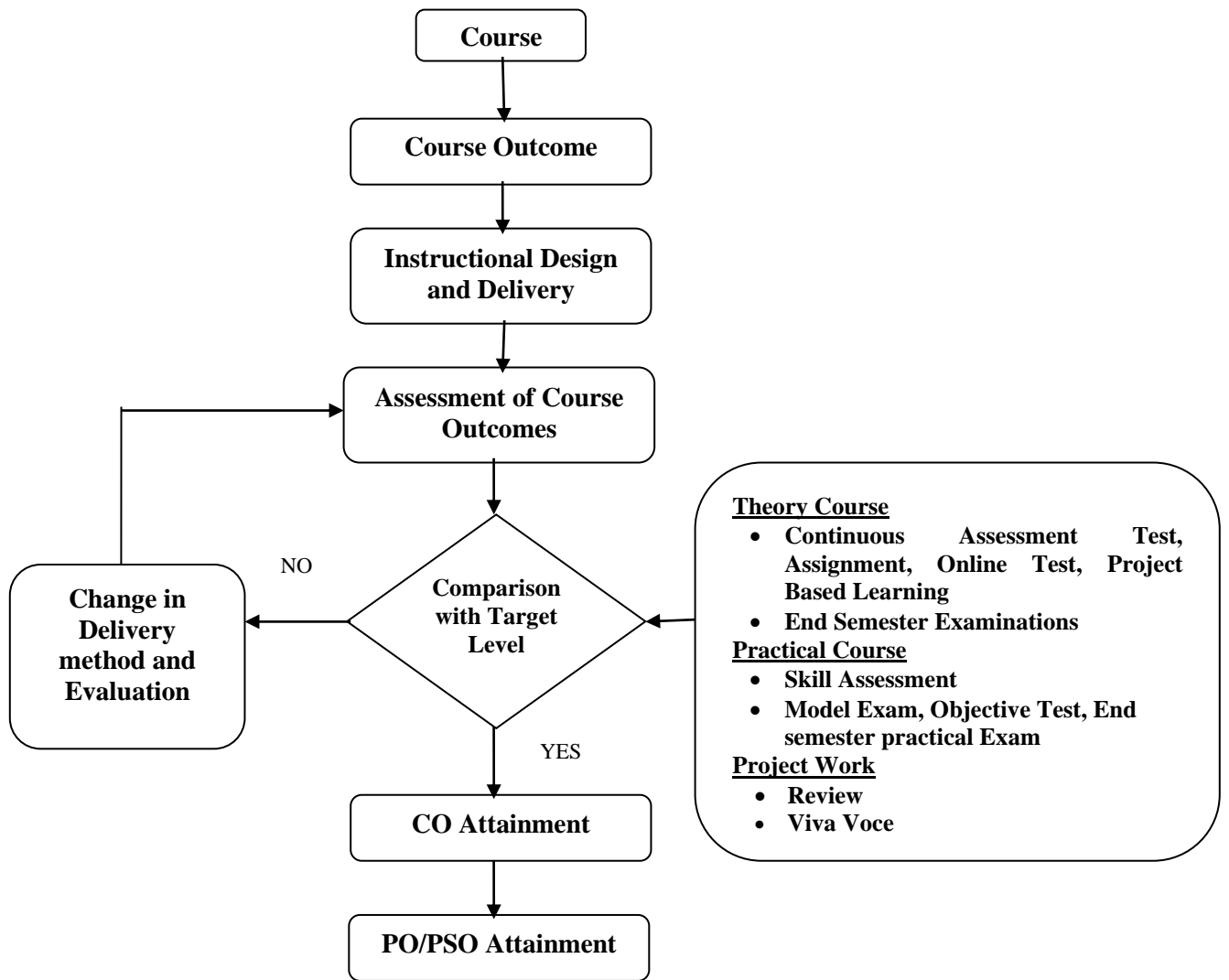


Figure 3.2.1.a Assessment method to assess the attainment of the Course Outcomes

Table B 3.2.1.a Ratio of Internal and End Semester Mark Split up for various Courses

S.No.	Category of Course	Internal Marks	End Semester Exam (ES) Marks	Total Marks
a.	Theory course	40	60	100
b.	Embedded course	40	60	100
c.	Laboratory courses /Project work	50	50	100
d.	Employability Enhancement courses (EEC), Mini project, Human excellence courses, constitution of India, etc.,	100	-	100

The following table B.3.2.1.b shows the internal and end semester assessment processes for Theory courses and Practical courses for Regulation 2017.

Table B 3.2.1.b Internal Assessment Process for Theory Courses for R17

S. No	Components for Continuous Assessment Marks	Syllabus Coverage for the test	Duration of the test in Hrs.	Marks (max.)
1	Continuous Assessment I	1- 2.5 units	1.5Hrs.	50 Marks is reduced to 15 $2 \times 15 = 30$
2	Continuous Assessment II / Project Based Learning Review	2.5 -5 units	1.5Hrs.	
4	Assignment I	1- 2.5 units	-	2.5
5	Assignment II	2.5 -5 units	-	2.5
6	Online Test I	1- 2.5 units	1	2.5
7	Online Test II	2.5 -5 units	1	2.5
TOTAL				40



Table B 3.2.1.c Internal Assessment Process for Laboratory Courses for R17

S. No.	Components for Internal Marks	Marks (max.)
1	Record Marks (Out of 100)	$\frac{\text{Record Marks} + \text{Model Exam Marks (I + II)}}{4}$
2	Model Exam I (Out of 50)	
3	Model Exam II (Out of 50)	
TOTAL		50

Table B 3.2.1.d Internal Assessment for Embedded Courses for R17

S.No.	Components for Continuous Assessment Marks	Syllabus Coverage for the test	Duration of the test in Hrs.	Marks (max.)
1	Continuous Assessment I	1- 2.5 units	1.5Hrs.	2 x 7.5 = 15
2	Continuous Assessment II	2.5 -5 units	1.5Hrs.	
5	Continuous assessment of all experiments	All Experiments	-	5
6	End Semester Exam for Lab	All Experiments	3Hrs	20
TOTAL				40

Table B 3.2.1.e Scheme of Assessment for Non-Embedded Courses for R17

S.No.	Course Type	Marks Breakup*										
		Continuous Assessment Components							End Semester Components			
		CAT 1	CAT 2	Other Assessments #	Average of marks for all Experiments & viva voce	Model exam / report	Zeroth Review	Review 1	Review 2	Written exam	Practical exam and Viva-voce	Capstone Project Report and Viva-voce, Project Outcome & Project Report
1	Theory	15 (50)	15 (50)	10	-					60 (100)		
2	Lab				40	10					50 (100)	
3	Project						10 (20)	20 (40)	20 (40)			50 (100)



*Mark weightage and maximum marks for the exam conducted (inside brackets). The maximum marks could vary depending on the credit component for lecture/ laboratory/ project.

Open book test; Online Test, Cooperative learning report, Assignment; Journal paper review, Group Presentation, Project report, Poster Presentation, Prototype or Product Demonstration, etc. (as applicable).

Table B 3.2.1.f Assessment Process for Theory Embedded Courses for R17

S.No.	Course Type	Mark Breakup*											
		Continuous Assessment Components							End Semester Components				
		CAT I	CAT II	Other Assessments #	Average of all Experiments	End Semester Exam for Lab	Review 1	Review 2	Project Report	Written exam	Practical exam	Practical Exam Viva-voce	
1	Theory	7.5 (50)	7.5 (50)								60 (100)		
	Lab				5	20							
Component Weightage ratio for final mark calculation				The final mark of a student for an embedded course will be the weighted average of the marks obtained in the theory and lab components, with weights proportional to the credits of the corresponding component.									

* Mark weightage (outside brackets) and maximum marks for the exam conducted (inside brackets). The maximum marks could vary depending on the credit for lecture/ laboratory/ project.

Table B 3.2.1.j Assessment Process for Practical Courses for R17

S.No.	Description	Weightage
1	Continuous Assessment Test (CAT)	
	a. Record Max.marks (100)	$\frac{\text{RecordMarks} + \text{Model Exam (I + II)}}{4}$
	b. Model Exam I Max.marks (50)	
	c. Model Exam II Max. marks (50)	
	d. Total	50
2	End Semester Exam Marks (ESM)	
	a. Practical Examination Max. marks (100)	50
	Total	100



3.2.2 Record the attainment of Course Outcomes of all courses with respect to set attainment levels (65)

Program shall set Course Outcome attainment levels for all courses.

Measuring Course Outcomes attained through Semester End Examinations (SEE)

Target may be stated in terms of percentage of students getting equal or more than the target set by the Program in SEE for each CO.

Measuring CO attainment through Cumulative Internal Examinations (CIE)

Target may be stated in terms of percentage of students getting more than class average marks or set by the program in each of the associated COs in the assessment instruments (midterm tests, assignments, mini projects, reports and presentations etc. as mapped with the COs)

The attainment of course outcome is evaluated under two categories

- Continuous Assessment
- End semester Assessment

CO attainment target is fixed based on the performance of students in the respective assessment test/exam. The sixthsemester attainment targets for the courses are fixed as given below.

SL.NO	COURSE CODE	COURSE NAME	CO TARGET %
1.	17MEC13	Design of Machine Elements	70
2.	17MEC14	Heat and Mass Transfer (Theory + Lab)	75
3.	17MEC15	Dynamics of Machinery	70
4.	17MEC16	Fluid Power System	75
5.	17MEX04	Product Design	70
6.	17MEX32	Renewable Sources of Energy	75
7.	17MEP08	Dynamics of Machinery Lab	75



If the value of attainment level on 3point scale is less than 1 - Attainment is low, value of attainment level on 3 point scale is greater than or equal to 1 - Attainment is moderate and valueof attainment level on 3 point scale is greater than or equal to 2 - Attainment is substantial

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	
1	NANDHA ENGINEERING COLLEGE, PERUNDURAI, ERODE-638052																									
2	DEPARTMENT OF MECHANICAL ENGINEERING																									
3	CAT-1 ANALYSIS (ODD SEM 2020 - 21)																									
4	COURSE NAME & CODE :17MEC13 - DESIGN OF MACHINE ELEMENTS																									
5	FACULTY NAME: Mr.B.VELLYANGIRI																									
6	Each question Expected Level of attainment - 70%																									
7	TOTAL STRENGTH =																							117		
8	ROLL NO	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17	A18	A19	A20	B1	B2	TEST SCORE OUT OF 50		
9	Course Outcome	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO2	CO2	CO2	CO2	CO2	CO2	CO2	CO2	CO1	CO2			
10	Marks	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15	15			
11	Expected Marks to attainment	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	11	11			
12	SL NO	18ME001	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	14	15	48		
13	2	18ME002	1	1	1	1	1	1	1	0	1	1	1	1	1	1	1	1	1	0	1	11	11	40		
14	3	18ME003	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	10	10	39		
15	4	18ME004	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	11	41		
16	5	18ME005	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	11	41		
17	6	18ME006	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	10	11	40		
18	7	18ME007	0	1	1	0	1	0	1	0	1	0	1	0	1	1	1	0	1	1	1	12	13	38		
19	8	18ME008	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11	11	41		
20	9	18ME009	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	10	40		
21	10	18ME010	1	1	0	1	1	1	0	1	1	1	0	1	1	1	1	1	1	1	1	10	11	38		
22	11	18ME011	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	10	11	41		

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
131	% of scoring above the attainment level	97.4	99.2	91.5	90.6	82.1	59	81.2	91.5	97.4	95.7	95.7	96.6	96.6	98.3	97.4	55.6	95.7	98.3	97.4	98.3	52	82	STUDENTS ATTAINED	
132	2. Course Outcome attainment level indicator																								
133	3											2					1								
134	Range of attainment	>70											≥50 AND ≤70					<50							
135	Mapping with CO	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO1	CO2	CO2	CO2	CO2	CO2	CO2	CO2	CO1	CO2		
136	Attainment level of each CO	3	3	3	3	3	2	3	3	3	3	3	3	3	3	3	2	3	3	3	3	2	3		
137	ATTAINMENT LEVEL OF ALL CO	CO1	CO2																						
138		2.83	2.89																						
139	Mapping with PO	1,2,4,5,6,11,12	1,3,5,6,11,12																						



	A	B	C	D	E	F	G
1	NANDHA ENGINEERING COLLEGE, PERUNDURAI, ERODE-638052						
2	DEPARTMENT OF MECHANICAL ENGINEERING						
3	ASSIGNMENT I ANALYSIS (ODD SEM 2020 - 21)						
4	COURSE NAME & CODE :17MEC13 - DESIGN OF MACHINE ELEMENTS						
5	FACULTY NAME: Mr.B.VELLIYANGIRI						
6	Each question Expected Level of attainment - 70%						
7	TOTAL STRENGTH =				117		
8		A1	A2	A3	A4	A5	TEST SCORE
9	ROLL NO	5	5	5	5	5	
10	Expected Marks to attainment	3.5	3.5	3.5	3.5	3.5	
11	18ME001	5	5	5	5	5	25
12	18ME002	5	5	5	5	5	25
13	18ME003	5	5	5	5	5	25
14	18ME004	5	5	5	5	5	25
15	18ME005	5	5	5	5	5	25
16	18ME006	5	5	5	5	4	24
17	18ME007	5	5	5	5	5	25
18	18ME008	5	5	5	5	5	25
19	18ME009	5	5	5	5	5	25
20	18ME010	5	5	5	5	5	25

	A	B	C	D	E	F	G
129	% of scoring above the attainment level	99.15	99.15	99.15	99.15	99.15	
130	2. Course Outcome attainment level indicator						
131				3	2	1	
132	Level of attainment			>70	50-70	<50	
133	Mapping with CO	CO1	CO1	CO2	CO2	CO2	
134	Attainment level of each CO	3	3	3	3	3	
135	ATTAINMENT LEVEL OF ALL	CO1	CO2				
136		3.00	3.00				
137	Mapping with PO	1,2,12	1,2,3,4,12				
138							



	A	B	C	D	E	F	G	H	I	J	K	L
1	NANDHA ENGINEERING COLLEGE, PERUNDURAI, ERODE-638052											
2	DEPARTMENT OF MECHANICAL ENGINEERING											
3	ONLINE TEST-1 ANALYSIS (ODD SEM 2020 - 21)											
4	COURSE NAME & CODE :17MEC13 - DESIGN OF MACHINE ELEMENTS											
5	FACULTY NAME: Mr.B.VELLIYANGIRI											
6	Each question Expected Level of attainment - 70%											
7	TOTAL STRENGTH =						117					
8		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	TEST SCORE
9	ROLL NO	1	1	1	1	1	1	1	1	1	1	
10	Expected Marks to attainment	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	
11	18ME001	1	1	1	1	1	1	1	1	1	1	10
12	18ME002	1	1	1	1	1	1	1	1	0	0	8
13	18ME003	1	1	1	1	1	1	1	1	1	1	10
14	18ME004	1	1	1	1	1	1	1	0	1	1	9
15	18ME005	1	1	1	1	1	1	1	0	1	1	9
16	18ME006	1	1	1	1	1	1	1	0	1	1	9
17	18ME007	1	1	1	0	1	1	0	0	1	1	7
18	18ME008	1	1	1	0	1	0	1	0	0	1	6
19	18ME009	1	1	1	1	1	1	1	1	1	1	10
Ready												

	A	B	C	D	E	F	G	H	I	J	K	L
125	18MEL54	1	1	1	0	0	1	1	0	1	0	6
126	18MEL55	0	1	1	1	1	0	1	1	0	1	7
127	18MEL56	1	1	1	1	1	1	1	1	1	1	10
128	No of	100	100	98	92	98	96	99	58	83	102	
129	% of	85.47	85.47	83.76	78.63	83.76	82.05	84.62	49.57	70.94	87.2	
130	2. Course Outcome attainment level indicator											
131							3	2	1			
132	Level of attainment						>70	50-70	<50			
133	Mapping with CO	CO1	CO1	CO1	CO1	CO1	CO1	CO2	CO2	CO2	CO2	
134	Attainment level of each CO	3	3	3	3	3	3	3	2	3	3	
135	ATTAINMENT LEVEL OF ALL CO	CO1	CO2									
136		3.00	2.75									
137	Mapping with PO	1,2,4,5,6,11,12	1,3,5,6,11,12									
Ready												



End Semester Attainment:

	A	B	C	D
1	NANDHA ENGINEERING COLLEGE - ERODE-638052			
2	DEPARTMENT OF MECHANICAL ENGINEERING			
3	END SEMESTER MARK ATTAINMENT (ODD SEM 2020 - 21)			
4	COURSE NAME & CODE :17MEC13 - DESIGN OF MACHINE ELEMENTS			
5	FACULTY NAME: Mr.B.VELLIYANGIRI			
6	Each question Expected Level of attainment - 70%			
7	TOTAL STRENGTH =		117	
8	ROLL NO	Student Name	Grade (O=10, A+=9, A=8, B+=7, B=6)	
9	18ME001	ANANDHU SAJI	A+	
10	18ME002	ARIVANANDHAN R R	A+	
11	18ME003	BARATH KUMAR R	A+	
12	18ME004	BHARATH V	A+	
13	18ME005	CHANDRAHARIK A	A+	
14	18ME006	CLEMENT ANDREW C	A+	
15	18ME007	DEV M	B	
16	18ME008	DHAMODHIRAN K	A+	
17	18ME009	ENIYAN G B	A+	
18	18ME010	GOKUL R	A+	
19	18ME011	GOKULAKRISHNAN P	A	
20	18ME012	GOWTHAM P	A+	
21	18ME013	GOWTHAM S	A	
22	18ME014	GOWTHAM S	A	
23	18ME015	GUNA T	A+	
24	18ME016	HARIDHARANI K	B+	

	A	B	C	D
118	18MEL48	SETHIL KUMAR P	RA	
119	18MEL49	SRIDHAR V	A+	
120	18MEL50	SRINIVASAN V	A+	
121	18MEL51	TAMILARASAN B	A+	
122	18MEL52	TAMILSELVAN T	A	
123	18MEL54	VIKASH R	A+	
124	18MEL55	VIVEKA R	A+	
125	18MEL56	YOGARAJ M	O	
126	No of students scores upto expected level		109	
127	% of scoring above the attainment level, Total appeared for Test		93.96	
128	2. Course Outcome attainment level indicator			
129		3	2	1
130	Range of attainment	> 70	50 - 70	<50
131	Satisfaction attainment level based on level indicator		3	
132	Mapping with CO		CO1, CO2,CO3, CO4 and CO5	
133	ATTAINMENT LEVEL OF ALL CO		3	
134	Mapping with PO		1,2,3,4,5,6,9,11 & 12	
135				



Course End Survey:

	A	B	C	D	E	F
1	NANDHA ENGINEERING COLLEGE, ERODE-638052					
2	DEPARTMENT OF MECHANICAL ENGINEERING					
3	COURSE END SURVEY (ODD SEM 2020 - 21)					
4	COURSE NAME & CODE :17MEC13 - DESIGN OF MACHINE ELEMENTS					
5	FACULTY NAME: Mr.B.VELLIYANGIRI					
6	Reg. No.	Estimate the stresses acting on various machine elements by considering the operating conditions	Predict the variables stresses on the machine elements and/or design shafts for the given loading conditions.	Determine the maximum stresses acting on the temporary and/or permanent joints under static loads	Adapt the design procedures to select couplings and/or springs	Select a suitable type of bearing for the design requirements
7	18ME001	3	3	3	3	3
8	18ME002	3	3	3	3	3
9	18ME003	1	1	1	2	2
10	18ME004	3	3	3	3	3
11	18ME005	3	3	3	3	3
12	18ME006	3	3	2	3	2
13	18ME007	3	3	3	3	3
14	18ME008	2	3	1	2	3
15	18ME009	3	3	3	3	3
16	18ME010	2	3	3	2	3
⏪ ⏩ CAT I CAT II ASSIGN 2 ASSIGN 1 OT1 OT2 end survey END SEM OVER ALL ATTAINMENT report						

	A	B	C	D	E	F
104	18MEL33	3	3	3	3	3
105	18MEL34	3	3	3	3	3
106	18MEL35	2	1	2	1	2
107	18MEL36	2	2	2	2	2
108	18MEL39	3	3	3	3	3
109	18MEL40	3	2	3	2	1
110	18MEL41	3	3	3	3	3
111	18MEL42	3	3	3	3	3
112	18MEL43	2	2	3	3	3
113	18MEL44	1	1	1	2	3
114	18MEL45	3	2	3	3	3
115	18MEL46	3	3	3	3	3
116	18MEL48	3	3	3	3	3
117	18MEL49	3	3	3	3	3
118	18MEL50	3	2	3	2	1
119	18MEL51	3	3	3	3	3
120	18MEL52	3	3	3	3	3
121	18MEL54	2	2	3	3	3
122	18MEL55	1	1	1	2	3
123	18MEL56	3	2	3	3	3
124	AVERAGE	2.6	2.6	2.6	2.6	2.7
125	⏪ ⏩ CAT I CAT II ASSIGN 2 ASSIGN 1 OT1 OT2 end survey END SEM OVER ALL ATTAINMENT report					



Course Outcome Attainment:

	A	B	C	D	E	F
1						
2	DIRECT ASSEMENT	ATTAINMENT %				
3		CO1	CO2	CO3	CO4	CO5
4	CAT 1	2.83	2.89			
5	CAT 2			2.82	2.82	2.8
6	AVERAGE OF CAT	2.83	2.89	2.82	2.82	2.83
7	Assignment 1	3.00	3.00			
8	Assignment2			3.00	0.00	0.00
9	AVERAGE OF ASSIGNMENT	3.00	3.00	3.00	0.00	0.00
10	OLT1	3.00	2.75			
11	OLT2			2.00	2.60	3.00
12	AVERAGE OF OLT	3.00	2.75	2.00	2.60	3.00
13	CO ATTAINMENT(3) (30% of CAT + 5% of Assignment + 5% of OLT)	1.15	1.15	1.10	0.98	1.00
14						
15	End Sem(3)	3.00	3.00	3.00	3.00	3.00
16						
17						
18	60% END SEM + 40% CAT (Direct Assessment)	2.95	2.95	2.90	2.78	2.80
	Course End Survey					
		2.57	2.56	2.60	2.61	2.68
CAT I / CAT II / ASSIGN 2 / ASSIGN 1 / OT1 / OT2 / end survey / END SEM / OVER ALL						
Ready						

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
15	End Sem(3)	3.00	3.00	3.00	3.00	3.00											
16																	
17																	
18	60% END SEM + 40% CAT (Direct Assessment)	2.95	2.95	2.90	2.78	2.80											
19	Course End Survey (Indirect Assessment)	2.57	2.56	2.60	2.61	2.68											
20	Final CO% Attainment (80% of Direct +20% of Indirect)	2.87	2.87	2.84	2.74	2.78											
21																	
22																	
23	CO-PO-PSO Attrication Matrix																
24	CO No	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
25	1	3	2		3	3	2					3	2	3	2	2	1
26	2	3		2		3	2					3	2	3	2	2	1
27	3	3		2		2	2					3	3	3	3	2	1
28	4	3		2		3	2					3	3	3	3	2	1
29	5	3	2	2	3	3	2					3	2	3	2	2	1
30	AVERAGE OUT OF 3	3	2	2	3	3	2					3	2	3	2	2	1
31																	
32	PO & PSO Attainment %																
33	CO Attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
CAT I / CAT II / ASSIGN 2 / ASSIGN 1 / OT1 / OT2 / end survey / END SEM / OVER ALL ATTAINMENT / report																	
Ready																	



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
27	3	3		2		2	2					3	3	3	3	2	1
28	4	3		2		3	2					3	3	3	3	2	1
29	5	3	2	2	3	3	2					3	2	3	2	2	1
30	AVERAGE OUT OF 3	3	2	2	3	3	2					3	2	3	2	2	1
31																	
32	PO & PSO Attainment %																
33	CO Attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
34	2.87	2.87	1.92		2.87	2.87	1.92					2.87	1.92	2.87	1.92	1.92	0.96
35	2.87	2.87		1.92		2.87	1.92					2.87	1.92	2.87	1.92	1.92	0.96
36	2.84	2.84		1.89		1.89	1.89					2.84	2.84	2.84	2.84	1.89	0.95
37	2.74	2.74		1.83		2.74	1.83					2.74	2.74	2.74	2.74	1.83	0.91
38	2.78	2.78	1.85	1.85	2.78	2.78	1.85					2.78	1.85	2.78	1.85	1.85	0.93
39	Overall PO/PSO ATTAINMENT OUT OF 3	2.82	1.88	1.87	2.82	2.63	1.88					2.82	2.25	2.82	2.25	1.88	0.94
40	Overall PO/PSO ATTAINMENT PERCENTAGE	94.02	62.77	62.38	94.16	87.72	62.68					94.02	75.08	94.02	75.08	62.68	31.34
41																	
42																	
43																	

Attainment through End Semester Examination:

The value of attainment level on 3 point scale is less than 1 - Attainment is low.

The value of attainment level on 3 point scale is greater than or equal to 1 - Attainment is moderate.

The value of attainment level on 3 point scale is greater than or equal to 2 - Attainment is substantial

Here, End Semester Examination three point scale value is 3.00.

Then, the attainment level of end semester examination is **Substantial**.

Attainment through Continuous Assessment Test (CAT):

The value of attainment level on 3 point scale is less than 1 - Attainment is low.

The value of attainment level on 3 point scale is greater than or equal to 1 - Attainment is moderate.

The value of attainment level on 3 point scale is greater than or equal to 2 - Attainment is substantial

Here, Continuous Assessment Test three point scale value is 2.84.

Then, the attainment level of Continuous Assessment test is **Substantial**.

Overall Attainment:

Overall attainment is calculated by considering both direct and indirect attainment values. Direct attainment includes Continuous Assessment Tests, Assignments, Online Tests and End Semester Examination. Indirect attainment is obtained through Course End Survey.



Direct Attainment

$$\begin{aligned}
 &= 60\% \text{ Weightage of End Semester Examination} + 30\% \text{ of CAT} + \\
 &\quad 5\% \text{ of Assignments} + 5\% \text{ of Online Tests} \\
 &= 60\% \text{ of } (3.00) + 30\% \text{ of } (2.84) + 5\% \text{ of } (3.00) + 5\% \text{ of } (2.67) \\
 &= 1.8 + 0.852 + 0.15 + 0.1335 \\
 &= 2.935
 \end{aligned}$$

As the value of direct attainment level on 3 point scale is greater than 2, direct attainment is **substantial**.

Indirect Attainment

The value of Course End Survey on 3 point scale is less than 1 - Attainment is low.

The value of Course End Survey on 3 point scale is greater than or equal to 1 - Attainment is moderate.

The value of Course End Survey on 3 point scale is greater than or equal to 2 - Attainment is substantial

Here, Course End Survey three-point scale value is **2.60**.

As the value of indirect attainment level on 3 point scale is greater than 2, indirect attainment (Course End Survey) is **substantial**.

Overall Attainment = 80% of Direct Attainment + 20% of Indirect Attainment

$$\begin{aligned}
 &= 80\% \text{ of } 2.935 + 20\% \text{ of } 2.60 \\
 &= 2.348 + 0.52 \\
 &= 2.868
 \end{aligned}$$

As the value of overall attainment level on 3 point scale is greater than 2 - Attainment is substantial.

Therefore, **Overall Attainment** of the course 17MEC13 - DESIGN OF MACHINE ELEMENTS is **substantial**



Table.3.2.2.a Attainment of courses

SEMESTER I						
	Course	CO1	CO2	CO3	CO4	CO5
101	17EYA01 (PE-I)	2.12	1.36	2.76	0.46	2.46
102	17MYB01(M1)	2.52	2.64	2.60	1.34	2.36
103	17PYB01(PE)	2.54	2.12	2.56	1.86	2.53
104	17CYB01(AC)	1.87	1.87	1.83	2.02	1.84
105	17MEC01(EG)	2.53	1.86	2.63	2.26	2.62
106	17ECC02 (BEE)	2.59	2.62	2.52	1.31	2.61
107	17GYP01(PC LAB)	1.34	1.39	1.35	1.36	1.41
108	17GYP02 (EP LAB)	2.84	2.76	2.12	2.04	2.72
SEMESTER II						
109	17EYA02 (PE-II)	2.53	1.28	2.64	0.64	2.08



110	17MYB02 (M2)	1.64	1.86	1.61	1.46	1.56
111	17PYB03 (MP)	2.52	1.84	1.82	2.01	1.82
112	17CYB03 (ESE)	1.85	1.86	1.82	2.01	1.82
113	17MEC02 (EM)	2.85	1.53	1.61	0.64	2.84
114	17CSC01(PYTHON)	2.52	1.56	1.32	1.87	1.64
115	17MEP02(CAMD LAB)	1.78	1.73	1.76	1.75	1.75
116	17CSP01(Python Lab)	2.76	2.52	2.12	2.42	2.56
SEMESTER III						
201	17MYB03 (M3)	2.00	2.00	1.00	1.00	2.00
202	17MEC03(MET)	3.00	3.00	3.00	1.00	3.00
203	17MEC04 (ET)	1.87	1.64	1.52	0.86	1.76



204	17MEC05 (FM)	1.75	1.60	1.86	1.50	1.17
205	17MEC06 (MP)	2.00	2.00	3.00	1.00	2.00
206	17MEP03 (MP Lab)	2.96	2.96	2.95	2.95	2.96
207	17MEP04 (CAMD Lab)	2.26	2.26	2.25	2.25	2.26
SEMESTER IV						
208	17MYB06 (SNM)	2.30	2.39	2.40	1.70	1.61
209	17MEC08 (KoM)	1.75	1.75	1.82	2.12	1.86
210	17MEC09 (TES)	3.00	3.00	3.00	3.00	3.00
211	17MEC10 (SMP)	2.54	2.63	2.34	2.51	2.74
212	17MEC11 (SOM)	1.87	2.12	2.34	1.67	2.34
213	17MEX20 (WE)	2.67	2.54	2.62	2.74	2.61



214	17MEP05 (TES Lab)	2.76	2.67	2.54	2.78	2.84
215	17MEP06 (SMP Lab)	2.99	2.94	2.97	2.97	2.97
SEMESTER V						
301	17MEC13 (DME)	2.87	2.87	2.84	2.74	2.78
302	17MEC14 (HMT)	2.04	1.86	2.62	0.87	1.52
303	17MEC15 (DOM)	2.84	2.62	2.84	2.86	2.86
304	17MEC16 (FPS)	2.44	2.46	2.49	2.42	2.49
305	17MEX04 (PD)	2.87	2.70	2.80	2.85	2.65
306	17MEX32 (RSE)	2.51	2.50	2.52	2.73	2.78
307	17MEP08 (DOM Lab)	2.69	2.68	2.68	2.68	2.68
SEMESTER VI						
308	17MEC17 (MTS)	2.85	2.90	2.80	2.81	2.69



309	17MEC18 (DTS)	2.79	2.81	2.87	2.90	2.90
310	17MEC19 (MM)	2.84	2.88	2.82	2.83	2.73
311	17MEX16 (AE)	2.79	2.69	2.81	2.79	2.87
312	17MEX21 (NDT))	2.90	2.84	2.91	2.88	2.91
313	17MEP09 (MTS Lab)	2.86	2.87	2.86	2.86	2.87
SEMESTER VII						
401	17MEC20 (CCC)	2.91	2.83	2.80	2.75	2.56
402	17MEC21 (FEA)	2.17	2.18	2.14	2.13	2.15
403	17MEC22 (PPT)	2.74	2.60	2.66	2.61	2.54
404	17GEA03 (TQM)	2.62	2.55	2.52	2.52	2.38
405	17MEP10 (CC Lab)	2.98	2.93	2.96	2.95	2.95
406	17MEP11 (CAA Lab)	2.94	2.94	2.93	2.93	2.94
407	17MED01 (PRJ-I)	2.54	2.04	2.04	2.04	2.04



SEMESTER VIII						
408	17MEX26 (NVPM)	2.57	2.53	2.59	2.53	2.53
409	17MED02 (PRJ-II)	2.87	2.76	2.68	2.79	2.84



3.3 Attainment of Program Outcomes and Program Specific Outcomes (75)

Self Assessment (60)

3.3.1 Describe assessment tools and processes used for measuring the attainment of each Program Outcome and Program Specific Outcomes (10)

(Describe the assessment tools and processes used to gather the data upon which the evaluation of each of the Program Outcomes and Program Specific Outcomes is based indicating the frequency with which these processes are carried out. Describe the assessment processes that demonstrate the degree to which the Program Outcomes and Program Specific Outcomes are attained and document the attainment levels)

Assessment tools used for measuring the attainment of POs and PSOs:

Software that simplifies CO, PO and PSO attainment calculation is used to evaluate the PO and PSO. Further, Microsoft Excel program is being used for calculating attainment level of course outcome, PO and PSO course wise.



CONTINUOUS ASSESSMENT TEST - I ANALYSIS																			
ACADEMIC YEAR : 2021-22 SEMESTER : 05 COURSE NAME & CODE :																			
FACULTY NAME:																			
Each question expected level of attainment : 70																			
TOTAL STRENGTH =																			
ROLL NO	A1(2)	A2(2)	A3(2)	A4(2)	A5(2)	B1(a)	B1(b)	C1(a)	C1(b)	C2(a)	C2(b)	TEST SCORE	Marks Secured in CO1	Marks Secured in CO2	Marks Secured in CO3	Attainment %			
Marks	2	2	2	2	2	8	8	16	16	16	16	50	20	20	10	CO1	CO2	CO3	
Expected Marks to attainment	1.4	1.4	1.4	1.4	1.4	5.6	5.6	11	11	11	11		14	14	7	Target : 70%			
CO	1	1	2	2	3	3	3	1	1	2	2		1	2	3				
	1	1	2	1			8	13		14			40	15	17	8	75	85	80
													0	0	0	0	0	0	0
	1	1	1			4			12	15			34	14	16	4	70	80	40
	2	2	2				8		12		16		42	16	18	8	80	90	80
	2	2	2	2			8		16	16			48	20	20	8	100	100	80
	2		2			1			8	12			25	10	14	1	50	70	10
	2	2	2	2		1			12	15			34	16	17	1	80	85	10
	2	2	2	2	2	8			14		16		48	18	20	10	90	100	100
	2	2	1			7			15	11			38	19	12	7	95	60	70

Direct Assessment:

- PO Assessment Tools are categorized into direct and indirect methods to assess the program outcomes and program Specific outcomes.
- Continuous internal evaluation, semester end examinations, assignments and online tests are used for CO calculation. Rubric values calculated for individual course are formulated and summed for assessing the POs. The weighted average of the POs for all the courses is calculated.

Indirect Assessment:

- The student exit survey is a questionnaire prepared by faculty member and answered by every individual student about the program after the completion of program. This is collected from the graduating students of that year.
- The Alumni survey is obtained from alumni students of the department.
- The employer’s survey is obtained from the recruiters of the department during placement drives.
- The final PO attainment is sum of the direct assessment and indirect assessment surveys.



Table.3.3.1. a Assessment Processes

Assessment Tools	Direct / Indirect	Remarks
Course Evaluation	Direct	<ul style="list-style-type: none"> • Courses are evaluated through internal assessment examinations and end semester examinations. • Other modes of evaluation are Assignments / Tutorials, online tests and attendance.
Project Evaluation	Direct	Project evaluation is conducted periodically and at the end of the semester.
Course End Survey	Indirect	Course Survey is collected at the end of each semester Alumni Survey and Indirect Alumni Survey are collected at the end of each academic year
Student Exit Survey	Indirect	Student Exit Survey is collected from the Graduates
Alumni Survey	Indirect	Alumni Survey is collected from Alumni
Employer Survey	Indirect	Employer Survey is collected from employer of Alumni



Table.3.3.1.b Frequency of Assessment Processes

Assessment Tools	Frequency	Stakeholders	Coordinator/ Committee
Course Evaluation	Twice a Year	Students	Head of the Department
Project Evaluation	Continuous assessment through reviews	Students	Industry expert, Supervisor, Head of the Department and Project review committee
Course End Survey	Twice a Year	Students	Course Co-coordinator
Student Exit Survey	Yearly	Graduates	Programme Co-coordinator
Alumni Survey	Yearly	Alumni	Head of the Department
Employer Survey	Yearly	Employer	Head of the Department



INDIRECT ATTAINMENT

Alumni survey:

ALUMNI SURVEY

THE ALUMNI STUDENTS ARE REQUESTED TO GIVE YOUR FEEDBACK ABOUT OUR MECHANICAL DEPARTMENTS PROGRAM OUTCOMES AND PROGRAM SPECIFIC OUTCOMES THAT ARE LISTED. YOU HAVE TO ASSESS THE OUTCOME LISTED BELOW WITH THE POINTS SUCH AS

3-HIGH

2-MODERATE

1-LOW

* Required

DEPARTMENT OF MECH

Alumni Name *

Your answer

Email *

Your answer

COMPANY NAME & LOCATION *

Your answer

DESIGNATION *

Your answer

BATCH YOU HAVE PASSED OUT *

Choose



NANDHA

ENGINEERING COLLEGE (Autonomous)

LIST OF PROGRAM OUTCOMES

a. Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems *

- HIGH
- MODERATE
- Low

b. Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences *

- HIGH
- MODERATE
- LOW

c. Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. *

- HIGH
- MODERATE
- LOW

d. Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions *

- HIGH
- MODERATE
- Low



e. Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations *

- HIGH
- MODERATE
- Low

f. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice *

- HIGH
- MODERATE
- Low

g. Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development *

- HIGH
- MODERATE
- Low

h. Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice *

- HIGH
- MODERATE
- Low



i. Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings *

- HIGH
- MODERATE
- Low

j. Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions *

- HIGH
- MODERATE
- Low

K. Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments *

- HIGH
- MODERATE
- Low

l. Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. *

- HIGH
- MODERATE
- Low



LIST OF PROGRAM SPECIFIC OUTCOME

Your answer

Ability to design mechanical systems with required specifications using latest software packages.

- HIGH
- MODERATE
- LOW

Ability to identify sustainable materials and technologies for alternate engineered solutions.

- HIGH
- MODERATE
- LOW

Ability to apply the concepts and principles of manufacturing engineering to innovate and to create products and processes with sustainable manufacturing.

- HIGH
- MODERATE
- LOW

Ability to provide solution to challenges in the solar thermal systems.

- HIGH
- MODERATE
- LOW

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Employer survey:

**NANDHA ENGINEERING COLLEGE, ERODE-52
(AUTONOMOUS)**

Department of Mechanical Engineering

EMPLOYER SURVEY

Dear Sir/Madam,

Nandha Engineering College is involved in the process of continuous improvement to mould students so as to fulfil the requirements of the Industry / Business organizations. At this juncture, we would like to get your feedback about our Graduates, who is/are at present employed in your organization. This data is being collected as part of requirement of National Board of Accreditation (NBA), a Government body, under aegis of Min. of Human Resources & Development, New Delhi. NBA assesses engineering colleges in India and rates them for quality technical education. Hence, this survey form is purely meant for academic purpose in taking corrective measures by our Institution, in filling the gaps, to impart quality education to all students graduating from our Institution. We assure you that the data will be kept confidential.

Kindly mark the following attributes appropriately suiting him/her as your employee.

Your most valuable response to all questions is solicited and highly appreciated.

Name of the Organization : NS Instruments India PVT LTD.

Employer Details

Name of the Assessor : B.Anbalagan
Designation : Quality Manager

Employee Details (Alumni of NEC)

Name : M. Ariharasudhan
Period of Studies : 2012-2016
Branch : Mechanical Engineering
Present Designation : Senior Engineer in Quality
Experience : 5 years



VISION & MISSION OF THE INSTITUTE

VISION:

To be a World class Engineering Institution in Leading Technological and Socio-Economic Development of the Country by enhancing the Global Competitiveness of Technical Manpower and by ensuring High Quality Technical Education through Dissemination of Knowledge, Insights and Intellectual Contributions.

MISSION:

To provide value-based technical education and mould the character of younger generation.

VISION & MISSION OF THE DEPARTMENT

VISION:

To be a premier centre for learning in Mechanical Engineering in the country.

MISSION:

Department of Mechanical Engineering is committed

- To offer state-of-the-art undergraduate, postgraduate and research programmes in engineering.
- To develop skilled and employable graduates to meet the challenges in emerging fields of Engineering.
- To prepare the students for prosperous career in Engineering / Entrepreneurship by inculcating the leadership qualities with professional and ethical responsibilities for the benefit of the society.
- To encourage Research & Development in the thrust areas of Engineering.

We would like you to take a few minutes to complete this brief questionnaire.

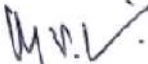
How do you rate the current potential of NEC MECH alumni working in your organization on the following criteria:	Exemplary (4)	Accomplished (3)	Developing (2)	Beginning (1)
Ability to apply knowledge of mathematics, science and engineering.	√			
Ability to design and conduct experiments, as well as to analyze and interpret data.	√			
Ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, ethical, safety, manufacturability and sustainability.		√		
Ability to function on multidisciplinary teams to solve complex problems.	√			
Ability to use the techniques, skills and modern engineering tools necessary for engineering practice.	√			
Ability to infer societal, health, safety, legal & cultural issues and consequent responsibilities relevant to the professional engineering practice.	√			



Ability to explain, compare and summarize the impact of engineering solutions for Sustainable development with societal and environmental perspective.		√		
Understanding of professional and ethical responsibility.	√			
Ability to function effectively as an individual / team in different environments	√			
Ability to communicate effectively.	√			
Ability to apply knowledge of engineering and management principles to the projects.	√			
Ability to recognize the need for life-long learning.		√		

How do you rate the current potential of NEC MECH alumni working in your organization on the following criteria:	Exemplary (4)	Accomplished (3)	Developing (2)	Beginning (1)
Ability to design mechanical systems with required specifications using latest software packages	√			
Ability to identify sustainable materials and technologies for alternate engineered solutions	√			
Ability to apply the concepts and principles of manufacturing engineering to innovate and to create products and processes with sustainable manufacturing	√			
Ability to provide solution to challenges in the solar thermal systems		√		

Any other comments or suggestions

Signature with date: 

Mobile No. : 8072493591

Email : qc1@nsip.co.in



Student Exit Survey:

NANDHA ENGINEERING COLLEGE (Autonomous)

Department of Mechanical Engineering
Exit Survey '20 Questionnaire

* Required

1. Email *

2. Register Number *

3. Medium of Education till 12th grade: *

Mark only one oval.

English

Tamil

4. Mode of admission: *

Mark only one oval.

Management

Counselling

5. Admission: *

Mark only one oval.

Direct First Year

Lateral Entry



5. Admission *

Mark only one oval.

Direct First Year

Lateral Entry

6. Name of the Department *

Survey about Program Outcome (POs)

7. an ability to apply knowledge of mathematics, science and engineering *

Mark only one oval.

Low

Moderate

Sustainable

8. an ability to design and conduct experiments, as well as to analyze and interpret data *

Mark only one oval.

Low

Moderate

Sustainable



9. an ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, ethical, safety, manufacturability and sustainability *

Mark only one oval.

- Low
 Moderate
 Sustainable

10. an ability to function on multidisciplinary teams to solve complex problems *

Mark only one oval.

- Low
 Moderate
 Sustainable

11. an ability to use the techniques, skills and modern engineering tools necessary for engineering practice *

Mark only one oval.

- Low
 Moderate
 Sustainable



12. an ability to infer societal, health, safety, legal & cultural issues and consequent responsibilities relevant to the professional engineering practice *

Mark only one oval.

- Low
 Moderate
 Sustainable

13. an ability to explain, compare and summarize the impact of engineering solutions for sustainable development with societal and environmental perspective *

Mark only one oval.

- Low
 Moderate
 Sustainable

14. an understanding of professional and ethical responsibility *

Mark only one oval.

- Low
 Moderate
 Sustainable

15. an ability to function effectively as an individual / team in different environments *

Mark only one oval.

- Low
 Moderate
 Sustainable



16. an ability to communicate effectively *

Mark only one oval.

- Low
 Moderate
 Sustainable

17. an ability to apply knowledge of engineering and management principles to the projects *

Mark only one oval.

- Low
 Moderate
 Sustainable

18. an ability to recognize the need for life-long learning *

Mark only one oval.

- Low
 Moderate
 Sustainable



19. Ability to update knowledge of faculty members in their area of specialization *

Mark only one oval.

- Low
- Moderate
- Sustainable

20. Ability to apply strategies for continual improvement of Mechanical Engineering programme *

Mark only one oval.

- Low
- Moderate
- Sustainable

21. Ability to infuse research activities in Mechanical Engineering *

Mark only one oval.

- Low
- Moderate
- Sustainable

22. Ability to become aware of environmental and social aspects through extracurricular activities *

Mark only one oval.

- Low
- Moderate
- Sustainable



3.3.2 Provide results of evaluation of each PO & PSO (65)

(The attainment levels by direct (student performance) and indirect surveys) are to be presented through Program level Course PO&PSO matrices as indicated).

PO Attainment & PSO Attainment:**Table.3.3.2.a Attainment of PO's and PSO's of Courses**

SEMESTER I																	
Course No.	Course Code & Course name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
C101	17EYA01 Professional English - I	-	-	-	-	-	1.26	0.6	0.6	1.3	2.00	-	0.6	-	-	-	-
C102	17MYB01 Calculus and Solid Geometry	2.04	2.83	-	1.68	0.72	0.54	0.87	0.91	-	0.87	0.64	0.92	-			
C103	17PYB01 Physics for Engineers		0.82	1.64	0.86		0.56	0.54			0.52	1.84	0.86		0.83		
C104	17CYB01 Applied Chemistry	1.89	-	-	-	-	-	-	-	1.64	-	1.64	1.64		1.13		0.63
C105	17MEC01 Engineering Graphics	1.86	-	1.54	1.83	2.12	-	-	-	1.52	-	1.64	1.83	2.76	2.54	0.86	0.64
C106	17ECC02 Basic Electrical, Electronics and Instrumentation Engineering	0.86	0.65	0.54				1.21	-	-	-	-	-	-	-	-	-
C107	17GYP01 Physics and Chemistry Laboratory	1.10	0.91	-	1.00	-	0.91	1.03	-	-	0.89	0.89	-		0.59		
C108	17GYP02 Engineering Practice Laboratory	1.24	0.84	1.36	1.45	2.46	-	0.84	1.92	-	-	-	2.36	2.46	1.36	1.24	2.24



SEMESTER II																	
C109	17EYA02 Professional English - II	-	-	-	-	-	1.3	0.6	0.6	1.3	2.00	-	0.6	-	-	-	-
C110	17MYB02 Complex Analysis and Laplace Transform	1.42	2.35	1.28	0.84	1.12	2.12	0.56	2.34	-	1.28	2.46	1.23	-	-	-	-
C111	17PYB03 Materials Physics	1.95	1.20	0.75	-	-	0.50	-	-	0.64	-	-	-	-	0.76	-	-
C112	17CYB03 Environmental Science	1.87	-	-	-	-	-	-	-	1.63	-	1.63	1.63		0.63		0.63
C113	17MEC02 Engineering Mechanics	2.76	2.34	2.74	2.45	-	-	-	-	-	2.76		2.54	1.12	1.86	2.56	-
C114	17CSC01 Problem Solving and Python Programming	0.86	0.74	1.24	-	-	-	-	-	-	1.28	1.13		1.56	-	-	-
C115	17MEP02 Computer Aided Modeling and Drafting Laboratory	1.17	1.16	-	1.17	-	0.58	-	-	1.17	-	1.17	1.17	1.29	1.17	0.58	-
C116	17CSP01 Problem Solving and Python Programming	2.76	2.18	2.08	-	0.86	-	-	-	1.78	0.56	1.58	-	2.64	-	-	-



SEMESTER III																	
C201	17MYB03 Fourier Series and Partial Differential Equations	2.00	1.00	1.00	-	-	-	1.00	-	-	-	-	-	-	-	-	-
C202	17MEC03 Materials Engineering and Technology	3.00	2.00	1.00	1.00	3.00	2.00	-	-	-	-	2.00	2.00	2.00	1.50	2.00	2.00
C203	17MEC04 Engineering Thermodynamics	2.00	2.00	2.00	2.00	2.00	1.00	-	1.00	-	1.00	1.00	1.00	2.00	1.50	2.00	1.00
C204	17MEC05 Fluid Mechanics and Machinery (Theory+Lab)	1.00	1.00	1.00	-	1.00	1.00	-	-	-	1.00	-	1.00	2.00	2.00	1.00	1.00
C205	17MEC06 Manufacturing Processes	2.00	1.00	1.00	1.00	1.00	1.00	-	1.14	-	1.00	1.00	1.00	1.60	2.00	1.14	0.60
C206	17MEP03 Manufacturing Processes Laboratory	2.36	2.96	2.22	1.97	1.97	1.97	-	1.97	-	1.97	1.97	1.97	2.56	1.38	1.58	-
C207	17MEP04 Computer Aided Machine Drawing Laboratory	1.50	2.26	-	-	-	1.50	-	1.50	1.50	-	1.95	1.95	1.95	1.17	1.23	-



SEMESTER IV																	
C208	17MYB06 Statistics and Numerical Methods	2.08	1.39	0.70	-	-	-	-	-	-	-	-	1.24				
C209	17MEC08 Kinematics of Machinery (Theory + Lab)	1.86	1.89	1.86	1.21			1.24			1.24	1.36	1.24	1.19	1.18	1.24	
C210	17MEC09 Thermal Engineering Systems	3.00	2.00	3.00	3.00	3.00	1.00	-	1.00	-	1.00	2.00	2.00	3.00	2.00	3.00	2.00
C211	17MEC10 Subtractive Manufacturing Processes	2.67	-	-	-	2.12	-	-	2.34	-	-	1.87	1.67	2.54	2.34	1.18	2.26
C212	17MEC11 Strength of Materials (Theory + Lab)	2.12	2.67	2.54	2.64	2.76	1.87					1.52	0.67	1.74	1.82	2.54	-
C213	17MEX20 Welding Engineering	2.75	1.87	2.12	1.76	2.39		2.67	1.86		1.69	1.47	2.67	2.42	2.86	2.44	
C214	17MEP05 Thermal Engineering Systems Laboratory	3.00	3.00	2.00	2.00		3.00	1.00	3.00	3.00		3.00	3.00	3.00	2.00	3.00	3.00
C215	17MEP06 Subtractive Manufacturing Processes Laboratory	1.98	1.97	-	-	1.97	-	-	1.97	-	-	1.97	1.98	2.18	1.98	1.98	-



SEMESTER V																	
C301	17MEC13 Design of Machine Elements	2.82	1.88	1.87	2.82	2.63	1.88	-	-	-	-	2.82	2.25	2.82	2.25	1.88	0.94
C302	17MEC14 Heat and Mass Transfer (Theory + Lab)	2.48	0.66				1.15	-	0.33		0.33	1.98	1.98	2.51	1.98	0.98	0.65
C303	17MEC15 Dynamics of Machinery	1.73	2.12			1.55	0.38	0.57				1.14	2.12	0.58	0.95	1.93	2.30
C304	17MEC16 Fluid Power System	2.13	1.64	1.23	1.48	1.80	-	-	0.82	0.82	0.82	1.15	1.48	2.13	1.48	0.98	-
C305	17MEX04 Product Design	2.58	2.41				0.53	1.87			2.22	1.50	2.39	1.66	2.02	0.73	1.48
C306	17MEX32 Renewable Sources of Energy	2.00				2.00		-	-		-	2.00	2.00	-			2.16
C307	17MEP08 Dynamics of Machinery Laboratory	2.32	2.32	2.38	-	-	1.78	-	-	-	2.46	2.14	1.96	-	2.14	2.32	-



SEMESTER VI																	
C308	17MEC17 Mechatronics	2.81	1.49	1.88	1.51	1.12	0.38	1.50				2.25	1.86	2.25	2.25	1.31	1.31
C309	17MEC18 Design of Transmission Systems	2.85	2.85	2.85	1.90	1.90	1.90	-	-	-	-	2.85	2.85	2.85	2.85	0.95	0.95
C310	17MEC19 Metrology and Measurements (Theory + Lab)	2.05	2.33	1.68	-	-	-	-	-	-	2.34	2.05	2.24	2.43	2.24	1.12	1.12
C311	17MEX16 Automobile Engineering	2.05	2.36	1.86	2.87	1.86	1.87	-	-	-	-	2.24	1.86	2.23	2.42	2.09	1.62
C312	17MEX21 Non-Destructive Testing & Evaluation	2.89	1.93	1.20	1.73	2.12	-	1.16	0.96	1.35	0.96	1.16	1.74	2.51	1.73	1.16	-
C313	17MEP09 Mechatronics Laboratory	2.15	1.47	2.35	1.96	1.96	-	0.98	-	-	-	1.96	2.35	2.74	2.00	1.57	-



SEMESTER VII																	
C401	17MEC20 CAD / CAM/CIM	1.85	1.88	2.23	1.68	-	1.68	1.84	-	-	-	1.53	1.94	0.92	1.85	0.92	-
C402	17MEC21 Finite Element Analysis	1.87	1.43	1.07	1.29	1.57			0.72	0.72	0.71	1.00	1.29	1.86	1.29	0.86	
C403	17MEC22 Power Plant Technology	2.63	-	-	-	1.93	-	1.93	-	-	-	1.92	1.75	1.32	1.21	1.31	1.31
C404	17GEA03 Total Quality Management	-	2.27	2.1	-	1.68	2.04	-	1.75	-	-	-	-	2.42	2.1	2.2	0.88
C405	17MEP10 CAD / CAM Laboratory	2.95	-	2.95	2.95	2.95	-	-	-	2.95	-	2.95	-	2.95	1.97	2.95	2.95
C406	17MEP11 Computer Aided Analysis Laboratory	2.94	2.94	2.94	1.76	2.94	-	-	-	2.76	1.57	1.76	2.35	2.94	1.96	1.96	0.98
C407	17MED01 Project Work - I	2.2	1.7	1.69	1.41	1.27	1.53	0.85	0.85	1.87	1.53	1.02	1.7	1.28	1.02	0.85	-

SEMESTER VIII																	
C408	17MEX26 New Venture Planning and Management	2.38	2.04	-	-	-	2.53	2.34	-	-	2.21	2.26	2.04	1.36	2.27	1.71	-
C409	17MED02 Project Work - II	1.84	1.7	1.56	1.11	1.01	1.24	0.67	0.7	2.1	1.27	1.1	1.41	1.01	0.84	1	1.05



Table B.3.3.2.b Overall Attainment Calculation of Programme Outcomes (PO)

SURVEY	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
ALUMNI SURVEY	2.54	2.87	2.71	2.81	2.74	2.79	2.12	2.34	2.79	2.64	2.87	2.74
EMPLOYER SURVEY	2.34	2.48	2.63	2.87	2.34	2.91	2.20	2.58	2.81	2.31	2.91	2.64
STUDENT EXIT SURVEY	2.42	2.43	2.83	2.79	2.32	2.79	2.41	2.18	2.91	2.08	2.79	2.73
INDIRECT ATTAINMENT	2.43	2.59	2.72	2.82	2.47	2.83	2.24	2.37	2.84	2.34	2.86	2.70
DIRECT ATTAINMENT	2.13	1.86	1.79	1.81	1.99	1.46	1.47	1.47	1.76	1.47	1.84	1.85
OVER ALL ATTAINMENT (80% Direct Att. + 20% Indir. Att.)	2.18	2.00	1.99	1.96	2.00	1.64	1.45	1.59	1.96	1.61	1.96	1.99
% of OVER ALL ATTAINMENT	72.80	66.53	66.48	65.32	66.50	54.75	48.48	53.12	65.17	53.71	65.25	66.35



Table B.3.3.2.c Overall Attainment Calculation of Programme Specific Outcomes (PSO)

SURVEY	PSO1	PSO2	PSO3	PSO4
ALUMNI SURVEY	2.71	2.69	2.14	2.76
EMPLOYER SURVEY	2.25	2.74	1.83	2.91
STUDENT EXIT SURVEY	2.19	2.72	2.12	2.87
INDIRECT ATTAINMENT	2.38	2.72	2.03	2.85
DIRECT ATTAINMENT	2.14	1.80	1.70	1.42
OVER ALL ATTAINMENT (80% Direct Att. + 20% Indir. Att.)	2.13	1.96	1.67	1.70
% of OVER ALL ATTAINMENT	70.96	65.31	55.61	56.63

C10 and C102 are indicate courses in the first year. Similarly, C409 is final year course. First numeric digit indicates year of study and remaining two digits indicate course nos. in the respective year of study.



CRITERION 4

STUDENTS' PERFORMANCE



CRITERION 4	Students' Performance	100
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Table 4.1 Cumulative Students Strength

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	CAY (2021-22)	CAYm1 (2020-21)	CAY m2 (2019-20)	CAYm3 (2018-19)	CAYm4 (2017-18)	CAYm5 (2016-17)	CAYm6 (2015-16)
Sanctioned intake of the program (<i>N</i>)	120	120	120	180	180	180	180
Total number of students admitted in first year <i>minus</i> number of students migrated to other programs/ institutions, plus no. of students migrated to this program (<i>N1</i>)	97	46	90	71	152	151	173
Number of students admitted in 2nd year in the same batch via lateral entry (<i>N2</i>)	53	76	41	56	41	30	38
Separate division students, if applicable (<i>N3</i>)	-	-	-	-	1(rejoin)	-	2(rejoin)
Total number of students admitted in the Program (<i>N1 + N2 + N3</i>)	150	122	131	127	194	181	213

Current Academic Year**CAYm1- Current Academic Year minus1= Current Assessment Year****CAYm2 - Current Academic Year minus2=Current Assessment Year minus 1****LYG – Last Year Graduate****LYGm1 – Last Year Graduate minus 1****LYGm2 – Last Year Graduate minus 2**

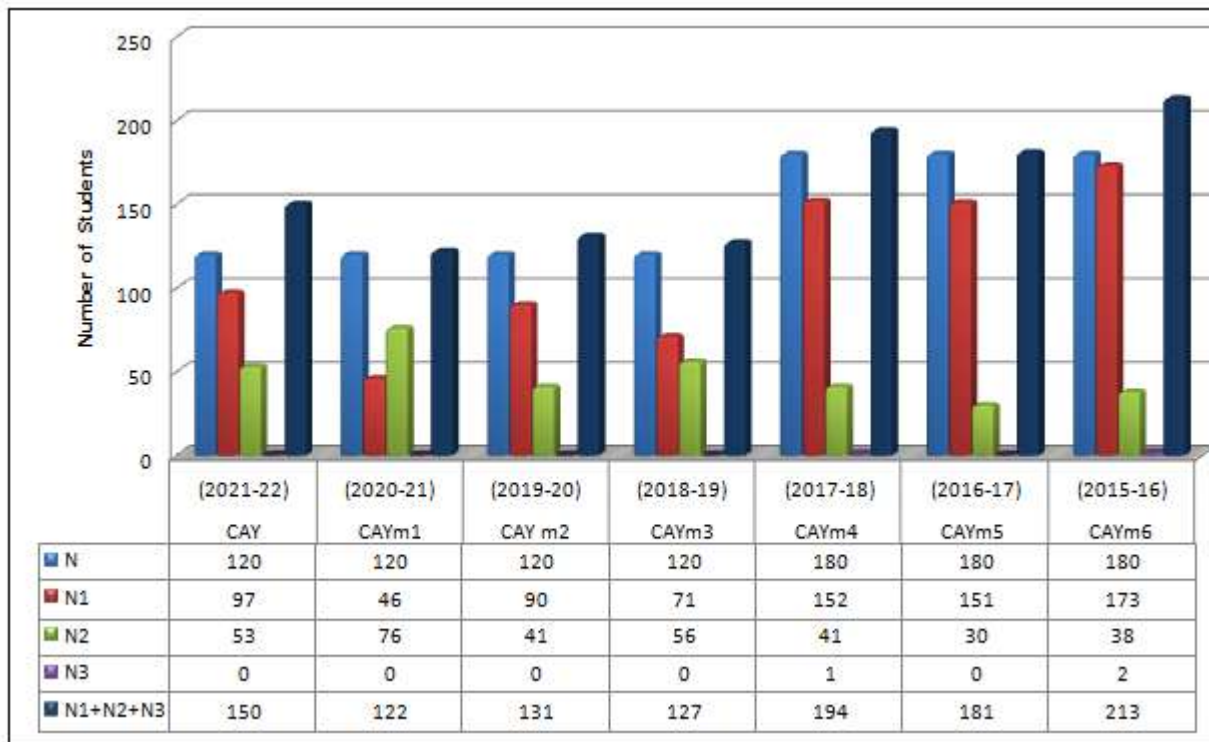


Figure 4.1 Cumulative Students Strength

Table 4.2 Number of students successfully Graduated without Backlogs

Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfully graduated without backlogs in any semester/year of study (Without Backlog means no compartment or failures in any semester/year of study)			
		I Year	II Year	III Year	IV Year
CAY (2021-2022)	150	30			
CAYm1(2020-2021)	122	27	57		
CAYm2 (2019-2020)	131	42	55	52	
CAYm3 (2018-2019)	127	36	63	56	56
CAYm4(LYG) (2017-2018)	194	59	75	70	70
CAYm5 (LYGm1) (2016-2017)	181	78	98	96	96
CAYm6(LYGm2) (2015-2016)	213	76	87	84	83

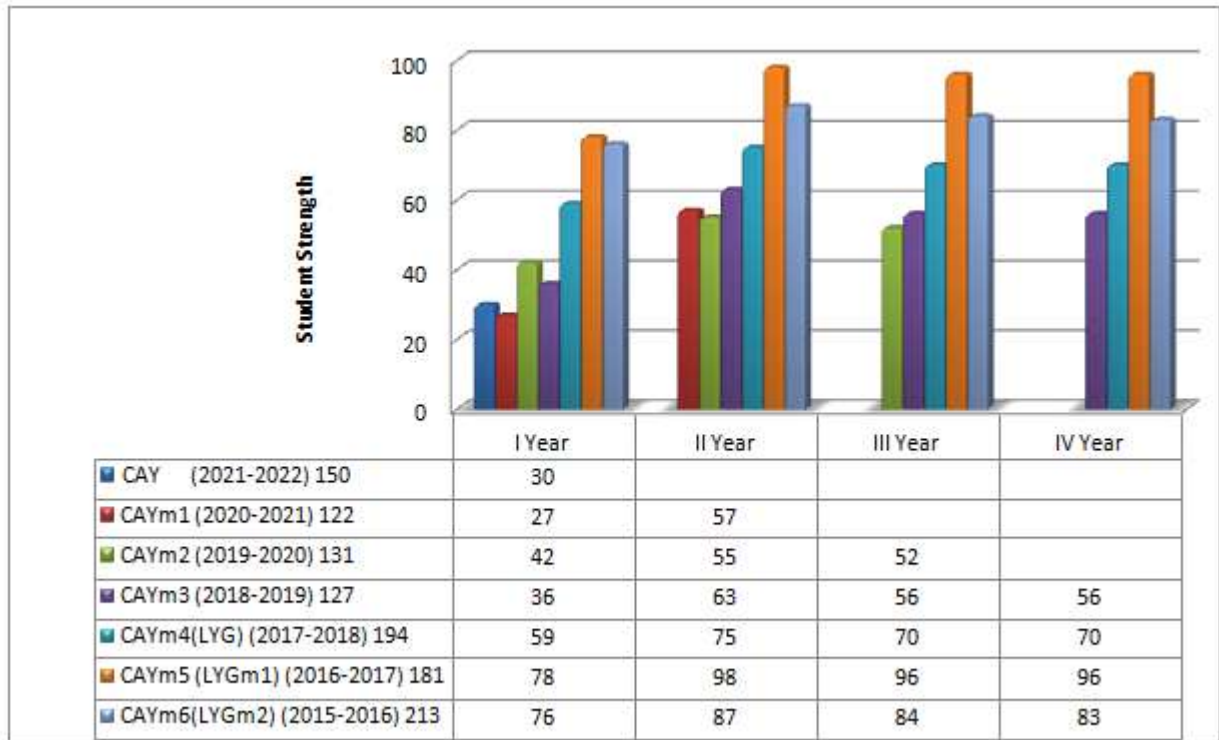


Figure 4.2 Number of students successfully Graduated without Backlogs

Table 4.3 Number of students successfully Graduated [with backlog + without backlog]

Year of entry	N1 + N2 + N3 (As defined above)	Number of students who have successfully graduated (Students with backlog in stipulated period of study) (with+without backlogs)			
		I Year	II Year	III Year	IV Year
CAY (2021-2022)	150	55			
CAYm1(2020-2021)	122	46	121		
CAYm2 (2019-2020)	131	87	127	125	
CAYm3 (2018-2019)	127	67	117	116	114
CAYm4 (LYG) (2017-2018)	194	151	184	182	182
CAYm5 (LYGm1) (2016-2017)	181	148	177	177	127
CAYm6 (LYGm2) (2015-2016)	213	165	204	202	159

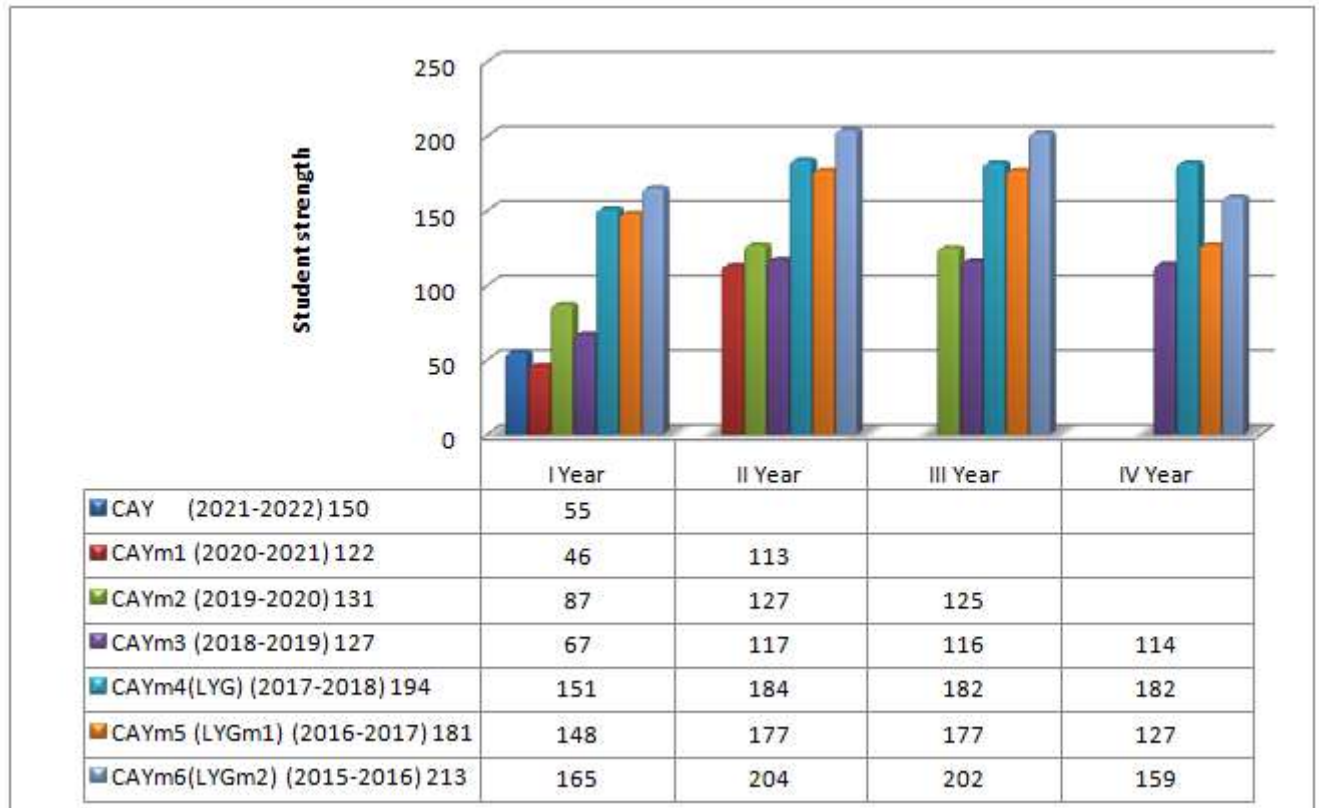


Figure 4.3 Number of students successfully Graduated [with backlog + without backlog]

4.1 Enrolment Ratio

(20)
Self Assessment (14)

Table B.4.1 Enrolment Ratio for the Last three Years

Academic Year	CAY 2021-2022	CAYm1 2020-2021	CAYm2 2019-2020
N(from table 4.1)	120	120	120
N1(from table 4.1)	97	46	90
Enrolment Ratio[(N1/N)] %	80.83	38.33	75
	Average Enrollment Ratio %		64.72

Item	Marks
(Students enrolled at the First Year Level on average basis during the previous three academic years starting from current academic year)	
>=90% students enrolled	20



>=80% students enrolled	18
>=70% students enrolled	16
>=60% students enrolled	14
Otherwise	0

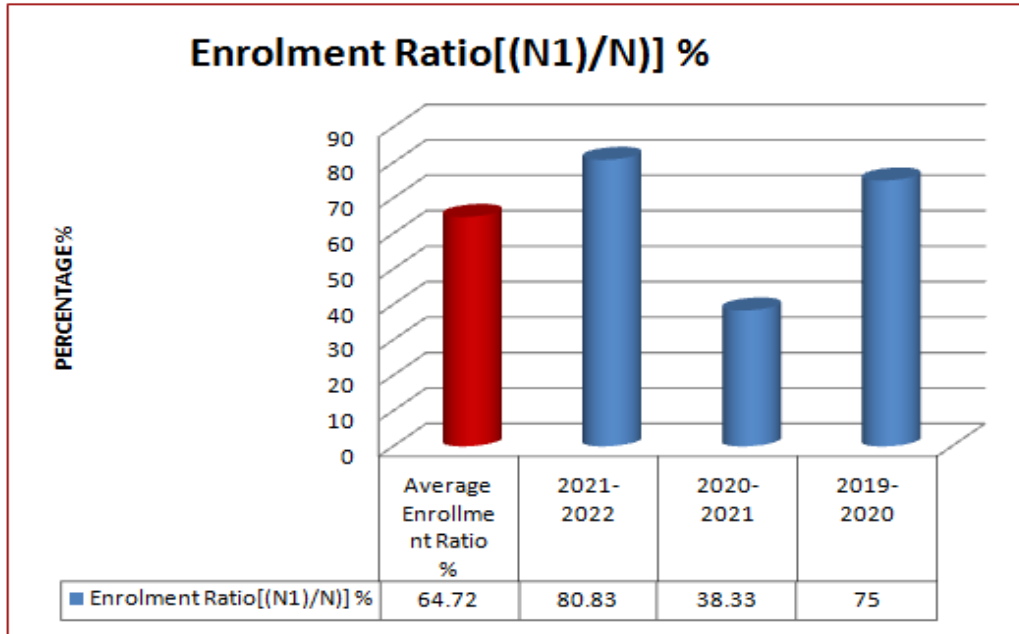


Figure B.4.1 Enrolment Ratio for the Last three Years

4.2 Success Rate in the stipulated period of the program (20)
Self Assessment (10.33)

4.2.1 Success rate without backlogs in any semester/year of study (15)
Self Assessment (6.352)

SI= (Number of students who have graduated from the program without backlog)/(Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable)

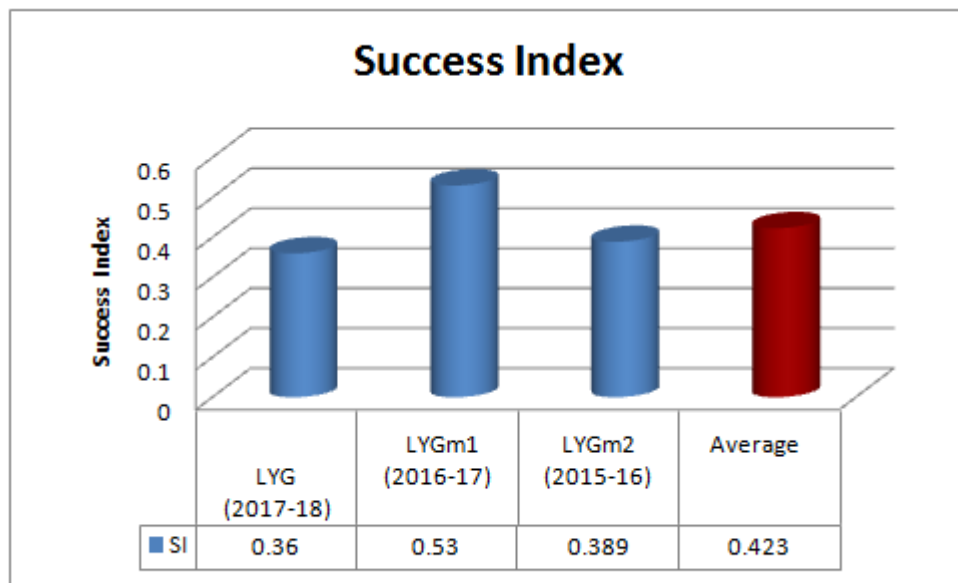
Average SI = Mean of Success Index (SI) for past three batches

Success rate without backlogs in any semester/year of study = 15 × Average SI



Table B.4.2.1 Success Rate without Backlogs in any Semester/ Year of Study

Item	Last Year of Graduate LYG (2017-18)	Last Year of Graduate LYGm1 (2016-17)	Last Year of Graduate LYGm2 (2015-16)
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	194	181	213
Number of students who have graduated without backlogs in the stipulated period	70	96	83
Success Index (SI)	0.36	0.53	0.389
	<i>Average SI</i>		0.4234
	<i>Success rate without backlogs in any semester/year of study=15*0.4234</i>		6.352



FigureB.4.2.1 Success Rate Without Backlogs in any Semester/ Year of Study

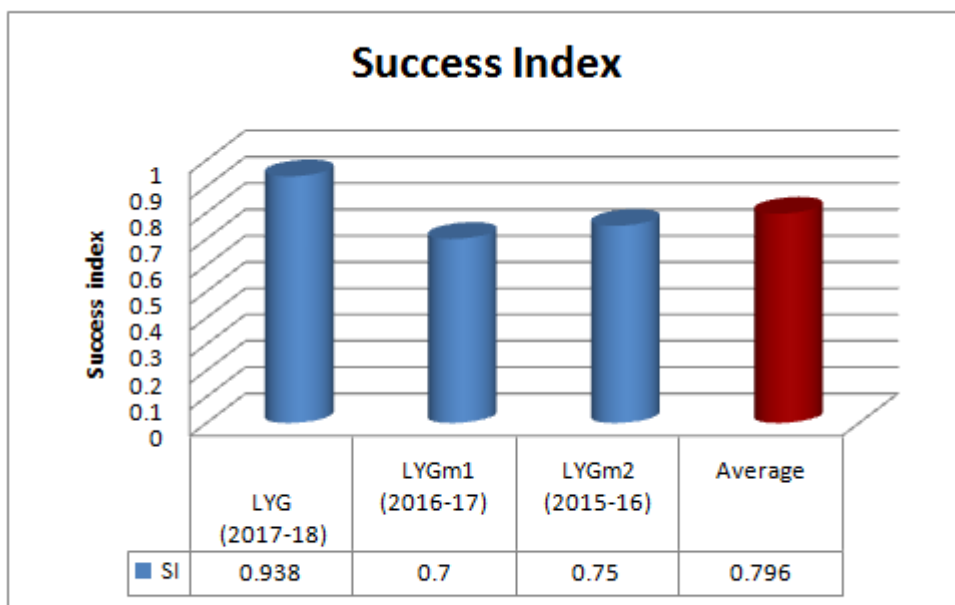
4.2.2 Success rate in stipulated period of study [with backlog + without backlog] (5)

Self Assessment (3.98)

$SI = (\text{Number of students who graduated from the program in the stipulated period of course duration}) / (\text{Number of students admitted in the first year of that batch and actually admitted in 2nd year via lateral entry and separate division, if applicable})$

Item	Last Year of Graduate LYG (2017-18)	Last Year of Graduate LYGm1 (2016-17)	Last Year of Graduate LYGm2 (2015-16)
Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	194	181	213
Number of students who have graduated in the stipulated period	182	127	159
Success Index (SI)	0.938	0.70	0.75
Average Success Index	0.796		
Success rate = 5 * Average SI = 5 * 0.796 = 3.98			

Average SI = mean of Success Index (SI) for past three batches



FigureB.4.2.2 Success rate in stipulated period of study [with backlog + without backlog]



4.3 Academic Performance in Second Year (10)**Self Assessment (10)**

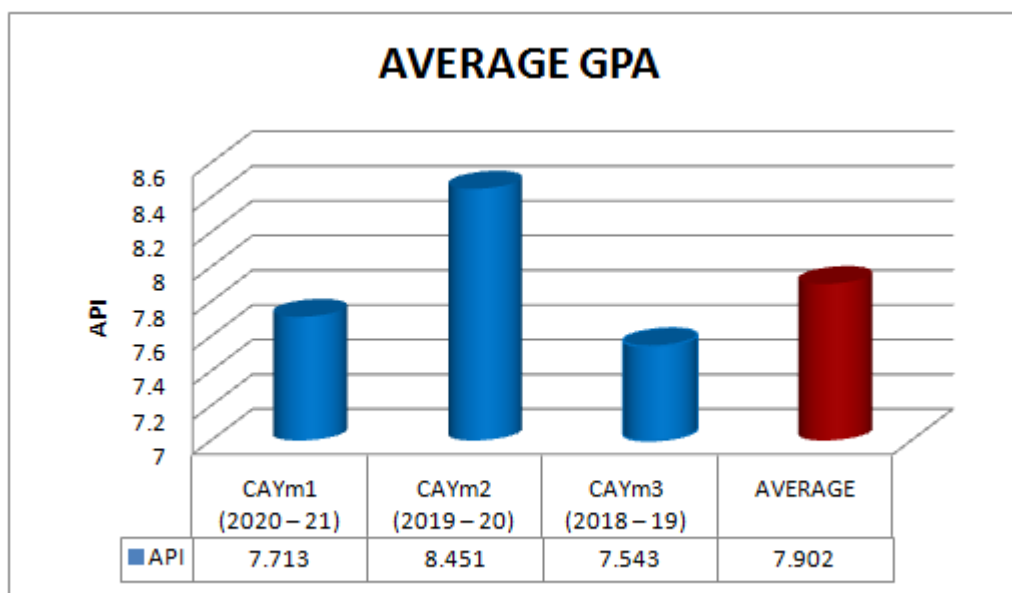
Academic Performance = Average API (Academic Performance Index), where

API = ((Mean of 2ndYear Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the Third year.

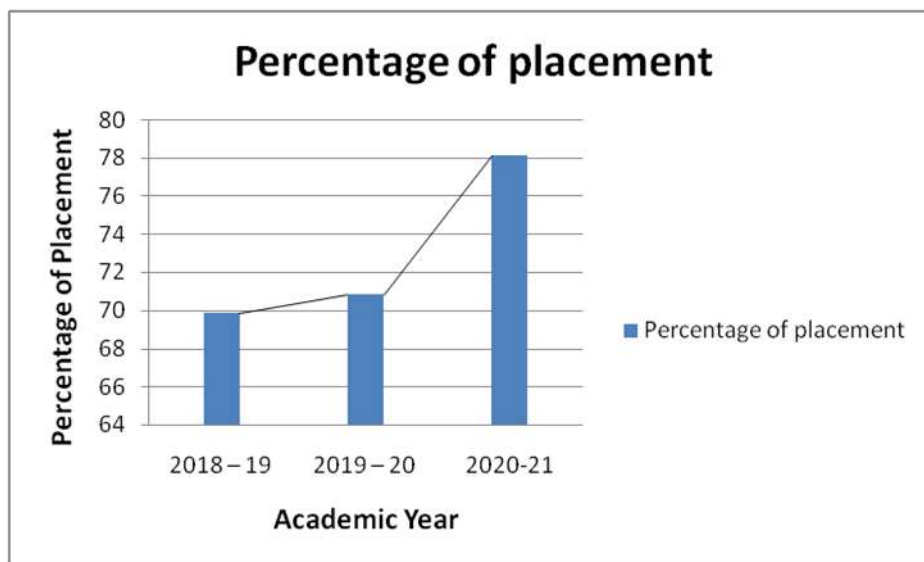
Table B.4.3 Academic Performance in Second Year

Academic Performance	CAYm1 (2020 – 21)	CAYm2 (2019 – 20)	CAYm3 (2018 – 19)
Mean of CGPA or Mean Percentage of all successful students (X)	7.986	8.518	7.543
Total no. of successful students (Y)	113	127	117
Total no. of students appeared in the examination (Z)	117	128	117
API = X* (Y/Z)	7.713	8.451	7.543
Average API = (AP1 + AP2 + AP3)/3	7.902		
API*1.5	11.853		

**Figure B.4.3 Academic Performance in Second Year**

4.4 Placement, Higher Studies and Entrepreneurship**(30)****Self Assessment (25.191)****Table B.4.4 Placement, Higher Studies and Entrepreneurship for past Three Years**

Item	CAYm1 2020 – 21	CAYm2 2019 – 20	CAYm3 2018 – 19
Total No. of Final Year Students (N)	183	175	199
No. of students placed in companies or Government Sector (x)	143	124	139
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.)(y)	10	2	6
No. of students turned entrepreneur in engineering/technology (z)	1	1	1
$x + y + z$	154	127	146
Placement Index : $(x + y + z)/N$	0.8415	0.7257	0.733
Average placement = $(P1 + P2 + P3)/3$	0.7667		
Assessment Points = $30 \times$ average placement	23.02		

**Figure B.4.4 Placement status for past Three Years**

4.4a. Provide the placement data in the below mentioned format with the name of the program and the assessment year:

4.4.1.a- Mechanical Department placement details for the academic year(2017-2018)

Mechanical Engineering (2017-2018)				
S.No	Name of the student placed	Enrollment No.	Name of the Industry	Appointment letter reference no. with date
1.	Deepakkumar E	14ME026	VEE Technologies	22.09.2017
2.	Farookjabbar A	14ME031	[24]7.ai	06.02.2018
3.	Jayakumar M	14ME043	Accenta Education	22.01.2018
4.	Jothiram S	14ME046	Alpha Associates	31.08.2017
5.	Karthick N	14ME054	Alpha Associates	31.08.2017
6.	Karthik S	14ME056	Alpha Associates	31.08.2017
7.	Karthik raja P	14ME058	Alpha Associates	31.08.2017
8.	Kavinkumar p v	14ME062	VEE Technologies	22.09.2017
9.	Kavinkumar T	14ME063	Amazon	04.01.2018
10.	Kumaravel B	14ME067	Alpha Associates	31.08.2017
11.	Sahilabinesh V	14ME104	ILM	05.02.2018
12.	Sivasankar P	14ME117	Frontier Knitters pvt. Ltd.	05.04.2018
13.	Surya chandran P	14ME128	Brightstar Education	06.02.2018
14.	Syed ashik A	14ME129	TechMill	17.05.2018
15.	Thangavel M	14ME134	Alpha Associates	31.08.2017
16.	Venkatesh K	14ME141	Brightstar Education	06.02.2018
17.	Vidhyasree A	14ME142	Schneider Electric	
18.	Sathishkumar. C	14ME109	Indo Shell Cast, Pvt Ltd. Coimbatore	02.01.2018
19.	Tamilselvan p	14ME131	Indo Shell Cast, Pvt Ltd. Coimbatore	02.01.2018
20.	Hariharan r s	14ME039	Indo Shell Cast, Pvt Ltd. Coimbatore	02.01.2018
21.	Chiffathulla J	14ME022	Indo Shell Cast, Pvt Ltd. Coimbatore	02.01.2018
22.	Elangovan M	14ME030	Indo Shell Cast, Pvt Ltd. Coimbatore	02.01.2018
23.	Gokul R	14ME034	Indo Shell Cast, Pvt Ltd. Coimbatore	02.01.2018
24.	Gowrimanohar P	14ME036	Indo Shell Cast, Pvt Ltd. Coimbatore	02.01.2018
25.	Jaseem Muhammed M	14ME042	Indo Shell Cast, Pvt Ltd. Coimbatore	02.01.2018



26.	Karthikeyan M	14ME057	Indo Shell Cast, Pvt Ltd. Coimbatore	02.01.2018
27.	Karthimani K	14ME059	Indo Shell Cast, Pvt Ltd. Coimbatore	02.01.2018
28.	Karuppusamy p	14ME060	Ram Dev, Motors, Coimbatore	27.12.2017
29.	Rajkumar. S	14ME096	Ram Dev, Motors, Coimbatore	27.12.2017
30.	Adiyaman K	14ME002	Ram Dev, Motors, Coimbatore	27.12.2017
31.	Arunprakash J	14ME018	Ram Dev, Motors, Coimbatore	27.12.2017
32.	Hariharan N	14ME038	Ram Dev, Motors, Coimbatore	27.12.2017
33.	Mohan kumar V	14ME078	Ram Dev, Motors, Coimbatore	27.12.2017
34.	Navinkumar M	14ME085	Ram Dev, Motors, Coimbatore	27.12.2017
35.	Balasagayaeswaran M	14ME019	Ram Dev, Motors, Coimbatore	27.12.2017
36.	Jeyanth S G	14ME045	Promech Industries Private Ltd	01.02.2018
37.	Madhankumar N	14ME068	Promech Industries Private Ltd	01.02.2018
38.	Mohan Raj S	14ME079	Promech Industries Private Ltd	01.02.2018
39.	Muthukumar E	14ME081	Promech Industries Private Ltd	01.02.2018
40.	Ramachandran R	14ME098	Promech Industries Private Ltd	01.02.2018
41.	Sankar R	14ME106	Promech Industries Private Ltd	01.02.2018
42.	Saravanakumar P	14ME108	Promech Industries Private Ltd	01.02.2018
43.	Karthick A.	14ME052	L G B Forge limited, Coimbatore	05.02.2018
44.	Prakash C	14ME091	L G B Forge limited, Coimbatore	05.02.2018
45.	Ramesh P.	14ME099	L G B Forge limited, Coimbatore	05.02.2018
46.	P.Ranjith Kumar	14ME102	L G B Forge limited, Coimbatore	05.02.2018
47.	G.Raja	14ME094	L G B Forge limited, Coimbatore	05.02.2018
48.	Suresh Kumar S.	14MEL56	L G B Forge limited, Coimbatore	05.02.2018
49.	Kathiravan P.	14MEL34	L G B Forge limited, Coimbatore	05.02.2018
50.	Arun T.	14MEL05	L G B Forge limited, Coimbatore	05.02.2018
51.	M.Muthu Kumar	14ME082	L G B Forge limited, Coimbatore	05.02.2018
52.	Senthil Kumar R	14ME111	L G B Forge limited, Coimbatore	05.02.2018
53.	Deva Kumar	14MEL14	L G B Forge limited, Coimbatore	05.02.2018

54.	Karthi S.	14MEL31	L G B Forge limited, Coimbatore	05.02.2018
55.	PandiyaRajan	14ME087	L G B Forge limited, Coimbatore	05.02.2018
56.	S.Aravinth	14ME011	L G B Forge limited, Coimbatore	05.02.2018
57.	Ragul Raj	14MEL47	L G B Forge limited, Coimbatore	05.02.2018
58.	Karnan	14ME049	L G B Forge limited, Coimbatore	05.02.2018
59.	Sugumar	14MEL55	L G B Forge limited, Coimbatore	05.02.2018
60.	Jaya Suriya	14ME044	L G B Forge limited, Coimbatore	05.02.2018
61.	Sozhapandiyam	14ME119	L G B Forge limited, Coimbatore	05.02.2018
62.	Manojkumar R	14ME075	L G B Forge limited, Coimbatore	05.02.2018
63.	Ajithkumar	14ME005	L G B Forge limited, Coimbatore	05.02.2018
64.	Murugeswaran	14MEL42	L G B Forge limited, Coimbatore	05.02.2018
65.	Suresh kumar. K	14ME127	L G B Forge limited, Coimbatore	05.02.2018
66.	Praveen kumar	14ME092	L G B Forge limited, Coimbatore	05.02.2018
67.	Dheenadhayalan	14ME028	L G B Forge limited, Coimbatore	05.02.2018
68.	Nandhakumar R	14ME083	L G B Forge limited, Coimbatore	05.02.2018
69.	Manivasagam K	14ME074	L G B Forge limited, Coimbatore	05.02.2018
70.	Bhuvanesh-wharan R	14ME021	L G B Forge limited, Coimbatore	05.02.2018
71.	Parameshprabhu S	14ME088	L G B Forge limited, Coimbatore	05.02.2018
72.	Srimilan T	13ME133	L G B Forge limited, Coimbatore	05.02.2018
73.	Kathirvel R	14ME061	L G B Forge limited, Coimbatore	05.02.2018
74.	Agathiyam P	14ME003	L G B Forge limited, Coimbatore	05.02.2018
75.	Karthick B	14ME053	L G B Forge limited, Coimbatore	05.02.2018
76.	Jaganvijay R	14ME040	L G B Forge limited, Coimbatore	05.02.2018
77.	Dhanabal M	14ME027	L G B Forge limited, Coimbatore	05.02.2018



78.	Kalifulrahman. S	14MEL30	L G B Forge limited, Coimbatore	05.02.2018
79.	Kavin R	14ME065	L G B Forge limited, Coimbatore	05.02.2018
80.	Elangovan M	14MEL18	Laxmi Precision Tools, Limited	13.02.2018
81.	Sivasubramani S	14ME118	Laxmi Precision Tools, Limited	13.02.2018
82.	Vignesh K	14ME146	Laxmi Precision Tools, Limited	13.02.2018
83.	Vijayakumar M	14ME149	Laxmi Precision Tools, Limited	13.02.2018
84.	Deepak k ganeshan	14MEL12	Laxmi Precision Tools, Limited	13.02.2018
85.	Ajith B	14ME004	Laxmi Precision Tools, Limited	13.02.2018
86.	Arun M	14ME014	Laxmi Precision Tools, Limited	13.02.2018
			Limited	
87.	Deepak kumar R	14ME024	Laxmi Precision Tools, Limited	13.02.2018
88.	Ponraj B	14ME090	Laxmi Precision Tools, Limited	13.02.2018
89.	Vanaraja A	14ME138	Laxmi Precision Tools, Limited	13.02.2018
90.	Sasidharan S	14MEL50	Laxmi Precision Tools, Limited	13.02.2018
91.	Dharmarajan. V.G	14MEL15	Laxmi Precision Tools, Limited	13.02.2018
92.	Dhibahar. S	14MEL17	Laxmi Precision Tools, Limited	13.02.2018
93.	Gopinath. T	14MEL21	Laxmi Precision Tools, Limited	13.02.2018
94.	Jaganath. P	14MEL23	Laxmi Precision Tools, Limited	13.02.2018
95.	Jakan Prathap. S	14MEL25	Laxmi Precision Tools, Limited	13.02.2018
96.	Ram kumar T	14ME097	Fortune Infra Structural, Mysore	10.04.2018
97.	Mahendiran M	14ME071	Fortune Infra Structural, Mysore	10.04.2018
98.	Siva Balan T	14ME113	Fortune Infra Structural, Mysore	10.04.2018
99.	Shathriyan T	14ME112	Fortune Infra Structural, Mysore	10.04.2018
100.	Sivaprakash G	14ME114	Fortune Infra Structural, Mysore	10.04.2018
101.	Sivasankar P	14ME116	Fortune Infra Structural, Mysore	10.04.2018

102.	Sreekamnath P	14ME120	Fortune Infra Structural, Mysore	10.04.2018
103.	Srihari S S	14ME123	Fortune Infra Structural, Mysore	10.04.2018
104.	Vignesh S	14ME144	L G B Fine Product Division, Coimbatore	26.02.2018
105.	Mohan G	14ME080	L G B Fine Product Division, Coimbatore	26.02.2018
106.	Arunkumar (26.04.1997) S	14ME017	L G B Fine Product Division, Coimbatore	26.02.2018
107.	Vijayakumar. P	14MEL60	L G B Fine Product Division, Coimbatore	26.02.2018
108.	Ramesh G	14ME100	L G B Fine Product Division, Coimbatore	26.02.2018
109.	Ajith M	14ME006	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
110.	Ponshankar. M	14MEL46	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
111.	Akash J	14ME008	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
112.	Mahaduraisamy p	14ME070	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
113.	Thamizharasan V	14ME133	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
114.	Vasanth S	14ME139	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
115.	Vignesh A	14ME145	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
116.	Winmugil M	14ME153	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
117.	Alagu Sengottaiyan. N	14MEL02	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
118.	Aravindh. P	14MEL04	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
119.	Boobalan. P	14MEL10	Precision EquipmentsPVtT Ltd, Porur, Chennai	21.06.2018
120.	Akilan R	14ME009	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
121.	Thamilzharasan S	14ME132	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
122.	Arunkumar V	14ME015	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
123.	Mahendiran S	14ME072	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
124.	Naveen S	14ME084	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
125.	Palanisamy V	14ME086	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018

126.	Rahul G	14ME093	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
127.	Umarmuqtar S	14ME137	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
128.	Vignesh J	14ME143	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
129.	Aravind. S	14MEL03	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
130.	Karthi. V	14MEL32	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
131.	Jeeva.V	14MEL26	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
132.	Jeeva Bharathi. C	14MEL27	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
133.	Karthik. C	14MEL33	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
134.	Kavin. K	14MEL35	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
135.	Manikandan. M	14MEL38	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
136.	Manoj Kumar. B	14MEL39	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
137.	Manoj .S	14MEL40	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
138.	Naveen. S	14MEL43	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
139.	Ranjith Kumar. T	14MEL49	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
140.	Sridhar. S	14MEL53	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
141.	Tamilarasu. S	14MEL58	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018
142.	Venkatesan. M	14MEL59	Arsh Roll Forming Pvt Ltd, Coimbatore	13.04.2018

4.4.1.b- Mechanical Department placement details for the academic year(2018-2019)

Mechanical Engineering (2018-2019)				
S.No	Name of the student placed	Enrollment No.	Name of the Industry	Appointment letter reference no. with date
1.	Karthick.s (14.09.1997)	15ME065	WICE	20.02.2019
2.	Karthik raja V	15ME066	COGNIZANT	21.01.2019
3.	Karthikeyan.R	15ME069	Appranix	13.02.2019
4.	Prawinkamashi K	15ME120	KGiSL	30.01.2019
5.	Ragu raam. J	15ME121	Vee Tech Healthcare	19.02.2019
6.	Sakthivel.S	15ME136	Savvysoft	17.12.2018



7.	Nithin C R	15ME105	AB Academy	25.09.2018
8.	Akilan.S	15ME006	L G Balakrishnan & Bros. Ltd	21.03.2019
9.	Arun V	15ME013	L G Balakrishnan & Bros. Ltd	21.03.2019
10.	Balachandar E	15ME017	L G Balakrishnan & Bros. Ltd	21.03.2019
11.	Boopathi.A	15ME020	L G Balakrishnan & Bros. Ltd	21.03.2019
12.	Dinesh G	15ME028	L G Balakrishnan & Bros. Ltd	21.03.2019
13.	Dinesh kumar.M (30.05.1998)	15ME030	L G Balakrishnan & Bros. Ltd	21.03.2019
14.	Divakar.K	15ME034	L G Balakrishnan & Bros. Ltd	21.03.2019
15.	Gnanasekar.S	15ME040	L G Balakrishnan & Bros. Ltd	21.03.2019
16.	Gokulnath K S	15ME046	L G Balakrishnan & Bros. Ltd	21.03.2019
17.	Gokulprakash.E	15ME047	L G Balakrishnan & Bros. Ltd	21.03.2019
18.	Guruprasath M	15ME054	L G Balakrishnan & Bros. Ltd	21.03.2019
19.	Jaya surya S	15ME058	L G Balakrishnan & Bros. Ltd	21.03.2019
20.	Manojkumar.T	15ME085	L G Balakrishnan & Bros. Ltd	21.03.2019
21.	Mathankumar.R	15ME090	L G Balakrishnan & Bros. Ltd	21.03.2019
22.	Mouleeswaran V P	15ME092	L G Balakrishnan & Bros. Ltd	21.03.2019
23.	Nithyananth G	15ME106	L G Balakrishnan & Bros. Ltd	21.03.2019
24.	Ranjeethkumar.N	15ME128	L G Balakrishnan & Bros. Ltd	21.03.2019
25.	Sakthivel A	15ME135	L G Balakrishnan & Bros. Ltd	21.03.2019
26.	Shanjithkrishna R	15ME147	L G Balakrishnan & Bros. Ltd	21.03.2019
27.	Tharunprasad.P	15ME160	L G Balakrishnan & Bros. Ltd	21.03.2019
28.	Vasanth.K	15ME161	L G Balakrishnan & Bros. Ltd	21.03.2019
29.	Venkatesh.B	15ME163	L G Balakrishnan & Bros. Ltd	21.03.2019
30.	Vijayaprakash P	15ME167	L G Balakrishnan & Bros. Ltd	21.03.2019
31.	Vikneshwaran.E	15ME168	L G Balakrishnan & Bros. Ltd	21.03.2019
32.	Karthy S	15MEL10	L G Balakrishnan & Bros. Ltd	21.03.2019
33.	Karthick K	15MEL11	L G Balakrishnan & Bros. Ltd	21.03.2019
34.	Naveen V	15MEL18	L G Balakrishnan & Bros. Ltd	21.03.2019
35.	Rohit CB	15MEL24	L G Balakrishnan & Bros. Ltd	21.03.2019
36.	Santhosh A	15MEL27	L G Balakrishnan & Bros. Ltd	21.03.2019
37.	Shanmugasundaram K	15MEL29	L G Balakrishnan & Bros. Ltd	21.03.2019
38.	Arunkumar G	15ME011	Lakshmi Precision Tools Ltd	21.03.2019
39.	Karuppusamy.R	15ME071	Lakshmi Precision Tools Ltd	21.03.2019
40.	Kavin.B	15ME075	Lakshmi Precision Tools Ltd	21.03.2019
41.	Krishna moorthy.S	15ME077	Lakshmi Precision Tools Ltd	21.03.2019
42.	Pattusamy.A	15ME108	Lakshmi Precision Tools Ltd	21.03.2019
43.	Poornachandran T	15ME112	Lakshmi Precision Tools Ltd	21.03.2019
44.	Sasikanth D	15MEL28	Lakshmi Precision Tools Ltd	21.03.2019
45.	Gowtham D	15ME050	Sundaram Fasteners Chennai	26.02.2019
46.	Joyaljerome	15ME059	Sundaram Fasteners Chennai	26.02.2019
47.	Mukeshkannan R	15ME093	Sundaram Fasteners Chennai	26.02.2019
48.	Prabanjan S	15ME115	Sundaram Fasteners Chennai	26.02.2019
49.	Pravinkumar S	15ME119	Sundaram Fasteners Chennai	26.02.2019
50.	Sabari Nathan M	15ME132	Sundaram Fasteners Chennai	26.02.2019
51.	Sanjaykumar K	15ME138	Sundaram Fasteners Chennai	26.02.2019
52.	Sapiknizam m I	15ME140	Sundaram Fasteners Chennai	26.02.2019
53.	Sathishkumar S	15ME144	Sundaram Fasteners Chennai	26.02.2019



54.	Sivakumar K	15ME151	Sundaram Fasteners Chennai	26.02.2019
55.	Sivamani D	15ME152	Sundaram Fasteners Chennai	26.02.2019
56.	Vellingiri A	15ME162	Sundaram Fasteners Chennai	26.02.2019
57.	Mohan kumar N	15MEL14	Sundaram Fasteners Chennai	26.02.2019
58.	Sangeethkumar C	15MEL26	Sundaram Fasteners Chennai	26.02.2019
59.	Ajith R	15ME004	Aquajet Machine Tools	16.03.2019
60.	Baskaran A	15ME019	Aquajet Machine Tools	16.03.2019
61.	Vinothkumar S	15ME171	Aquajet Machine Tools	16.03.2019
62.	Vinothkumar.M	15ME172	Aquajet Machine Tools	16.03.2019
63.	Vinothkumar.R	15ME173	Aquajet Machine Tools	16.03.2019
64.	Kartheekraja.U	15ME061	Precision Machines and Equipments Pvt. Ltd	14.02.2019
65.	Rajapandiyam.R	15ME125	Precision Machines and Equipments Pvt. Ltd	14.02.2019
66.	Sivasubramanian.R	15ME153	Precision Machines and Equipments Pvt. Ltd	14.02.2019
67.	Suresh kumar P	15ME157	Precision Machines and Equipments Pvt. Ltd	14.02.2019
68.	Akashkumar.S	15ME005	Precision Machines and Equipments Pvt. Ltd	14.02.2019
69.	Arun Kumar.S	15ME012	Precision Machines and Equipments Pvt. Ltd	14.02.2019
70.	Chandru.V	15ME022	Precision Machines and Equipments Pvt. Ltd	14.02.2019
71.	Dinesh Kumar.M (16-07-1998)	15ME029	Precision Machines and Equipments Pvt. Ltd	14.02.2019
72.	Gopalakrishnan V	15ME049	Precision Machines and Equipments Pvt. Ltd	14.02.2019
73.	Hariharan.M	15ME055	Precision Machines and Equipments Pvt. Ltd	14.02.2019
74.	Sharan.K	15ME149	go speedy Go	18.12.2018
75.	Dhanraj P	15ME025	Nouvexindustires, Kangayam	01.07.2019
76.	Gobi R	15ME041	Nouvexindustires, Kangayam	01.07.2019
77.	Gokulraj.M	15ME048	Nouvexindustires, Kangayam	01.07.2019
78.	Karikalan S	15ME060	Nouvexindustires	01.07.2019
79.	Karthikeyan. S (04.03.1998)	15ME068	Nouvexindustires	01.07.2019
80.	Madhanmohan R S	15ME081	Nouvexindustires	01.07.2019
81.	Manoj Prabakkar P.S	15ME086	Nouvexindustires	01.07.2019
82.	Manoj.M	15ME087	Nouvexindustires	01.07.2019
83.	Manoj.S	15ME088	Nouvexindustires	01.07.2019
84.	Nanthakumar.R	15ME097	Nouvexindustires	01.07.2019
85.	Renuka M	15ME129	Sri Krishna Industries, Vijayamangalam	02.01.2019
86.	Sridhar C	15ME155	Sri Krishna Industries, Vijayamangalam	02.01.2019
87.	Vimalraj P	15ME170	Sri Krishna Industries, Vijayamangalam	02.01.2019

88.	Nizamdeen.J.	15ME107	Sri Krishna Industries, Vijayamangalam	02.01.2019
89.	Peruncheraladhan.G	15ME109	Sri Krishna Industries, Vijayamangalam	02.01.2019
90.	Pitchaimani.A	15ME110	Sri Krishna Industries, Vijayamangalam	02.01.2019
91.	Ponvivek V	15ME111	Sri Krishna Industries, Vijayamangalam	02.01.2019
92.	Praveen.S	15ME117	Sri Krishna Industries, Vijayamangalam	02.01.2019
93.	Praveenkumar P	15ME118	Sri Krishna Industries, Vijayamangalam	02.01.2019
94.	Ragunath.M	15ME124	Sri Krishna Industries, Vijayamangalam	02.01.2019
95.	Rajesh J	15ME126	Sri Krishna Industries, Vijayamangalam	02.01.2019
96.	Sabarimoorthy.S	15ME131	Sri Krishna Industries, Vijayamangalam	02.01.2019
97.	Saddiq.M	15ME133	Sri Krishna Industries, Vijayamangalam	02.01.2019
98.	Sampathkumar.R	15ME137	Sri Krishna Industries, Vijayamangalam	02.01.2019
99.	Sathish Kumar P	15ME142	Sri Krishna Industries, Vijayamangalam	02.01.2019
100.	Gokul C	15ME043	NCR Corporation Chennai	01.04.2019
101.	Vimal D	15MEL36	NCR Corporation Chennai	01.04.2019
102.	Ruban raja G	15MEL25	NCR Corporation Chennai	01.04.2019
103.	Gobinath M	15ME042	NCR Corporation Chennai	01.04.2019
104.	Ahildarshan K	15ME003	NCR Corporation Chennai	01.04.2019
105.	Naveenkumar.K.C	15ME102	NCR Corporation Chennai	01.04.2019
106.	Dhanasheelan K M	15ME024	NCR Corporation Chennai	01.04.2019
107.	Vignesh K	15ME164	NCR Corporation Chennai	01.04.2019
108.	Gokul R	15ME044	NCR Corporation Chennai	01.04.2019
109.	Gokul.R	15ME045	NCR Corporation Chennai	01.04.2019
110.	Kesavamoorthy R	15ME076	NCR Corporation Chennai	01.04.2019
111.	Ghereesh R R	15ME039	NCR Corporation Chennai	01.04.2019
112.	Ruthreshan.S	15ME130	NCR Corporation Chennai	01.04.2019
113.	Santhosh S	15ME139	NCR Corporation Chennai	01.04.2019
114.	Enamullah T	15ME036	NCR Corporation Chennai	01.04.2019



115.	Naveen T	15ME101	NCR Corporation Chennai	01.04.2019
116.	Dinesh Y	15ME032	NCR Corporation Chennai	01.04.2019
117.	Gowtham R	15MEL07	NCR Corporation Chennai	01.04.2019
118.	Gugan K	15MEL08	NCR Corporation Chennai	01.04.2019
119.	Karthick P	15MEL12	NCR Corporation Chennai	01.04.2019
120.	Naveen R	15MEL17	NCR Corporation Chennai	01.04.2019
121.	Prakash Babu R	15MEL21	NCR Corporation Chennai	01.04.2019
122.	Praveen Kumar A	15MEL22	NCR Corporation Chennai	01.04.2019
123.	Ravikumar G	15MEL23	NCR Corporation Chennai	01.04.2019
124.	Srijesh S	15MEL30	NCR Corporation Chennai	01.04.2019
125.	Varatharaj L	15MEL33	NCR Corporation Chennai	01.04.2019
126.	Naveen kumar V	15MEL19	CRI Pump, Coimbatore	14.05.2019
127.	Vineethkumar G	15MEL37	CRI Pump, Coimbatore	14.05.2019
128.	Kavinkumar S	15ME073	CRI Pump, Coimbatore	14.05.2019
129.	Karthick D	15ME062	CRI Pump, Coimbatore	14.05.2019
130.	Poovananthan R	15ME113	CRI Pump, Coimbatore	14.05.2019
131.	Sathishkumar M	15ME143	CRI Pump, Coimbatore	14.05.2019
132.	Shreegahun A	15ME150	CRI Pump, Coimbatore	14.05.2019
133.	Sridhar M	15ME154	CRI Pump, Coimbatore	14.05.2019
134.	Thandapani.K	15ME159	CRI Pump, Coimbatore	14.05.2019
135.	Vijay.K.S	15ME166	CRI Pump, Coimbatore	14.05.2019
136.	Vimal M	15ME169	CRI Pump, Coimbatore	14.05.2019
137.	Aravindhnan M	15MEL01	CRI Pump, Coimbatore	14.05.2019
138.	Elavarasan P	15MEL02	CRI Pump, Coimbatore	14.05.2019
139.	Gowtham A	15MEL05	CRI Pump, Coimbatore	14.05.2019



4.4.1.c- Mechanical Department placement details for the academic year (2019-2020)

Mechanical Engineering (2019-2020)				
S.No	Name of the student placed	Enrollment No.	Name of the Industry	Appointment letter reference no. with date
1.	Kavinkumar M S	16ME053	COGNIZANT	11.10.2019
2.	Mouli P	16ME070	COGNIZANT	11.10.2019
3.	Naveen kumar S	16ME074	COGNIZANT	11.10.2019
4.	Prakash S	16ME092	TCS	03.08.2019
5.	Pranesh S	16ME093	COGNIZANT	11.10.2019
6.	Prasanth K (24-08-1998)	16ME094	WEBBERAX	10.02.2020
7.	Prasanth.K (18-07-1999)	16ME095	COGNIZANT	11.10.2019
8.	Praveen R	16ME098	COGNIZANT	11.10.2019
9.	Rajeshkumar S	16ME106	TUTICORIN ALKALI CHEMICALS & FERTILIZERS	24.01.2020
10.	Viknesvarar S	16ME147	COGNIZANT	11.10.2019
11.	Gunasekaran S	16ME034	NCR Corporation Chennai	01.10.2019
12.	Raghul P	16ME104	NCR Corporation Chennai	01.10.2019
13.	Visnu M R	16ME149	NCR Corporation Chennai	01.10.2019
14.	Dharunsankar.M	16ME021	NCR Corporation Chennai	01.10.2019
15.	Kavin G	16ME052	NCR Corporation Chennai	01.10.2019
16.	Ram prasanth K	16ME108	NCR Corporation Chennai	01.10.2019
17.	Sam titus G	16ME117	NCR Corporation Chennai	01.10.2019
18.	Srinath V	16ME137	NCR Corporation Chennai	01.10.2019
19.	Vignesh.S	16MEL27	NCR Corporation Chennai	01.10.2019
20.	Adarsh Chandran VP	16ME004	NCR Corporation Chennai	01.10.2019
21.	Anjith Kumar C	16ME007	NCR Corporation Chennai	01.10.2019
22.	Arunkumar M	16ME010	NCR Corporation Chennai	01.10.2019
23.	Aswin V P	16ME011	NCR Corporation Chennai	01.10.2019
24.	Bharathi R	16ME015	NCR Corporation Chennai	01.10.2019
25.	Deepak Senthilkumar B	16ME018	NCR Corporation Chennai	01.10.2019
26.	Dilipkannan.M	16ME023	NCR Corporation Chennai	01.10.2019
27.	Dineshkumar.T	16ME024	NCR Corporation Chennai	01.10.2019
28.	Anbazhagan B	16ME006	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
29.	Revanth S	16ME112	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
30.	Sudhagar B	16ME138	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
31.	Praveen kumar R	16ME096	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
32.	Franklin S	16ME025	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
33.	Gokulrokith M	16ME031	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
34.	Hariharan R	16ME038	Hindustan Foods Pvt Ltd	22.11.2019



			Coimbatore	
35.	Karthik S (23-12-1998)	16ME048	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
36.	Karthikraja A	16ME050	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
37.	Lino John Abraham A	16ME056	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
38.	Logesh.R	16ME057	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
39.	Logesh V	16ME058	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
40.	Maheshwaran C	16ME061	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
41.	Mohandass S	16ME068	Hindustan Foods Pvt Ltd Coimbatore	22.11.2019
42.	Aravind.S	16ME008	K R Fuels Trichy	13.12.2019
43.	Avinash C M	16ME012	K R Fuels Trichy	13.12.2019
44.	Bhuvaneshwaran G	16ME016	K R Fuels Trichy	13.12.2019
45.	Jeganathan.V	16ME044	K R Fuels Trichy	13.12.2019
46.	Karthik.S (16-05-1999)	16ME049	K R Fuels Trichy	13.12.2019
47.	Kavin raj R	16ME051	K R Fuels Trichy	13.12.2019
48.	Manojkumar K	16ME064	K R Fuels Trichy	13.12.2019
49.	Mohanraj S	16ME069	K R Fuels Trichy	13.12.2019
50.	Mowleeswaran R	16ME072	K R Fuels Trichy	13.12.2019
51.	Nishanth L	16ME080	K R Fuels Trichy	13.12.2019
52.	Dhineshkumar C	16MEL02	K R Fuels Trichy	13.12.2019
53.	Mahendrakumar S	16MEL12	K R Fuels Trichy	13.12.2019
54.	Rajesh R	16MEL20	K R Fuels Trichy	13.12.2019
55.	Vijayakumar.R	16MEL29	K R Fuels Trichy	13.12.2019
56.	Naveen Kumar M	16ME077	K R Fuels Trichy	13.12.2019
57.	Ponshankar B	16ME085	K R Fuels Trichy	13.12.2019
58.	Praveen K	16ME097	K R Fuels Trichy	13.12.2019
59.	Raj Kumar J	16ME105	K R Fuels Trichy	13.12.2019
60.	Ranjith P	16ME109	K R Fuels Trichy	13.12.2019
61.	Sakuntalanand.M	16ME115	K R Fuels Trichy	13.12.2019
62.	Sanjaykanth A	16ME119	K R Fuels Trichy	13.12.2019
63.	Santhosh GUHAN S	16ME121	K R Fuels Trichy	13.12.2019
64.	Saran S P	16ME124	K R Fuels Trichy	13.12.2019
65.	V.divakar	16MEL03	TUTICORIN ALKALI CHEMICALS & FERTILIZERS	24.01.2020
66.	Jeevanantham M	16MEL09	TUTICORIN ALKALI CHEMICALS & FERTILIZERS	24.01.2020
67.	Mithiran.M	16MEL15	TUTICORIN ALKALI CHEMICALS & FERTILIZERS	24.01.2020
68.	Hariharan S	16ME039	Indoshell Cast Private Ltd	04.02.2020



			Coimbatore	
69.	Navaneethan J	16ME073	Indoshell Cast Private Ltd Coimbatore	04.02.2020
70.	Naveen C	16ME075	Indoshell Cast Private Ltd Coimbatore	04.02.2020
71.	Sasikumar A	16ME127	Indoshell Cast Private Ltd Coimbatore	04.02.2020
72.	Suriyakumaran E	16ME140	Indoshell Cast Private Ltd Coimbatore	04.02.2020
73.	Saravanan K M	16ME126	Indoshell Cast Private Ltd Coimbatore	04.02.2020
74.	Sathishkumar K	16ME129	Indoshell Cast Private Ltd Coimbatore	04.02.2020
75.	Sathya Narayanan.N	16ME131	Indoshell Cast Private Ltd Coimbatore	04.02.2020
76.	Shantha Kumar.C.M	16ME134	Indoshell Cast Private Ltd Coimbatore	04.02.2020
77.	Vignes Hguhan E	16ME144	Indoshell Cast Private Ltd Coimbatore	04.02.2020
78.	Yogeshwaran B	16ME150	Indoshell Cast Private Ltd Coimbatore	04.02.2020
79.	Deepan Chakkaravar S	16MEL01	Indoshell Cast Private Ltd Coimbatore	04.02.2020
80.	Ajith.P	16ME005	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
81.	Dharanidharan M	16ME020	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
82.	Gokulprasanth.A	16ME028	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
83.	Gokulprasath M	16ME029	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
84.	Gowtham.S	16ME033	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
85.	Harishankar.M	16ME040	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
86.	Manojkumar.U	16ME065	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
87.	Nisanth.S	16ME079	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
88.	Poovarasam S	16ME086	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
89.	Ranjithkumar D	16ME110	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
90.	Santhoshkumar S	16ME122	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
91.	Tamilselvan B	16ME141	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
92.	Gopiraja K	16MEL06	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020



93.	Kalaiarasan M	16MEL10	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
94.	Karthick K	16MEL11	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
95.	Mathesan R	16MEL14	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
96.	Srinivasaperumal P	16MEL23	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
97.	Vijay P	16MEL28	L G Balakrishnan & Bros Ltd Coimbatore	15.02.2020
98.	Kishore.S.R	16ME055	Peicision tools and Equipments, Chennai	24.12.2019
99.	Pavanpravinraaja G V	16ME084	Peicision tools and Equipments, Chennai	24.12.2019
100.	Raghul G	16ME103	Peicision tools and Equipments, Chennai	24.12.2019
101.	Sam robin son R	16ME116	Peicision tools and Equipments, Chennai	24.12.2019
102.	Saravanakumar P	16ME125	Peicision tools and Equipments, Chennai	24.12.2019
103.	Surendhar S	16ME139	Peicision tools and Equipments, Chennai	24.12.2019
104.	Gowrishankar R	16MEL07	Peicision tools and Equipments, Chennai	24.12.2019
105.	Manibarathi B	16MEL13	Peicision tools and Equipments, Chennai	24.12.2019
106.	Raja Sreethar.K	16MEL19	Peicision tools and Equipments, Chennai	24.12.2019
107.	Bharanidharan S	16ME014	CRI Pump Pvt Ltd, Coimbatore	27.05.2020
108.	Gobi krishnan.R	16ME027	CRI Pump Pvt Ltd, Coimbatore	27.05.2020
109.	Premkumar R	16ME101	CRI Pump Pvt Ltd, Coimbatore	27.05.2020
110.	Sathesh N	16ME128	CRI Pump Pvt Ltd, Coimbatore	27.05.2020
111.	Thamaraikannan R	16ME142	CRI Pump Pvt Ltd, Coimbatore	27.05.2020
112.	Vigneshwaran K	16ME145	CRI Pump Pvt Ltd, Coimbatore	27.05.2020
113.	Vikneshraghav S G	16ME146	CRI Pump Pvt Ltd, Coimbatore	27.05.2020
114.	Gowtham .B	16MEL08	CRI Pump Pvt Ltd, Coimbatore	27.05.2020
115.	Rubinkumar R	16MEL22	CRI Pump Pvt Ltd, Coimbatore	27.05.2020
116.	Venkateshwaran M	16MEL26	CRI Pump Pvt Ltd, Coimbatore	27.05.2020
117.	Abishek J	16ME002	HCL , Chennai	20.02.2021

118.	Gandhiraj S	16ME026	HCL , Chennai	20.02.2021
119.	Inzamamulhaq.S	16ME043	HCL , Chennai	20.02.2021
120.	Jeyakrishnan S	16ME045	HCL , Chennai	20.02.2021
121.	Manikandan R	16ME063	HCL , Chennai	20.02.2021
122.	Rakesh S	16ME107	HCL , Chennai	20.02.2021
123.	Sakthivel P	16ME114	HCL , Chennai	20.02.2021
124.	Thiruppathivenkatesh S	16MEL25	HCL , Chennai	20.02.2021

4.4.1.d- Mechanical Department placement details for the academic year(2020-2021)

Mechanical Engineering (2020-2021)

S.No	Name of the student placed	Enrollment No.	Name of the Industry	Appointment letter reference no. with date
1.	Abdulajece A	17ME001	LGB, Coimbatore	20.08.2021
2.	Abishek E	17ME002	TVS, UPASANA HOSUR	11.01.2021
3.	Agilan A	17ME003	LGB, Coimbatore	20.08.2021
4.	Ahish V S	17ME004	LGB, Coimbatore	20.08.2021
5.	Ajaykrishnan D	17ME005	Indoshell Cast, Coimbatore	09.06.2021
6.	Akash Mahendran	17ME006	Renault Nissan, Chennai	20.08.2021
7.	Akilan D	17ME007	LGB, Coimbatore	10.05.2021
8.	Aravind A L	17ME008	SAW Exports	20.08.2021
9.	Arulselvan S	17ME009	LGB, Coimbatore	20.08.2021
10.	Arunprasath A K	17ME011	LGB, Coimbatore	20.08.2021
11.	Arunraja A	17ME012	IAMNEO.AI	09.03.2021
12.	Arvind r B	17ME013	LGB, Coimbatore	14.07.2021
13.	Deebakkumar N	17ME018	KTT Elematic Shankari	10.05.2021
14.	Desaiya K	17ME019	LGB, Coimbatore	20.08.2021
15.	Devaprabhu M S	17ME020	LGB, Coimbatore	20.08.2021
16.	Dhana praveen M	17ME021	TVS, UPASANA HOSUR	11.01.2021
17.	Dhanush kumaar G	17ME022	LGB, Coimbatore	20.08.2021
18.	Dhinesh babu S	17ME023	LGB, Coimbatore	20.08.2021
19.	Dinesh kumar G	17ME024	LGB, Coimbatore	20.08.2021
20.	Dinesh S	17ME025	LGB, Coimbatore	20.08.2021
21.	Giri shankar S	17ME027	Agri world	10.05.2021
22.	Giridharan thiruvadi I	17ME028	Ucals Fuel Systems Chennai	05.04.2021
23.	Gobinath D	17ME029	Precision Equipments Chennai	15.08.2021
24.	Gobinath N M	17ME030	Sakthi Auto component	23.07.2021
25.	Gokulam M	17ME031	TVS, UPASANA HOSUR	11.01.2021
26.	Gokulnath K	17ME032	FOCUS EDUMATICS	18.12.2020
27.	Gopi V	17ME033	K R Fuels. Thichy	20.05.2021
28.	Gowri sankar N	17ME034	Indoshell Cast, Coimbatore	09.06.2021
29.	Gowtham G	17ME035	Renault Nissan, Chennai	14.07.2021
30.	Gowtham P	17ME036	TVS, UPASANA HOSUR	11.01.2021
31.	Gowtham R	17ME037	K R Fuels. Thichy	20.05.2021
32.	Gowtham S	17ME038	Lakshmi Precision Tools, Coimbatore	15.08.2021
33.	Hariprasath A V	17ME039	Precision Equipments Chennai	15.08.2021
34.	Indhira prasanth V T	17ME040	K R Fuels. Thichy	20.05.2021
35.	Jaya surya J	17ME042	Indoshell Cast, Coimbatore	09.06.2021
36.	Jelone joseph A	17ME043	Laxmi Electricals, Coimbatore	15.08.2021
37.	Jeslin raj J	17ME044	K R Fuels. Thichy	20.05.2021



38.	Kamalnath K	17ME046	K R Fuels. Thichy	20.05.2021
39.	Karnish A S	17ME048	IAMNEO.AI	09.03.2021
40.	Karthy V	17ME049	K R Fuels. Thichy	20.05.2021
41.	Karthick K	17ME050	Indoshell Cast, Coimbatore	09.06.2021
42.	Karthick V	17ME051	Precision Equipments Chennai	15.08.2021
43.	Karthickkumar E	17ME052	TVS, UPASANA HOSUR	11.01.2021
44.	Karthickraj M	17ME053	K R Fuels. Thichy	20.05.2021
45.	Karthik kumar K	17ME054	HML Tea Factory, Munnar	11.01.2021
46.	Kathir G	17ME057	Raja Lakshmi Colour Roofings	11.01.2021
47.	Kathiravan M	17ME058	FOCUS EDUMATICS	18.12.2020
48.	Kathirvel V	17ME059	Lakshmi Precision Tools, Coimbatore	15.08.2021
49.	Kaveenkumar K	17ME060	Webco India Limited, Chennai	08.07.2021
50.	Kavin E	17ME061	Webco India Limited, Chennai	08.07.2021
51.	Kavinraj A	17ME062	K R Fuels. Thichy	20.05.2021
52.	Keerthivaasan S V	17ME065	TVS, UPASANA HOSUR	11.01.2021
53.	Latheef A H	17ME066	TVS, UPASANA HOSUR	11.01.2021
54.	Manikandan M	17ME068	W.T.T Technologies	09.06.2021
55.	Manikandan P	17ME069	K R Fuels. Thichy	09.06.2021
56.	Manikandan T	17ME070	Indoshell Cast, Coimbatore	20.08.2021
57.	Mithunkumar N	17ME073	SAN Engineering Solutions	15.08.2021
58.	Mohan kumar S	17ME075	Mekala Garments	14.07.2021
59.	Mohanasundaram N	17ME076	KCR Tex	01.06.2021
60.	Murali R	17ME077	Renault Nissan, Chennai	20.05.2021
61.	Murugan V	17ME078	HCL, Chennai	09.06.2021
62.	Muthukumar S	17ME079	K R Fuels. Thichy	20.08.2021
63.	Nanthakumar P	17ME081	Indoshell Cast, Coimbatore	20.08.2021
64.	Naveenkumar G	17ME083	L G Balakrishnan & Bro, Coimbatore	15.08.2021
65.	Naveenkumar M	17ME084	L G Balakrishnan & Bro, Coimbatore	09.06.2021
66.	Nithish M S	17ME085	LGB, Coimbatore	08.07.2021
67.	Parthipan R	17ME089	Indoshell Cast, Coimbatore	14.07.2021
68.	Parwez F	17ME090	Webco India Limited, Chennai	15.08.2021
69.	Phranesh S	17ME091	Renault Nissan, Chennai	08.07.2021
70.	Piraneash V	17ME092	Air loom	20.08.2021
71.	Prabhakaran M	17ME093	Webco India Limited, Chennai	20.08.2021
72.	Pradeep P	17ME094	L G Balakrishnan & Bro, Coimbatore	03.05.2021
73.	Prasanna T R	17ME095	L G Balakrishnan & Bro, Coimbatore	14.07.2021
74.	Prasanth K	17ME096	SSS Engineers	15.08.2021
75.	Praveen T	17ME098	Renault Nissan, Chennai	05.05.2021
76.	Praveenkumar P	17ME099	Siva Sakthi Spinning mill	08.07.2021
77.	Priyanka M	17ME100	Hindustan Foods Pvt Ltd Coimbatore	03.05.2021
78.	Pugazhenthii M	17ME101	Webco India Limited, Chennai	03.05.2021
79.	Pushparaj S	17ME102	Gobi Routers, Gobi	03.05.2021
80.	Raghul A	17ME103	Indoshell Cast, Coimbatore	03.05.2021
81.	Ragul D (5.8.2000)	17ME105	Ambal Auto, Erode	20.05.2021
82.	Ragunath T	17ME107	Kumaran Oil Mill	09.06.2021
83.	Rajapandi V	17ME108	K R Fuels. Thichy	15.08.2021
84.	Rajesh K	17ME109	Indoshell Cast, Coimbatore	14.07.2021



85.	Ranjith kumar P	17ME111	Lakshmi Precision Tools, Coimbatore	15.08.2021
86.	Roshan G	17ME113	Renault Nissan, Chennai	15.08.2021
87.	Sabareesh P M	17ME114	FOCUS EDUMATICS	18.12.2020
88.	Sabarish K J	17ME115	Lakshmi Precision Tools, Coimbatore	15.08.2021
89.	Sakthikumar R	17ME116	K R Fuels. Thichy	15.08.2021
90.	Sanjith S	17ME118	Lakshmi Precision Tools, Coimbatore	15.08.2021
91.	Santhosh B	17ME119	COGNIZANT	16.02.2021
92.	Santhoshkumar S	17ME120	Lakshmi Precision Tools, Coimbatore	05.04.2021
93.	Santhoshvishnu G	17ME121	Shree Ram Finance	15.08.2021
94.	Sarath kumar V	17ME122	Ucals Fuel Systems Chennai	09.06.2021
95.	Sathish P	17ME123	Lakshmi Precision Tools, Coimbatore	15.08.2021
96.	Satyaprakash T N	17ME124	Indoshell Cast, Coimbatore	09.06.2021
97.	Senthilkumaran M	17ME125	Lakshmi Precision Tools, Coimbatore	09.06.2022
98.	Settu R	17ME126	Indoshell Cast, Coimbatore	15.08.2021
99.	Shiyam kumar T L	17ME128	HCL first Round Cleared	05.04.2021
100.	Shri venkatesh M	17ME129	Lakshmi Precision Tools, Coimbatore	10.06.2021
101.	Sibi P	17ME130	Ucals Fuel Systems Chennai	05.04.2021
102.	Sivanantham P	17ME131	Novex Industries	15.08.2021
103.	Sivaraman P	17ME132	Ucals Fuel Systems Chennai	05.04.2021
104.	Sridhar R	17ME133	Lakshmi Precision Tools, Coimbatore	10.06.2021
105.	Sriram K	17ME134	Ucals Fuel Systems Chennai	09.06.2021
106.	Sudhakar S	17ME135	Eroyce, Coimbatore	10.06.2021
107.	Sudharsan P	17ME136	Indoshell Cast, Coimbatore	15.08.2021
108.	Suhanthan S M	17ME137	Coral Manufacturing India Pvt Ltd, Erode	11.01.2021
109.	Surendar M	17ME138	COGNIZANT	11.02.2021
110.	Surenderan S	17ME139	TVS, UPASANA HOSUR	05.04.2021
111.	Tanikasalam S S	17ME142	Ucals Fuel Systems Chennai	09.06.2021
112.	Thanikachalam S	17ME143	Indoshell Cast, Coimbatore	05.04.2021
113.	Velprabakaran P	17ME144	Ucals Fuel Systems Chennai	10.06.2021
114.	Vignesh M	17ME146	Coral Manufacturing India Pvt Ltd, Erode	05.04.2021
115.	Vignesh V	17ME147	Ucals Fuel Systems Chennai	10.06.2021
116.	Vijay V	17ME148	Coral Manufacturing India Pvt Ltd, Erode	15.08.2021
117.	Vijayapandian A	17ME149	Lakshmi Precision Tools	15.08.2021
118.	Vimalkanth B	17ME150	Lakshmi Precision Tools	15.08.2021
119.	Yogananth G	17ME152	Lakshmi Precision Tools	15.08.2021
120.	Abishek raja K V	17MEL01	Precision Equipments Chennai	15.08.2021
121.	Aravind S	17MEL02	Lakshmi Precision Tools	15.08.2021
122.	Dhanabal K	17MEL05	Lakshmi Precision Tools	09.06.2021
123.	Dhanabal R	17MEL06	Indoshell Cast, Coimbatore	05.05.2021
124.	Dinesh D	17MEL07	Hindustan Foods Pvt Ltd Coimbatore	09.06.2021
125.	Gokul S	17MEL08	Indoshell Cast, Coimbatore	10.06.2021



126.	Gokul krishnan V	17MEL09	AUDI, Show room	15.08.2021
127.	Gowtham S	17MEL11	Lakshmi Precision Tools	05.05.2021
128.	Gowtham rajan N	17MEL12	Hindustan Foods Pvt Ltd Coimbatore	15.08.2021
129.	Harikrishnan D	17MEL13	Precision Equipments Chennai	05.05.2021
130.	Hari prasad S	17MEL14	Hindustan Foods Pvt Ltd Coimbatore	15.08.2021
131.	Hari prasath S	17MEL15	Precision Equipments Chennai	05.05.2021
132.	Jagadeeswaran P	17MEL16	Hindustan Foods Pvt Ltd Coimbatore	14.07.2021
133.	Jeeva r N	17MEL17	Renault Nissan, Chennai	20.08.2021
134.	Manikandan D	17MEL19	FOCUS EDUMATICS	18.12.2020
135.	Manikandan V J	17MEL20	Hindustan Foods Pvt Ltd Coimbatore	05.05.2021
136.	Mohammed fazil I	17MEL21	COGNIZANT	06.02.2021
137.	Mohanapradeep S	17MEL22	Hindustan Foods Pvt Ltd Coimbatore	05.05.2021
138.	Muhammed salim	17MEL23	Indoshell Cast, Coimbatore	09.06.2021
139.	Muruganantham S	17MEL24	Bajaj Finance	10.06.2021
140.	Paneerselvam K	17MEL26	Hindustan Foods Pvt Ltd Coimbatore	05.05.2021
141.	Raguram J	17MEL27	Avinior Hyderabad	15.06.2021
142.	Rajkumar M	17MEL28	TVS, UPASANA HOSUR	11.01.2021
143.	Ramsundar D	17MEL30	Hindustan Foods Pvt Ltd Coimbatore	14.07.2021

4.4.2.a- Mechanical Department Higher Studies details for the academic year(2017-2018)

SL.NO	STUDENT NAME	Enrollment No.	COURSE	COLLEGE NAME
1	Thanggoulenhmangte	14ME135	M.Tech-Thermal and Fluid Engineering	NIT, Manipur
2	ArunPrasath J	14ME013	M.E Engineering Design	Anna University, Chennai
3	Bharath P	14ME020	M.E Thermal Engineering	Government College of Technology, Coimbatore
4	Chokalingam N.K	14ME023	M.E Welding Engineering	Government College of Technology, Salem



4.4.2.b- Mechanical Department Higher Studies details for the academic year (2018-2019)

SL.NO	STUDENT NAME	Enrollment No.	COURSE	COLLEGE NAME
1	Ragulaadhtya A	15ME122	M.Tech in Health, Safety and Environmental Engineering	University of Petroleum and Energy Studies
2	Shanmuga Shankar M	15ME148	MBA	Karpagam Academy of Higher Education
3	Nishanthan S	15ME104	MBA	Bharathiyar university
4	Barathkumark.J	15ME018	MBA	SHREE VenkateshwaraHi- TECH Engineering College
5	Arul Krishnan S	15ME009	MBA	Nandha Engineering College
6	Manojkumar J	15ME084	M.E. Industrial Engineering	Kumaraguru College of Technology

4.4.2.c- Mechanical Department Higher Studies details for the academic year (2019-2020)

SL.NO	STUDENT NAME	Enrollment No.	COURSE	COLLEGE NAME
1	Abineshwaran S	16ME001	M.E Engineering Design	Nandha Engineering College
2	Bharaneedharan S	16ME013	M.E Engineering Design	Nandha Engineering College
3	Manikandan R	16ME063	M.E Engineering Design	Nandha Engineering College



4.4.2.d- Mechanical Department Higher Studies details for the academic year (2019-2020)

SL.NO	STUDENT NAME	Enrollment no.	COURSE	COLLEGE NAME
1	Akash Mahendran	17ME006	M.E Engineering Design	Nandha Engineering College
2	Manikandan M	17ME068	M.E Engineering Design	Nandha Engineering College
3	Manikandan T	17ME070	M.E Engineering Design	Nandha Engineering College
4	Ravishankar M	17ME112	M.E Engineering Design	Nandha Engineering College
5	Shankar M	17MEL33	M.E Engineering Design	Nandha Engineering College
6	Balachander D	17ME014	M.E Mechatronics	Kongu Engineering College
7	Gowthamrajan N	17MEL12	MBA	Nandha Engineering College
8	Jothiragavan E	17MEL18	MBA	Nandha Engineering College
9	Suthish K	17ME141	MBA	Nandha Engineering College
10	Mano Vedhakumar R	17ME071	MBA	Sri Ramakrishna Engineering College



4.5 Professional Activities (20)**Self Assessment (20)****4.5.1 Professional societies/chapters and organizing engineering events (5)**

Year	Professional Societies			Association Activity		
	IEI	ISTE	SAE	International Level	National Level	State Level
2021-22	2	1	10	1	1	7
2020-21	1	1	2	-	-	8
2019-20	4	2	3	1	1	4

Self Assessment (5)**Table 4.5.1.a - Professional Societies activities**

Professional societies					
S.No.	Year	Name of the Seminar/ Workshop/Conference	Date(s)	Source of Funding	No. of Participants
1.	2021-22	Recent Trends in Mechanical Engineering and Skill Requirements	15.09.2021	IEI	54
2.		Teachers Day	04.90.2021	IEI	101
3.		Student Convention Programme Tier-1 Events(10Nos)	20.12.2021	SAE	52
4.		Digital Product Design	31.03.22 to 03.04.2022	ISTE	80
5.	2020-21	Seminar on Advanced Product design & development of Automotive Plastic Component	01.08.2020	SAE	100
6.		Webinar on Innovate with 3D Printing	29.08.2020	ISTE	100
7.		Seminar on Future of Electric Bus and Clean Transportation	03.10.2020	SAE	100
8.		Webinar on“Virtual Power train Development for Electric Vehicles”	19.05.2021	IEI	100
9.	2019-20	Orientation program on Skill Development for Placement in Core Industries	10.07.2019	SAE	110

10.	Industrial Seminar on "Innovative Technologies for Smart, Safe, Sustainable Automotive Transport"	30.08.2019	SAE	110
11.	SAEISS Student Convention Tier- II- 2020	28.02.2020	SAE	202
12.	Workshop on TQM and Industry 4.0 by ISTE MECHANICAL	30.09.2019	ISTE	112
13.	Challenges and opportunities in Electrical Vehicle Design	11.03.2020	ISTE	124
14.	Guest Lecture on Advanced Engineering Technology	29.09.2019	IEI	162
15.	Inauguration of IEI Student Chapter	22.08.2019	IEI	210
16.	52 nd Engineers Day	14.09.2019	IEI	56
17.	FDP on Energy Auditing and Management	19.06.2019	IEI	50

STUDENTS ASSOCIATION

Students are involved in various activities by constituting department level students association. Students will organize events in consultation with the faculty in charge. A flow chart showing the constitution of Students Association is shown below.

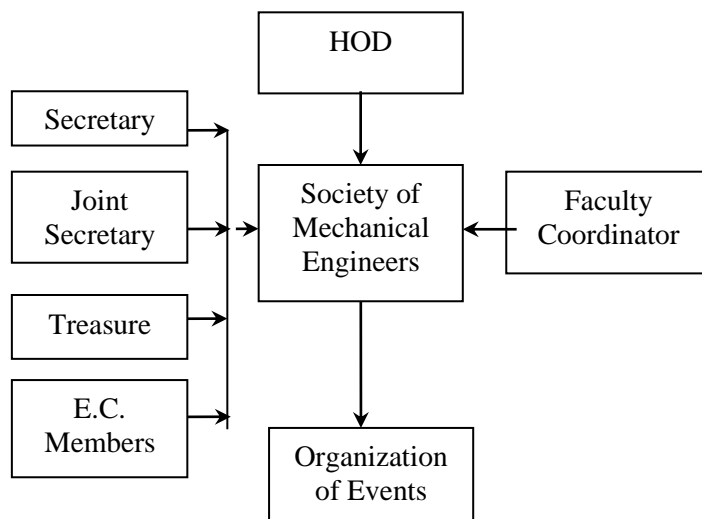


Figure 4.5.1 Organizational Structure of Association

Table 4.5.1.b - Association activities

Association Activity					
S.No.	Year	Name of the Seminar/ Workshop/Conference	Date(s)	Source of Funding	No. of Participants
1.	2021- 2022	International Seminar on Application of Artificial Intelligent in Mechanical Engineering	22.06.2021	MECH Association	98
2.		Association Inaugural	11.12.2021	MECH Association	97
3.		Opportunities in Higher studies at abroad	14.08.2021	MECH Association	100
4.		Product Development and Innovation-(Quiz)	11.12.2021	MECH Association	98
5.		Industrial Air Pollution And Control	18.12.2021	MECH Association	96
6.		3D printing applications in automobile component Manufacturing”	03.01.2022	MECH Association	87
7.		National Conference on Advances in Engineering, Technology and Management	20.05.2022	MECH Association	280
8.		Intra-Dept Event	24.06.2022	MECH Association	174
9.		Mechanism Making	18.06.2022	MECH Association	110
10.	2020- 2021	FDP on Energy Management in Thermal & Electrical System	16.09.2020- 19.09.2020	ISC&NPS	50
11.		Association Inaugural	03.02.21	MECH Association	100
12.		Intra department meet	06.03.21	MECH Association	54
13.		Academic seminar on Power Sources for Electrical Vehicle	17.05.21	MECH Association	100
14.		Industrial seminar on Industry Ready Engineers: Road Map for Skill Sets with industry perspective	29.05.21	MECH Association	67
15.		Outcome Based Curriculum Development Phase-I	17.02.2021	MECH Association	46
16.		Outcome Based Curriculum Development Phase-II	10.03.2021	MECH Association	36

17.	2019-2020	International Interaction with Students by Dr. TurnadLenggoGinta UniversitiTeknologi	30.06.2019	MECH Association	65
18.		Technical Quiz	20.09.2019	CADD center, Perundurai	56
19.		Bike and Car Engine Mantling and Dismantling	06.09.2019 to 07.09.2019	MECH Association	117
20.		Academic seminar on Product design	3.02.2020	MECH Association	97
21.		Legal Awareness Programme	22.02.2020	NCW	20
22.		National Level Technical Symposium TECH RITHAM	13.03.2020	MECH Association	250

4.5.2 Publication of technical magazines, newsletters, etc.**(5)****Self Assessment (5)**

(The Department shall list the publications mentioned earlier along with the names of the editors, publishers, etc.)

4.5.2.a - Publication of technical magazines, newsletters

Year	Volume no and month	Name of the news letter	Name of the editor	Publisher
2021-22	Volume.9 - June2022	MEDALLIONS NEWS'22	Mr. S.Muruganantham, AP/MECH	Department of MECH Association
	Volume.10	TECHNICAL MAGAZINE	Mr. S.Muruganantham, AP/MECH	Department of MECH Association
	Volume.9	TECHNICAL MAGAZINE	Mr. S.Muruganantham, AP/MECH	Department of MECH Association

2020-2021	Volume.8 - April 2021	MEDALLIONS NEWS'21	Mr.S.Muruganantham, AP/MECH	Department of MECH Association
	Volume.8	TECHNICAL MAGAZINE	Mr. S.Muruganantham, AP/MECH	Department of MECH Association
	Volume.7	TECHNICAL MAGAZINE	Mr. S.Muruganantham, AP/MECH	Department of MECH Association
2019-2020	Volume.7 - April 2020	MEDALLIONS NEWS'20	Mr.S.Muruganantham, AP/MECH	Department of MECH Association

4.5.3 Participation in inter-institute events by students of the program of study (10)

Self Assessment (10)

Table 4.5.3.a Inter-institute events by students of the program of study

Academic year	No. of students participated in Paper & Project presentation		No. of students participated in Conference & Workshops		No. of students participated in Other Events (Technical Quiz, CAD Modling, Seminar & etc)		Total No. of students Participated	
	Inside Tamil Nadu	Outside Tamil Nadu	Inside Tamil Nadu	Outside Tamil Nadu	Inside Tamil Nadu	Outside Tamil Nadu	Inside Tamil Nadu	Outside Tamil Nadu
2021-22	11	10	139	11	160	15	310	36
2020-21	58	35	202	7	191	43	451	85
2019-20	57	30	219	4	293	19	569	53

Table 4.5.3.b – Student Activities for the academic Year 2021-2022

S. No	Date	Name of the Students	Title	Institution	Achievements
1.	06-05-2022	Mukesh Kumar G	CAD Modeling	Kongu Engineering College	Second Prize
2.	05-06-2021	Ashok Sri S	International Webinar	P S G Institute of Technology and Applied Research	Participation
3.	23-06-2021	Boopathy S	National Level Boot	Vidyavardhaka College of Engineering, Mysure	Participation
4.	24-06-2021	Arun Prasanth K	Webinar	Pondicherry Engineering College	Participation
5.	28-10-2021	Prathish A R	Quiz	Bharat Institute of Engineering and Technology	Participation
6.	12-01-2022	Sundhareshan E	Online Webinar	Dr. NGP Institute of Technology	Participation
7.	24-01-2022	Sundhareshan E	National Level Webinar	Hansraj Jivandas College of Education	Participation
8.	26-02-2022	Mohanraj K	Workshop	Coimbatore Institute of Technology	Participation
9.	04-03-2022	Sasi Kumar S	Workshop	Sathyabama Institute of Science and Technology	Participation
10.	28-04-2022	Elango M	Workshop	K S R Institute for Engineering and Technology	Participation

Table 4.5.3.c – Student Activities for the academic Year 2020-2021

S.No.	Date	Name of the Students	Title	Institution	Achievements
1.	20-05-2021	Kamalnath K	Paper Presentation	Sengunthar Engineering College	Second Prize
2.	09-05-2020	Manikandan M	Paper Presentation	K.S.R COLLEGE OF TECHNOLOGY	Participation
3.	18-07-2020	Sarath Kumar V	International Conference	Francis Xavier Engineering College	Participation
4.	01-09-2020	Sibi P	International Conference	Joginpally BR Engineering college	Participation
5.	15-03-2019	Tanikasalam S S	Workshop	Bannari Amman Institute of Technology	Participation
6.	04-07-2020	Jaisin Raj.j	Webinar	Bannari Amman Institute of Technology	Participation

7.	24-06-2021	Raghul A	Workshop	Atal Incubation Center - Pondicherry Engineering college Foundation	Participation
8.	03-06-2020	Sanjaykumar. R	Quiz	Mohamed Sathak Engineering College	Participation
9.	26-06-2020	Boopathy S	Workshop	MLR Institute of Technology	Participation
10.	27-01-2021	Merlin Abinaya D V	Basic Programming using python	IIT BOMBAY IN VIRTUAL MODE	Participation

Table 4.5.3.d – Student Activities for the academic Year 2019-2020

S.No.	Date	Name of the Students	Title	Institution	Achievements
1.	13-09-2019	Dharun shankar.M	Go Kart Event	Bharat Formula Karting Cadd Technologies	Participation
2.	27-09-2019	Manikandan R	Poster Presentation	Excel Engineering College	First Prize
3.	19-08-2019	Manikandan M	Cad Modeling	Jansons Institute Of Technology	Second Prize
4.	19-08-2019	Manikandan M	Project Presentation	Jansons Institute Of Technology	First Prize
5.	15-11-2019	Manikandan M	Paper Presentation	Robotics Training Institute	Participation
6.	22-02-2020	Nanthakumar P	Mr. Mechanic	Dr. N G P Institute Of Technology	Participation
7.	23-05-2020	Priyanka.M	Quiz	CITC	Participation
8.	9-08-2019	Dhanabal K	Quiz	K.S.R College Of Engineering	Participation
9.	14-02 -2020	Kishore S	International Conference	Ceo Mahindra Electric Mobility	Participation
10.	30-05-2020	Janaga nandhini M P	Quiz	Ch.Devi College Of Pharmacy	Participation



FigureB.4.5.3.e – Won II Prize in CAD MODELING Event at Kongu Engineering College, Perundurai.



FigureB.4.5.3.f – Participated in Design Thinking & Product Development at Vidyavardhaka College of Engineering, Mysore



FigureB.4.5.3.g – Go Kart Event at Kari Motors, Coimbatore



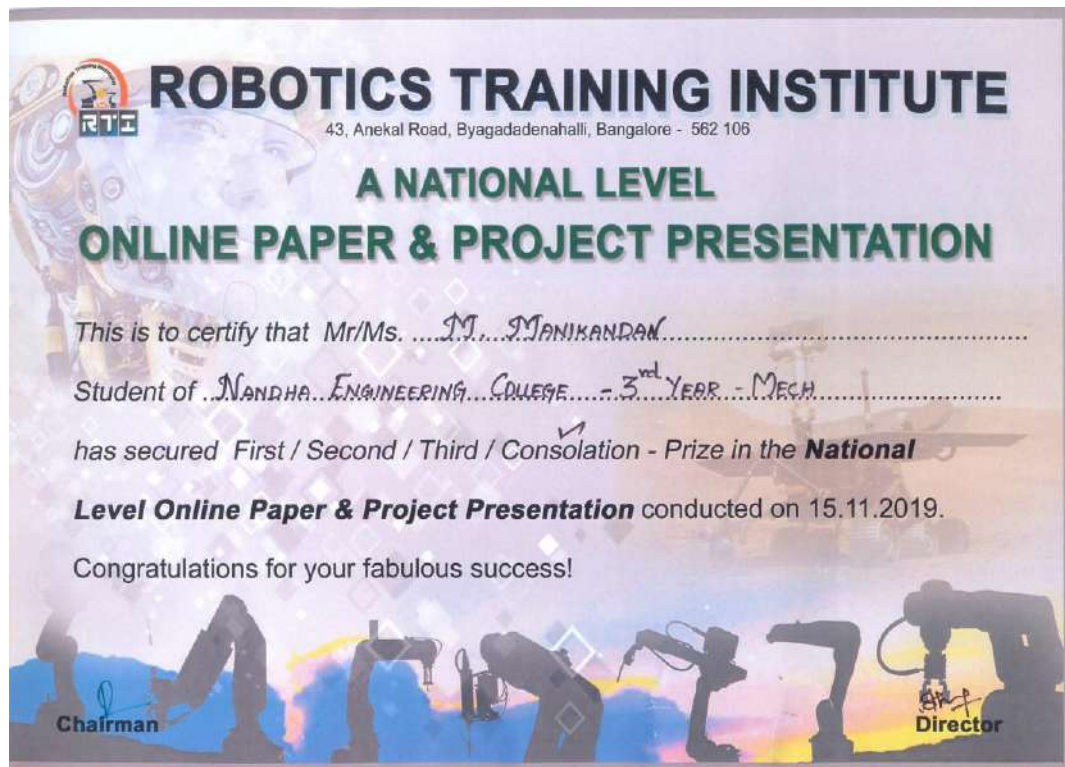
FigureB.4.5.3.h – Won I Prize Poster Presentation at Excel Engineering College, Erode.



FigureB.4.5.3.i – Won II Prize in CADD Modeling event at JIT, Coimbatore.



FigureB.4.5.3.j – Won I Prize in Project Presentation event at JIT, Coimbatore.



FigureB.4.5.3.k– Participated Paper & Project Presentation at Robotics Training Institute, Bangalore.



FigureB.4.5.3.1 – Participated in Quiz Event at KSRCE, Tiruchengode.



FigureB.4.5.3.m – Participated in Leadership Talk by MHRD & IIC.



FigureB.4.5.3.n – Participated in Quiz Program at CH. Devi Lal College of Pharmacy, Haryana.

CRITERION 5

FACULTY INFORMATION AND CONTRIBUTIONS



CRITERION 5	Faculty Information and Contributions	200
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Self Assessment (153)

Table B.5a Faculty Details - 2022- 2023

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is (“ No”)	Nature of Association (Regular/Contract)
	Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
Dr.Easwaramoorthi M	M.E., Ph.D.	Anna University	2013	YES	Prof.	01.05.2013	01.05.2013	MECH	MECH	-	3	-	Y	REGULAR
Dr Ashokkumar B	M.E., Ph.D.	Anna University	2014	YES	Prof.	15.04.2021	15.04.2021	MECH	MECH	4	4	-	Y	REGULAR
Dr.Muthukumar M	M.E., Ph.D.	Anna University	2016	YES	Prof.	31.10.2016	14.06.2006	MECH	MECH	-	-	-	Y	REGULAR
Dr.Murthi M.K	M.E., Ph.D.	Anna University	2019	YES	ASP	06.06.2019	14.08.2001	MECH	MECH	1	-	-	Y	REGULAR



Dr.Peramanan A	M.E., Ph.D.	Anna University	2019	YES	ASP	21.12.2020	21.12.2020	MECH	MECH	-	-	-	Y	REGULAR
Dr Magibalan S	M.E., Ph.D.	Anna University	2020	YES	ASP	-	02.08.2021	MECH	MECH	1	1	-	Y	REGULAR
Dr Senniangiri N	M.E., Ph.D.	Anna University	2020	YES	AP	-	02.06.2021	MECH	MECH	1	-	-	Y	REGULAR
Mr.Sampathkumar M	M.E.	Anna University	2008	YES	AP	-	25.08.2008	MECH	ME	-	-	-	Y	REGULAR
Ms.Latha A.D	M.E.	Periyar University	2001	YES	AP	-	01.09.2008	MECH	CAD	-	-	-	Y	REGULAR
Mr.Shanmugam M	M.E.	Anna University	2009	YES	AP	-	03.06.2011	MECH	ED	-	-	-	Y	REGULAR
Mr.Jeyakumar R	M.E.	Karpagam University	2011	YES	AP	-	16.08.2011	MECH	ME	-	-	-	Y	REGULAR
Mr.Sengottaiyan M	M.E.	Anna University	2010	YES	AP	-	02.09.2009	MECH	CAD	1	-	-	Y	REGULAR
Mr.Eswaran S	M.E.	Anna University	2012	YES	AP	-	10.07.2012	MECH	CAD	-	-	-	Y	REGULAR
Mr.Muruganantham S	M.E.	Anna University	2012	YES	AP	-	12.07.2012	MECH	ED	1	-	-	Y	REGULAR
Mr.Mohamed Ajmal Mahasin M	M.E.	Anna University	2013	YES	AP	-	24.06.2013	MECH	ED	-	-	-	Y	REGULAR
Mr.Ravichandran D	M.E.	Anna University	2013	YES	AP	-	27.06.2013	MECH	CAD	1	-	-	Y	REGULAR
Mr.Velliyangiri B	M.E.	Anna University	2013	YES	AP	-	15.07.2013	MECH	ED	-	-	-	Y	REGULAR
Mr.Sakthivel B	M.E.	Anna University	2014	YES	AP	-	30.04.2014	MECH	CAD/ CAM	-	-	-	Y	REGULAR



Mr.Arjun Raj R	M.E.	Anna University	2014	YES	AP	-	14.07.2014	MECH	ED	-	-	-	Y	REGULAR
Mr.Kannan G	M.E.	Anna University	2015	YES	AP	-	22.06.2015	MECH	ED	-	-	-	Y	REGULAR
Mr.Balakrishnan S	M.E.	Anna University	2015	YES	AP	-	29.06.2015	MECH	TE	-	-	-	Y	REGULAR
Mr.Omprakas M.A	M.E.	Anna University	2014	YES	AP	-	14.06.2016	MECH	CAD/ CAM	-	-	-	Y	REGULAR
Mr.Venkateshan T	M.E.	Anna University	2016	YES	AP	-	14.06.2016	MECH	ED	-	-	-	Y	REGULAR
Mr.Rajkumar R	M.E.	Anna University	2016	YES	AP	-	25.06.2018	MECH	TE	-	-	-	Y	REGULAR
Mr Nandhakumar M	M.E.	Anna University	2019	YES	AP	-	07.08.2019	MECH	ED	-	-	-	Y	REGULAR
Mr Gowrisankar G	M.E.	Anna University	2019	YES	AP	-	27.08.2019	MECH	ED	-	-	-	Y	REGULAR

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Table B.5b Faculty Details CAY(2021- 2022)

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving Currently Associated is (“ No”) (In case Currently Associated is (“ No”)	Nature of Association (Regular/Contract)
	Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
Dr.Easwaramoorthi M	M.E., Ph.D.	Anna University	2013	YES	Prof.	01.05.2013	01.05.2013	MECH	MECH	1	3	-	Y	REGULAR
Dr.Kanagasabapathi N	M.E., Ph.D.	Anna University	2015	YES	Prof.	18.12.2020	18.12.2020	MECH	MECH	-	-	-	Y	REGULAR
Dr Ashok Kumar B	M.E., Ph.D.	Anna University	2014	YES	Prof.	15.04.2021	15.04.2021	MECH	MECH	3	4	-	Y	REGULAR
Dr.Murthi M.K	M.E., Ph.D.	Anna University	2019	YES	Prof.	06.06.2019	14.08.2001	MECH	MECH	1	-	-	Y	REGULAR
Dr.Muthukumar M	M.E., Ph.D.	Anna University	2016	YES	Prof.	31.10.2016	14.06.2006	MECH	MECH	5	-	-	Y	REGULAR
Dr.Kathiresan G.R	M.E., Ph.D.	Anna University	2017	YES	Prof.	03.06.2019	03.06.2019	MECH	MECH	-	-	-	Y	REGULAR



Dr.Peramanan A	M.E., Ph.D.	Anna University	2019	YES	Prof.	21.12.2020	21.12.2020	MECH	MECH	-	-	-	Y	REGULAR
Dr Magibalan S	M.E., Ph.D.	Anna University	2020	YES	AP	-	02.08.2021	MECH	MECH	6	1	-	Y	REGULAR
Dr Senniangiri N	M.E., Ph.D.	Anna University	2020	YES	AP	-	02.06.2021	MECH	MECH	1	-	-	Y	REGULAR
Dr Senthil Prabhu N	M.E., Ph.D.	Anna University	2021	YES	AP	-	02.06.2021	MECH	MECH	-	-	-	Y	REGULAR
Mr.Chandramohan V	M.E.	Anna University	2007	YES	AP	-	11.09.2007	MECH	ME	3	-	-	Y	REGULAR
Mr.Sampathkumar M	M.E.	Anna University	2008	YES	AP	-	25.08.2008	MECH	ME	-	-	-	Y	REGULAR
Ms.Latha A.D	M.E.	Periyar University	2001	YES	AP	-	01.09.2008	MECH	CAD	-	-	-	Y	REGULAR
Mr.Shanmugam M	M.E.	Anna University	2009	YES	AP	-	03.06.2011	MECH	ED	-	-	-	Y	REGULAR
Mr.Jeyakumar R	M.E.	Karpagam University	2011	YES	AP	-	16.08.2011	MECH	ME	-	-	-	Y	REGULAR
Mr.Sengottaiyan M	M.E.	Anna University	2010	YES	AP	-	02.09.2009	MECH	CAD	-	-	-	Y	REGULAR
Mr.Sugumar M	M.E.	Anna University	2012	YES	AP	-	06.06.2012	MECH	ME	1	-	-	Y	REGULAR
Mr.Eswaran S	M.E.	Anna University	2012	YES	AP	-	10.07.2012	MECH	CAD	1	-	-	Y	REGULAR
Ms.Umadevi G.A	M.E.	Anna University	2012	YES	AP	-	15.07.2019	MECH	CAD	-	-	-	Y	REGULAR
Mr.Muruganantham S	M.E.	Anna	2012	YES	AP	-	12.07.2012	MECH	ED	2	-	-	Y	REGULAR

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		University												
Mr.Mohamed Ajmal Mahasin M	M.E.	Anna University	2013	YES	AP	-	24.06.2013	MECH	ED	-	-	-	Y	REGULAR
Mr.Ravichandran D	M.E.	Anna University	2013	YES	AP	-	27.06.2013	MECH	CAD	1	-	-	Y	REGULAR
Mr.Velliyangiri B	M.E.	Anna University	2013	YES	AP	-	15.07.2013	MECH	ED	1	-	-	Y	REGULAR
Mr.Sakthivel B	M.E.	Anna University	2014	YES	AP	-	30.04.2014	MECH	CAD/ CAM	-	-	-	Y	REGULAR
Mr.Arjun Raj R	M.E.	Anna University	2014	YES	AP	-	14.07.2014	MECH	ED	-	-	-	Y	REGULAR
Mr.Kannan G	M.E.	Anna University	2015	YES	AP	-	22.06.2015	MECH	ED	-	-	-	Y	REGULAR
Mr.Balakrishnan S	M.E.	Anna University	2015	YES	AP	-	29.06.2015	MECH	TE	1	-	-	Y	REGULAR
Mr.Omprakas M.A	M.E.	Anna University	2014	YES	AP	-	14.06.2016	MECH	CAD/ CAM	-	-	-	Y	REGULAR
Mr.Venkateshan T	M.E.	Anna University	2016	YES	AP	-	14.06.2016	MECH	ED	1	-	-	Y	REGULAR
Mr.Rajkumar R	M.E.	Anna University	2016	YES	AP	-	25.06.2018	MECH	TE	-	-	-	Y	REGULAR
Mr Nandhakumar M	M.E.	Anna University	2019	YES	AP	-	07.08.2019	MECH	ED	-	-	-	Y	REGULAR
Mr Gowrisankar G	M.E.	Anna University	2019	YES	AP	-	27.08.2019	MECH	ED	-	-	-	Y	REGULAR

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Table B.5c Faculty Details CAYm1(2020- 2021)

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving Currently Associated is (“ No”)	Nature of Association (Regular/Contract)
	Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
Dr.Easwaramoorthi M	M.E., Ph.D.	Anna University	2013	YES	Prof.	01.05.2013	01.05.2013	MECH	MECH	1	-	-	Y	REGULAR
Dr.Muthukumar M	M.E., Ph.D.	Anna University	2016	YES	Prof.	31.10.2016	14.06.2006	MECH	MECH	2	-	-	Y	REGULAR
Dr.Murthi M.K	M.E., Ph.D.	Anna University	2019	YES	Prof.	06.06.2019	14.08.2001	MECH	MECH	-	-	-	Y	REGULAR
Dr.Kathiresan G.R	M.E., Ph.D.	Anna University	2017	YES	Prof.	03.06.2019	03.06.2019	MECH	MECH	-	-	-	Y	REGULAR
Dr.Kanagasabapathi N	M.E., Ph.D.	Anna University	2015	YES	Prof.	18.12.2020	18.12.2020	MECH	MECH	-	-	-	Y	REGULAR
Dr.Peramanan A	M.E., Ph.D.	Anna University	2019	YES	Prof.	21.12.2020	21.12.2020	MECH	MECH	-	-	-	Y	REGULAR



Mr.Chandramohan V	M.E.	Anna University	2007	YES	AP	-	11.09.2007	MECH	ME	1	-	-	Y	REGULAR
Mr.Ganesan K	M.E.	Anna University	2009	YES	AP	-	03.06.2011	MECH	IE	-	-	-	Y	REGULAR
Mr.Loganathan V.N	M.E.	Anna University	2007	YES	AP	-	10.06.2008	MECH	CAD	-	-	-	Y	REGULAR
Mr.Sampathkumar M	M.E.	Anna University	2008	YES	AP	-	25.08.2008	MECH	ME	1	-	-	Y	REGULAR
Ms.Latha A.D	M.E.	Periyar University	2001	YES	AP	-	01.09.2008	MECH	CAD	-	-	-	Y	REGULAR
Mr.Shanmugam M	M.E.	Anna University	2009	YES	AP	-	03.06.2011	MECH	ED	1	-	-	Y	REGULAR
Mr.Jeyakumar R	M.E.	Karpagam University	2011	YES	AP	-	16.08.2011	MECH	ME	-	-	-	Y	REGULAR
Mr.Sengottaiyan M	M.E.	Anna University	2010	YES	AP	-	02.09.2009	MECH	CAD	1	-	-	Y	REGULAR
Mr.Sugumar M	M.E.	Anna University	2012	YES	AP	-	06.06.2012	MECH	ME	2	-	-	Y	REGULAR
Mr.Eswaran S	M.E.	Anna University	2012	YES	AP	-	10.07.2012	MECH	CAD	1	-	-	Y	REGULAR
Mr.Muruganantham S	M.E.	Anna University	2012	YES	AP	-	12.07.2012	MECH	ED	3	-	-	Y	REGULAR
Mr.Manikandan M	M.E.	Anna University	2013	YES	AP	-	21.06.2013	MECH	ED	3	-	-	Y	REGULAR
Mr.Mohamed Ajmal Mahasin M	M.E.	Anna University	2013	YES	AP	-	24.06.2013	MECH	ED	3	-	-	Y	REGULAR
Mr.Ravichandran D	M.E.	Anna University	2013	YES	AP	-	27.06.2013	MECH	CAD	1	-	-	Y	REGULAR



Mr.Velliyangiri B	M.E.	Anna University	2013	YES	AP	-	15.07.2013	MECH	ED	1	-	-	Y	REGULAR
Mr.Sakthivel B	M.E.	Anna University	2014	YES	AP	-	30.04.2014	MECH	CAD/ CAM	-	-	-	Y	REGULAR
Mr.Arjun Raj R	M.E.	Anna University	2014	YES	AP	-	14.07.2014	MECH	ED	-	-	-	Y	REGULAR
Mr.Kannan G	M.E.	Anna University	2015	YES	AP	-	22.06.2015	MECH	ED	1	-	-	Y	REGULAR
Mr.Balakrishnan S	M.E.	Anna University	2015	YES	AP	-	29.06.2015	MECH	TE	2	-	-	Y	REGULAR
Mr.Sivakumar E	M.E.	Anna University	2015	YES	AP	-	11.12.2015	MECH	TE	-	-	-	Y	REGULAR
Mr.Omprakas M.A	M.E.	Anna University	2014	YES	AP	-	14.06.2016	MECH	CAD/ CAM	1	-	-	Y	REGULAR
Mr.Venkateshan T	M.E.	Anna University	2016	YES	AP	-	14.06.2016	MECH	ED	2	-	-	Y	REGULAR
Mr.Navin M.P	M.E.	Anna University	2015	YES	AP	-	23.01.2017	MECH	CAD/ CAM	-	-	-	Y	REGULAR
Mr.Rajkumar R	M.E.	Anna University	2016	YES	AP	-	25.06.2018	MECH	TE	1	-	-	Y	REGULAR
Ms.Umadevi G.A	M.E.	Anna University	2012	YES	AP	-	15.07.2019	MECH	CAD	-	-	-	Y	REGULAR

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Table B.5d Faculty Details CA Ym2(2019- 2020)

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving (In case Currently Associated is (“ No”)	Nature of Association (Regular/Contract)
	Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
Dr.Easwaramoorthi M	M.E., Ph.D.	Anna University	2013	YES	Prof.	01.05.2013	01.05.2013	MECH	MECH	1	-	-	Y	REGULAR
Dr.Muthukumar M	M.E., Ph.D.	Anna University	2016	YES	Prof.	31.10.2016	14.06.2006	MECH	MECH	3	-	-	Y	REGULAR
Dr.Murthi M.K	M.E., Ph.D.	Anna University	2019	YES	Prof.	06.06.2019	14.08.2001	MECH	MECH	1	-	-	Y	REGULAR
Dr.Kathiresan G.R	M.E., Ph.D.	Anna University	2017	YES	Prof.	03.06.2019	03.06.2019	MECH	MECH	-	-	-	Y	REGULAR
Dr.Kumaravel P	M.E., Ph.D.	Bharathiar University	2008	YES	Prof.	03.06.2019	03.06.2019	MECH	MECH	-	2	-	Y	REGULAR
Dr.Pitchandi P	M.E., Ph.D.	Anna University	2017	YES	Prof.	03.06.2019	03.06.2019	MECH	MECH	-	-	-	Y	REGULAR



Dr.Vimal Kumar E	MSC., Ph.D.	Anna University	2014	YES	Prof.	20.02.2019	25.06.2018	MECH	MECH	-	-	-	Y	REGULAR
Mr.Chandramohan.V	M.E.	Anna University	2007	YES	AP	-	11.09.2007	MECH	ME	1	-	-	Y	REGULAR
Mr.Ganesan K	M.E.	Anna University	2009	YES	AP	-	03.06.2011	MECH	IE	-	-	-	Y	REGULAR
Mr.Sampathkumar M	M.E.	Anna University	2007	YES	AP	-	25.08.2008	MECH	ME	1	-	-	Y	REGULAR
Mr.Loganathan V.N	M.E.	Anna University	2008	YES	AP	-	10.06.2008	MECH	CAD	-	-	-	Y	REGULAR
Ms.Latha A.D	M.E.	Periyar University	2001	YES	AP	-	01.09.2008	MECH	CAD	-	-	-	Y	REGULAR
Mr.Shanmugam M	M.E.	Anna University	2009	YES	AP	-	03.06.2011	MECH	ED	3	-	-	Y	REGULAR
Mr.Jeyakumar R	M.E.	Karpagam University	2011	YES	AP	-	16.08.2011	MECH	ME	-	-	-	Y	REGULAR
Mr.Sengottaiyan M	M.E.	Anna University	2010	YES	AP	-	02.09.2009	MECH	CAD	2	-	-	Y	REGULAR
Mr.Sugumar M	M.E.	Anna University	2012	YES	AP	-	06.06.2012	MECH	ME	1	-	-	Y	REGULAR
Mr.Eswaran S	M.E.	Anna University	2012	YES	AP	-	10.07.2012	MECH	CAD	4	-	-	Y	REGULAR
Ms.Umadevi G.A	M.E.	Anna University	2012	YES	AP	-	15.07.2019	MECH	CAD	-	-	-	Y	REGULAR
Mr.Muruganantham S	M.E.	Anna University	2012	YES	AP	-	12.07.2012	MECH	ED	-	-	-	Y	REGULAR
Mr.Manikandan M	M.E.	Anna University	2013	YES	AP	-	21.06.2013	MECH	ED	-	-	-	Y	REGULAR

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Mr.Mohamed Ajmal Mahasin M	M.E.	Anna University	2013	YES	AP	-	24.06.2013	MECH	ED	1	-	-	Y	REGULAR
Mr.Ravichandran D	M.E.	Anna University	2013	YES	AP	-	27.06.2013	MECH	CAD	2	-	-	Y	REGULAR
Mr.Velliyangiri B	M.E.	Anna University	2013	YES	AP	-	15.07.2013	MECH	ED	5	-	-	Y	REGULAR
Mr.Sakthivel B	M.E.	Anna University	2014	YES	AP	-	30.04.2014	MECH	CAD/ CAM	-	-	-	Y	REGULAR
Mr.Arjun Raj R	M.E.	Anna University	2014	YES	AP	-	14.07.2014	MECH	ED	-	-	-	Y	REGULAR
Mr.Kannan G	M.E.	Anna University	2015	YES	AP	-	22.06.2015	MECH	ED	1	-	-	Y	REGULAR
Mr.Karthy A	M.E.	Anna University	2015	YES	AP	-	22.06.2015	MECH	CAD/ CAM	-	-	-	Y	REGULAR
Mr.Balakrishnan S	M.E.	Anna University	2015	YES	AP	-	29.06.2015	MECH	TE	-	-	-	Y	REGULAR
Mr.Sivakumar E	M.E.	Anna University	2015	YES	AP	-	11.12.2015	MECH	TE	-	-	-	Y	REGULAR
Mr.Omprakas M.A	M.E.	Anna University	2014	YES	AP	-	14.06.2016	MECH	CAD/ CAM	1	-	-	Y	REGULAR
Mr.Venkateshan T	M.E.	Anna University	2016	YES	AP	-	14.06.2016	MECH	ED	1	-	-	Y	REGULAR
Mr.Navin M.P	M.E.	Anna University	2015	YES	AP	-	23.01.2017	MECH	CAD/ CAM	-	-	-	Y	REGULAR
Mr.Rajkumar R	M.E.	Anna University	2016	YES	AP	-	25.06.2018	MECH	TE	1	-	-	Y	REGULAR
Mr.Gowrisankar G	M.E.	Anna University	2019	YES	AP	-	27.08.2019	MECH	ED	-	-	-	Y	REGULAR
Mr.Nandhakumar M	M.E.	Anna University	2019	YES	AP	-	07.08.2019	MECH	ED	-	-	-	Y	REGULAR

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Table B.5e Faculty Details CAYm3 (2018- 2019)

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving Currently Associated is (“ No”) (In case Currently Associated is (“ No”)	Nature of Association (Regular/Contract)
	Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
Dr.Easwaramoorthi M	M.E., Ph.D.	Anna University	2013	YES	Prof.	01.05.2013	01.05.2013	MECH	MECH	2	-	-	Y	REGULAR
Dr.Muthukumar M	M.E., Ph.D.	Anna University	2016	YES	AsP	04.01.2012	14.06.2006	MECH	MECH	1	-	-	Y	REGULAR
Dr.Vimal Kumar E	MSC., Ph.D.	Anna University	2014	YES	Prof.	20.02.2019	25.06.2018	MECH	MECH	-	-	-	Y	REGULAR
Dr.Marappan R	M.E., Ph.D.	Anna University	1988	YES	Prof.	22.06.2017	22.06.2017	MECH	MECH	-	9	-	Y	REGULAR
Dr.Murthi M.K	M.E., Ph.D.	Anna University	2019	YES	AP	-	14.08.2001	MECH	MECH	2	-	Y	Y	REGULAR
Mr.Chandramohan V	M.E.	Anna University	2007	YES	AP	-	11.09.2007	MECH	ME	1	-	-	Y	REGULAR



Mr.Ganesan K	M.E.	Anna University	2009	YES	AP	-	03.06.2011	MECH	IE	2	-	-	Y	REGULAR
Mr.Loganathan V.N	M.E.	Anna University	2007	YES	AP	-	10.06.2008	MECH	CAD	2	-	-	Y	REGULAR
Mr.Sampathkumar M	M.E.	Anna University	2008	YES	AP	-	25.08.2008	MECH	ME	2	-	-	Y	REGULAR
Ms.Latha A.D	M.E.	Periyar University	2001	YES	AP	-	01.09.2008	MECH	CAD	2	-	-	Y	REGULAR
Mr.Shanmugam M	M.E.	Anna University	2009	YES	AP	-	03.06.2011	MECH	ED	2	-	-	Y	REGULAR
Mr.Jeyakumar R	M.E.	Karpagam University	2011	YES	AP	-	16.08.2011	MECH	ME	-	-	-	Y	REGULAR
Mr.Sengottaiyan M	M.E.	Anna University	2010	YES	AP	-	02.09.2009	MECH	CAD	2	-	-	Y	REGULAR
Mr.Sugumar M	M.E.	Anna University	2012	YES	AP	-	06.06.2012	MECH	ME	2	-	-	Y	REGULAR
Mr.Eswaran S	M.E.	Anna University	2012	YES	AP	-	10.07.2012	MECH	CAD	2	-	-	Y	REGULAR
Mr.Muruganantham S	M.E.	Anna University	2012	YES	AP	-	12.07.2012	MECH	ED	3	-	-	Y	REGULAR
Mr.Pradeepkumar K	M.E.	Anna University	2012	YES	AP	-	29.07.2013	MECH	CAD	2	-	-	Y	REGULAR
Mr.Manikandan M	M.E.	Anna University	2013	YES	AP	-	21.06.2013	MECH	ED	3	-	-	Y	REGULAR
Mr.Mohamed Ajmal Mahasin M	M.E.	Anna University	2013	YES	AP	-	24.06.2013	MECH	ED	3	-	-	Y	REGULAR
Mr.Ravichandran D	M.E.	Anna University	2013	YES	AP	-	27.06.2013	MECH	CAD	2	-	-	Y	REGULAR

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Mr.Velliyangiri B	M.E.	Anna University	2013	YES	AP	-	15.07.2013	MECH	ED	1	-	-	Y	REGULAR
Mr.Sakthivel B	M.E.	Anna University	2014	YES	AP	-	30.04.2014	MECH	CAD/ CAM	1	-	-	Y	REGULAR
Mr.Arjun Raj R	M.E.	Anna University	2014	YES	AP	-	14.07.2014	MECH	ED	2	-	-	Y	REGULAR
Mr.Kannan G	M.E.	Anna University	2015	YES	AP	-	22.06.2015	MECH	ED	2	-	-	Y	REGULAR
Mr.Karthy A	M.E.	Anna University	2015	YES	AP	-	22.06.2015	MECH	CAD/ CAM	2	-	-	Y	REGULAR
Mr.Vinoth R	M.E.	Anna University	2014	YES	AP	-	22.06.2015	MECH	ED	5	-	-	Y	REGULAR
Mr.Balakrishnan S	M.E.	Anna University	2015	YES	AP	-	29.06.2015	MECH	TE	3	-	-	Y	REGULAR
Mr.Omprakas M.A	M.E.	Anna University	2014	YES	AP	-	14.06.2016	MECH	CAD/ CAM	1	-	-	Y	REGULAR
Mr.Venkateshan T	M.E.	Anna University	2016	YES	AP	-	14.06.2016	MECH	ED	2	-	-	Y	REGULAR
Mr.Rajkumar R	M.E.	Anna University	2016	YES	AP	-	25.06.2018	MECH	TE	2	-	-	Y	REGULAR
Mr.Sivakumar E	M.E.	Anna University	2015	YES	AP	-	11.12.2015	MECH	TE	-	-	-	Y	REGULAR
Mr.Elango K K	M.E.	Anna University	2015	YES	AP	-	11.12.2015	MECH	ED	-	-	-	Y	REGULAR
Mr.Navin M.P	M.E.	Anna University	2015	YES	AP	-	23.01.2017	MECH	CAD/ CAM	-	-	-	Y	REGULAR



Table B.5f Faculty Details CAYm4(2017- 2018)

Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date on which Designated as Professor/ Associate Professor	Date of Joining the Institution	Department	Specialization	Academic Research			Currently Associated (Y/N) Date of Leaving Currently Associated is (“ No”)	Nature of Association (Regular/Contract)
	Degree (highest degree)	University	Year of attaining higher qualification							Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
Dr.Easwaramoorthi M	M.E., Ph.D.	Anna University	2013	YES	Prof.	01.05.2013	01.05.2013	MECH	MECH	3	1	-	Y	REGULAR
Dr.Marappan R	M.E., Ph.D.	Anna University	1988	YES	Prof.	22.06.2017	22.06.2017	MECH	MECH	-	9	-	Y	REGULAR
Dr.Muthukumar M	M.E., Ph.D.	Anna University	2016	YES	AsP	04.01.2012	14.06.2006	MECH	MECH	4	-	-	Y	REGULAR
Mr.Murthi M.K	M.E.	Annamalai University	2000	YES	AP	-	14.08.2001	MECH	TP	4	-	-	Y	REGULAR
Mr.Chandramohan V	M.E.	Anna University	2007	YES	AP	-	11.09.2007	MECH	ME	2	-	-	Y	REGULAR
Mr.Ganesan K	M.E.	Anna University	2009	YES	AP	-	03.06.2011	MECH	IE	2	-	-	Y	REGULAR
Mr.Loganathan V.N	M.E.	Anna University	2007	YES	AP	-	10.06.2008	MECH	CAD	2	-	-	Y	REGULAR



Mr.Sampathkumar M	M.E.	Anna University	2008	YES	AP	-	25.08.2008	MECH	ME	2	-	-	Y	REGULAR
Ms.Latha A.D	M.E.	Periyar University	2001	YES	AP	-	01.09.2008	MECH	CAD	2	-	-	Y	REGULAR
Mr.Shanmugam M	M.E.	Anna University	2009	YES	AP	-	03.06.2011	MECH	ED	2	-	-	Y	REGULAR
Mr.Jeyakumar R	M.E.	Karpagam University	2011	YES	AP	-	16.08.2011	MECH	ME	-	-	-	Y	REGULAR
Mr.Sengottaiyan M	M.E.	Anna University	2010	YES	AP	-	02.09.2009	MECH	CAD	2	-	-	Y	REGULAR
Mr.Sugumar M	M.E.	Anna University	2012	YES	AP	-	06.06.2012	MECH	ME	2	-	-	Y	REGULAR
Mr.Eswaran S	M.E.	Anna University	2012	YES	AP	-	10.07.2012	MECH	CAD	2	-	-	Y	REGULAR
Mr.Muruganantham S	M.E.	Anna University	2012	YES	AP	-	12.07.2012	MECH	ED	2	-	-	Y	REGULAR
Mr.Pradeepkumar K	M.E.	Anna University	2012	YES	AP	-	29.07.2013	MECH	CAD	2	-	-	Y	REGULAR
Mr.Manikandan M	M.E.	Anna University	2013	YES	AP	-	21.06.2013	MECH	ED	1	-	-	Y	REGULAR
Mr.Mohamed Ajmal Mahasin M	M.E.	Anna University	2013	YES	AP	-	24.06.2013	MECH	ED	2	-	-	Y	REGULAR
Mr.Ravichandran D	M.E.	Anna University	2013	YES	AP	-	27.06.2013	MECH	CAD	2	-	-	Y	REGULAR
Mr.Velliyangiri B	M.E.	Anna University	2013	YES	AP	-	15.07.2013	MECH	ED	2	-	-	Y	REGULAR
Mr.Balakumaran M	M.E.	Anna University	2014	YES	AP	-	30.04.2014	MECH	ED	2	-	-	Y	REGULAR

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Mr.Gejendhiran S	M.E.	Anna University	2014	YES	AP	-	30.04.2014	MECH	ED	2	-	-	Y	REGULAR
Mr.Sakthivel B	M.E.	Anna University	2014	YES	AP	-	30.04.2014	MECH	CAD/CAM	2	-	-	Y	REGULAR
Mr.Arjun Raj R	M.E.	Anna University	2014	YES	AP	-	14.07.2014	MECH	ED	2	-	-	Y	REGULAR
Mr.Subramaniam V	M.E.	Bharathiar University	2002	YES	AP	-	22.09.2014	MECH	R&AC	-	-	-	Y	REGULAR
Mr.Kannan G	M.E.	Anna University	2015	YES	AP	-	22.06.2015	MECH	ED	5	-	-	Y	REGULAR
Mr.Karthy A	M.E.	Anna University	2015	YES	AP	-	22.06.2015	MECH	CAD/CAM	1	-	-	Y	REGULAR
Mr.Vinoth R	M.E.	Anna University	2014	YES	AP	-	22.06.2015	MECH	ED	1	-	-	Y	REGULAR
Mr.Balakrishnan S	M.E.	Anna University	2015	YES	AP	-	29.06.2015	MECH	TE	3	-	-	Y	REGULAR
Mr.Sivakumar E	M.E.	Anna University	2015	YES	AP	-	11.12.2015	MECH	TE	-	-	-	Y	REGULAR
Mr.Elango K K	M.E.	Anna University	2015	YES	AP	-	11.12.2015	MECH	ED	-	-	-	Y	REGULAR
Mr.Mohankumar M	M.E.	Anna University	2015	YES	AP	-	14.06.2016	MECH	ED	-	-	-	Y	REGULAR
Mr.Omprakas M.A	M.E.	Anna University	2014	YES	AP	-	14.06.2016	MECH	CAD/CAM	2	-	-	Y	REGULAR
Mr.Venkateshan T	M.E.	Anna University	2016	YES	AP	-	14.06.2016	MECH	ED	2	-	-	Y	REGULAR
Mr.Nivash S	M.E.	Anna University	2015	YES	AP	-	20.06.2016	MECH	HP	-	-	-	Y	REGULAR

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Mr.Sekar G	M.E.	Anna University	2014	YES	AP	-	20.06.2016	MECH	ED	-	-	-	Y	REGULAR
Mr.Ethiraj A	M.E.	Anna University	2014	YES	AP	-	23.01.2017	MECH	ED	-	-	-	Y	REGULAR
Mr.Muthukumar B	M.E.	Anna University	2015	YES	AP	-	23.01.2017	MECH	ED	-	-	-	Y	REGULAR
Mr.Navin M.P	M.E.	Anna University	2015	YES	AP	-	23.01.2017	MECH	CAD/ CAM	-	-	-	Y	REGULAR

Note: Please provide details for the faculty of the department, cumulative information for all the shifts for all academic years starting from current year in above format in Annexure



5.1 Student-Faculty Ratio (SFR)**(20)****Self Assessment (14)**C
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(To be calculated at Department Level)

No. of UG Programs in the Department (n):

No. of PG Programs in the Department (m):

No. of Students in UG 2nd Year= u1; No. of Students in UG 3rd Year= u2;

No. of Students in UG 4th Year= u3;

No. of Students in PG 1st Year= p1; No. of Students in PG 2nd Year= p2

No. of Students = Sanctioned Intake + Actual admitted lateral entry students

(The above data to be provided considering all the UG and PG programs of the department)

S=Number of Students in the Department = UG1+UG2+UG3+PG1+PG2**F** = Total Number of Faculty Members in the Department (excluding first year faculty)**Student Faculty Ratio (SFR) = S / F****CAY: 2021-22**Number of UG Programs (n) = **01**Number of PG Programs (m) = **01**Number of students in UG 2nd year (U1) = 120+76 = **196**Number of students in UG 3rd year (U2) = 120+41 = **161**Number of students in UG 4th year (U3) = 180+56 = **236**Number of students in PG 1st year (P1) = **18**Number of students in PG 2nd year (P2) = **18****S**=Number of students in the department = U1+U2+U3+P1+P2 = **629****F**=Number of Faculties in the department (excluding first year faculty) : **32**

CAYm1: 2020-21

Number of UG Programs (n) = **01**

Number of PG Programs (m) = **01**

Number of students in UG 2nd year (U1) = 120+41 = **161**

Number of students in UG 3rd year (U2) = 180+56 = **236**

Number of students in UG 4th year (U3) = 180+41 = **221**

Number of students in PG 1st year (P1) = **18**

Number of students in PG 2nd year (P2) = **18**

S=Number of students in the department = U1+U2+U3+P1+P2 = **654**

F=Number of Faculties in the department (excluding first year faculty) : **31**

CAYm2: 2019-20

Number of UG Programs (n) = **01**

Number of PG Programs (m) = **01**

Number of students in UG 2nd year (U1) = 180+56 = **236**

Number of students in UG 3rd year (U2) = 180+41 = **221**

Number of students in UG 4th year (U3) = 180+31 = **211**

Number of students in PG 1st year (P1) = **18**

Number of students in PG 2nd year (P2) = **18**

S=Number of students in the department = U1+U2+U3+P1+P2 = **704**

F=Number of Faculties in the department (excluding first year faculty) : **35**

CAYm3: 2018-19

Number of UG Programs (n) = **01**

Number of PG Programs (m) = **01**

Number of students in UG 2nd year (U1) = 180+41 = **221**



Number of students in UG 3rd year (U2) = $180+31 = 211$

Number of students in UG 4th year (U3) = $180+36 = 216$

Number of students in PG 1st year (P1) = **18**

Number of students in PG 2nd year (P2) = **18**

S=Number of students in the department = $U1+U2+U3+P1+P2 = 684$

F=Number of Faculties in the department (excluding first year faculty) : **33**

Table B.5.1a Student Faculty Ratio

YEAR		CAY (21-22)	CAYm1 (20-21)	CAYm2 (19-20)	CAYm3 (18-19)
U1		196	161	236	221
U2		161	236	221	211
U3		236	221	211	216
UG		593	618	668	648
P1		18	18	18	18
P2		18	18	18	18
PG		36	36	36	36
Total Number of students in the department(S)	S=UG+PG	629	654	704	684
Number of Faculties in the department(F)	F	32	31	35	33
Student Faculty Ratio n (SFR)	SFR=S/F	(SFR1=S1/ F1) SFR1= 19.65	(SFR2=S2/ F2) SFR2= 21.09	(SFR3=S3/ F3) SFR3= 20.11	(SFR4=S4/ F4) SFR4= 20.73
Average SFR		SFR=(SFR1+SFR2+SFR3)/3 SFR=(19.65+21.09+20.11)/3			20.28



Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1. Marks distribution is given as below:

≤ 15 - 20Marks

≤ 17 - 18Marks

≤ 19 - 16Marks

≤ 21 - 14Marks

≤ 23 - 12Marks

≤ 25 - 10Marks

> 25.0 - 0 Marks

Note: Minimum 75% should be Regular/ full time faculty and the remaining shall be Contractual Faculty as per AICTE norms and standards.

The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for 2 consecutive semesters in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Student Faculty Ratio.

5.1.1 Provide the information about the regular and contractual faculty as per the format mentioned below:

Table B 5.1.1a Regular and Contractual faculty Details

Year	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY(2021-22)	32	NIL
CAYm1(2020-21)	31	NIL
CAYm2(2019-20)	35	NIL
CAYm3(2018-19)	33	NIL



5.2 Faculty Cadre Proportion**(20)****Self Assessment (20)**

The reference Faculty cadre proportion is 1(F1):2(F2):6(F3)

F1: Number of Professors required = $1/9 \times$ Number of Faculty required to comply with 20:1 Student- Faculty ratio based on no. of students (N) as per 5.1

F2: Number of Associate Professors required = $2/9 \times$ Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F3: Number of Assistant Professors required = $6/9 \times$ Number of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (N) as per 5.1

Table B.5.2a Faculty Cadre Proportion

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
2022-23	3	3	6	3	18	22
CAY (2021-22)	3	5	7	3	20	24
CAYm1(2020-21)	3	4	7	0	21	27
CAYm2(2019-20)	4	6	7	0	22	29
Average Numbers	RF1 = 3.33	AF1 = 5.00	RF2 = 7.00	AF2 = 1.00	RF3 = 21.00	AF3 = 26.67

$$\text{CadreRatio Marks} = \left[\left[\frac{AF1}{RF1} \right] + \left[\frac{AF2 * 0.6}{RF2} \right] + \left[\frac{AF3 * 0.4}{RF3} \right] \right] * 10$$

$$\text{Cadre Ratio Marks} = ((5.00/3.33) + ((1.00*0.6/7.00)) + ((26.67*0.4/21.00))) * 10 = 20.95$$

Cadre Ratio Marks = 20

Maximum marks to be limited if it exceeds 20



5.3 Faculty Qualification**(20)****Self Assessment (10.82)**

$FQ = 2.0 \times [(10X + 4Y)/F]$ where x is no. of regular faculty with Ph.D., Y is no. of regular faculty with M. Tech., F is no. of regular faculty required to comply 20:1 Faculty Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

Table B.5.3a Faculty Qualification

Year	X	Y	F	$FQ = 2.0 \times [(10X + 4Y)/F]$
2022-23	8	20	28	11.00
CAY (2021-22)	10	22	32	11.75
CAYm1(2020-21)	6	25	31	10.32
CAYm2(2019-20)	7	28	35	10.40
Average Assessment				10.82

5.4 Faculty Retention**(10)****Self Assessment (8)**

Item	Marks
(% of faculty retained during the period of assessment keeping CAYm3 as base year)	
>= 90% of required Faculty members retained during the period of assessment keeping CAYm3 as base year	10
>=75% of required Faculty members retained during the period of assessment keeping CAYm3 as base year	08
>= 60% of required Faculty members retained during the period of assessment keeping CAYm3 as base year	06
>= 50% of required Faculty members retained during the period of assessment keeping CAYm3 as base year	04



< 50% of required Faculty members retained during the period of assessment keeping CAYm3 as base year 0	0
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No. of regular faculty members in CAYm2=35 CAYm1=31 CAY=32

Table B.5.4a Faculty Retention Details

S.No	Name of the Faculty -	Faculty Retention Details		
		19-20	20-21	21-22
1	Dr.Easwaramoorthi M	✓	✓	✓
2	Dr.Muthukumar M	✓	✓	✓
3	Dr.Vimal Kumar E	✓	-	-
4	Dr.Murthi M.K	✓	✓	✓
5	Dr.Kathiresan G.R	✓	✓	✓
6	Dr.Kumaravel P	✓	-	✓
7	Dr.Pitchandi P	✓	-	-
8	Dr.Kanagasabapathi N	-	✓	✓
9	Dr.Peramanan A	-	✓	✓
10	Dr.Ashokkumar	-	-	✓
11	Dr.Magibalan	-	-	✓
12	Dr.Senniangiri	-	-	✓
13	Dr.Senthil Prabhu N	-	-	✓
14	Mr.Chandramohan V	✓	✓	✓
15	Mr.Ganesan K	✓	✓	-
16	Mr.Loganathan V.N	✓	✓	✓
17	Mr.Sampathkumar M	✓	✓	✓
18	Ms.Latha A.D	✓	✓	✓



19	Mr.Shanmugam M	✓	✓	✓
20	Mr.Jeyakumar R	✓	✓	✓
21	Mr.Sengottaiyan M	✓	✓	✓
22	Mr.Sugumar M	✓	✓	✓
23	Mr.Eswaran S	✓	✓	✓
24	Mr.Muruganatham S	✓	✓	✓
25	Mr.Manikandan M	✓	✓	✓
26	Mr.Mohamed Ajmal Mahasin M	✓	✓	✓
27	Mr.Ravichandran D	✓	✓	✓
28	Mr.Velliyangiri B	✓	✓	✓
29	Mr.Sakthivel B	✓	✓	✓
30	Mr.Arjun Raj R	✓	✓	✓
31	Mr.Kannan G	✓	✓	✓
32	Mr.Karthy A	✓	-	-
33	Mr.Balakrishnan S	✓	✓	✓
34	Mr.Omprakas M.A	✓	✓	✓
35	Mr.Venkateshan T	✓	✓	✓
36	Mr.Rajkumar R	✓	✓	✓
37	Mr.Sivakumar E	✓	✓	-
38	Mr.Navin M.P	✓	✓	-
39	Ms.Umadevi G A	✓	✓	✓
40	Mr.Gowrisankar G	✓	-	-
41	Mr.Nandhakumar M	✓	-	-



Table B.5.4b Faculty Retention Ratio

Description	2021-22
No of Faculty Retained	26
Total No of Faculty	32
% of Faculty Retained	81.25

Faculty Retention = 81%

5.5 Faculty competencies in correlation to Program Specific Criteria

(10)

Self Assessment (10)

(List the program specific criteria and the competencies (specialization, research publications, course developments etc.,) of faculty to correlate the program specific criteria and competencies.)

As per the program criteria specified by the Lead Society: ASME, SAE, IEEE, IEI, ISTE

5.5 A, B, C Specialization, Research Publications and Course developments

Table B.5.5a Faculty competencies Details

Major domain in Mechanical Engineering	Name of the Faculty	Specialization	Book / Research Publications (RP) & Citations (CI)	Course developments	Area of Project Guided
Manufacturing	Dr.M.Easwaramoorthi	Manufacturing	Research Publications: 5 h-index: 4 No. of Citations:197 Patent published : 1 Guest lecturer: 3	Lean and agile Manufacturing	Lean Manufacturing, Manufacturing System Design



Dr. B. Ashok kumar	Welding Engineering	Research Publications: 13 h-index:5 No. of Citations: 323 Patent published : 4	Welding Engineering, Welding Metallurgy, Materials and Behaviour	Welding Engineering, Additive Manufacturing
Dr. N. Kanagasabapathi	Manufacturing Technology	Research Publications:- h-index:- No. of Citations:-	Manufacturing Technology	Manufacturing Technology
Dr.G.R.Kathiresan	Manufacturing Technology	Research Publications: - h-index: - No. of Citations: -	Manufacturing Process	Manufacturing Technology
Dr.P.Kumaravel	Manufacturing Technology	Research Publications:- h-index:- No. of Citations:-	Subtractive Manufacturing Process	Manufacturing Technology
Dr. A. Peramanan	Manufacturing Technology	Research Publications:- h-index:- No. of Citations:-	Metal Removing Process	Manufacturing Technology
Dr. N. Senniangiri	Manufacturing Engineering	Research Publications: 5 h-index: 3 No. of Citations: 28	Composite Materials	Manufacturing Engineering
Dr.P.Pitchandi	Manufacturing Technology	Research Publications: 2 h-index: - No. of Citations: -	Manufacturing Technology	Manufacturing Technology
Mr. V. Chandramohan	Manufacturing Technology	Research Publications: 5 h-index: 2 No. of Citations: 23	Metal Removing Process	Manufacturing Technology



	Mr. M. Sampathkumar	Manufacturing Technology	Research Publications:- h-index:- No. of Citations:-	Manufacturing Process	Manufacturing Technology
	Mr.R.Jeyakumar	Manufacturing Technology	Research Publications: - h-index: - No. of Citations: -	Manufacturing Process	Manufacturing Technology
	Mr. M. Sugumar	Manufacturing Technology	Research Publications: - h-index: - No. of Citations: -	Subtractive Manufacturing Process	Manufacturing Technology
Thermal Engineering	Dr. M. K. Murthi	Thermal Engineering	Research Publications: 3 h-index: 2 No. of Citations:13 Copy rights : 1	Thermal Engineering	Thermal, Alternate fuels
	Dr. M. Muthukumar	Fuel cells	Research Publications: 17 h-index: 8 No. of Citations: 375 Patents Granted:2 Copy rights:1 Guest lecturer:3	Fuel cells	Fuel cells, Electric Vehicles, Alternate Fuels
	Dr. E. Vimal Kumar	Mechanical Engineering	Research Publications: - h-index: - No. of Citations: -	Solar Energy conversion	Solar Energy conversion
	Mr. S. Balakrishnan	Thermal Engineering	Research Publications: 11 h-index: - No. of Citations: -	Thermal Engineering, Solar Energy	Thermal, Solar
	Mr. E. Sivakumar	Thermal Engineering	Research Publications: - h-index: - No. of Citations: -	Thermal Engineering	Solar Energy
	Mr. R. Raj kumar	Thermal Engineering	Research Publications: 3 h-index: 1 No. of Citations: 1	Thermal Engineering, Refrigeration and Air Conditioning	Thermal, Solar



Industrial Engineering	Mr. K. Ganesan	Industrial Engineering	Research Publications: 4 h-index: - No. of Citations: -	Total Quality Management, Industrial Engineering and Management	Reliability Engineering, Facility Layouts, Microbial Fuel cells
CAD	Dr. S. Magibalan	CAD	Research Publications: 22 h-index: 6 No. of Citations: 94 Patents Granted:1	Sensitivity Analysis, Metal Matrix Composite, Wear rate	Design
	Mr. V. N. Loganathan	CAD	Research Publications: - h-index: - No. of Citations: -	Components Design	Design
	Ms.A.D.Latha	CAD	Research Publications: 2 h-index: 1 No. of Citations: 13	Design for fluid systems	Design, Fluid Mechanics
	Mr. M. Sengottaiyan	CAD	Research Publications: 4 h-index: 1 No. of Citations: 3 Patents published:1	Design of fluid systems	Design Engineering
	Mr. S. Eswaran	CAD	Research Publications: 2 h-index: 1 No. of Citations: 3	Design of Machine Elements	Engineering Design
	Mr.Pradeepkumar K	CAD	Research Publications: - h-index: - No. of Citations: -	Design of fluid systems	CAD, Non conventional machining
	Ms. G.A.Umadevi	CAD	Research Publications: - h-index: - No. of Citations: -	Design of Machine Elements	CAD
	Mr. D. Ravichandran	CAD	Research Publications: 2 h-index: 1 No. of Citations: 1 Copy rights:1	Theory of machines	Machine Design



	Mr. B. Sakthivel	CAD/CAM	Research Publications: - h-index: - No. of Citations: -	CAD/CAM	CAD/CAM
	Mr. A. Karthy	CAD/CAM	Research Publications: - h-index: - No. of Citations: -	Design of Mechanical Components	Optimization of fixture Design
	Mr. M. A. Omprakas	Engineering Design	Research Publications: 2 h-index: 1 No. of Citations: 38 Patent Granted: 1	Metal Casting Technology	Metal Casting, Fuel cell
	Mr.M.P.Navin	CAD/CAM	Research Publications: - h-index: - No. of Citations: -	CAD Design	Optimization technique
Engineering Design	Mr. M. Shanmugam	Engineering Design	Research Publications: 9 h-index: - No. of Citations: - Patents published:1	Design of Heat pipe	3D Printing, Design of Heat pipe
	Mr.S. Muruganantham	Engineering Design	Research Publications: 11 h-index: 1 No. of Citations: 6 Copy rights:1	Theory of Machines	Design
	Dr. M. Manikandan	Engineering Design	Research Publications: 7 h-index: 5 No. of Citations: 50	FEA, Tribology	Tribology, Bio mechanics
	Mr. M. Mohamed Ajmal Mahasin	Engineering Design	Research Publications: - h-index: - No. of Citations: -	Design of Transmission Systems	Design
	Mr. B. Velliyangiri	Engineering Design	Research Publications: 3 h-index: 2 No. of Citations: 54	Design of Transmission Systems	Composites, Engineering Design



Mr. R. Arjun Raj	Engineering Design	Research Publications: - h-index: - No. of Citations: -	Engineering Design	Design
Mr. G. Kannan	Engineering Design	Research Publications: - h-index: - No. of Citations: -	Engineering Mechanics	CAD/CAM
Mr. R. Vinoth	Engineering Design	Research Publications: - h-index: - No. of Citations: -	Design of Jigs and Fixtures	Engineering Design
Mr. T. Venkateshan	Engineering Design	Research Publications: 5 h-index: 1 No. of Citations: 8	Heat transfer	Heat Transfer, Heat Exchanger
Mr.K.K.Elango	Engineering Design	Research Publications: - h-index: - No. of Citations: -	Mechanical design	Design
Mr.G.Gowrisankar	Engineering Design	Research Publications: - h-index: - No. of Citations: -	Design of Jigs and Fixtures	Machine Design
Mr.M.Nandhakumar	Engineering Design	Research Publications: - h-index: - No. of Citations: -	Metal Forming Technology	Components Design

5.5 D Other relevant information:

Table B.5.5b Patent Details

S. No.	Academic Year	Application Number	Name of the faculty	Title of the Patent	Status	Published / Grant date
1	2021 – 22	354212-001	Dr. M. Muthukumar	Serpentine flow channel of fuel cell	Granted	03.12.2021
2	2021 – 22	350136-001	Dr. S. Magibalan	Telescopic walking aid for Handicap	Granted	24.09.2021
3	2021 – 22	202141058630A	Dr. B. Ashok Kumar	IOT Based Smart Polyhouse Farm	Published	14.01.2022



4	2021 – 22	202241012635A	Dr. B. Ashok Kumar	A drone based automatic and autonomous thermal study on sensitive and isolated electrical equipment	Published	18.03.2022
5	2021 – 22	202241005725	Dr. B. Ashok Kumar	Dimensional evaluation of the electrode corner wear during the machining of the EDM process	Published	11.02.2022
6	2021 – 22	202241013925A	Dr. B. Ashok Kumar	Habara Plant Fiber Reinforced Composite Material	Published	25.03.2022
7	2020 - 21	202041055463	Mr. M. Shanmugam	Method to support the two-wheeler and rider during slow-moving traffic with auxiliary support legs	Published	01.01.2021
8	2019 - 20	201941021956A	Dr. M. Easwaramoorthi, Mr. M. Sengottaiyan Mr. D. Subramanian	Roll and pull type uprooting machine with flexible stem clamp	Published	14.06.2019
9	2019 - 20	327095-001	Dr. N. Rengarajan, Dr. M. Muthukumar Mr. M. A. Omprakas	Taper flow field Membrane	Granted	12.02.2020

Table B.5.5c Copy Right Details

S. No	Academic Year	ROC (Registration of Copyright) / Diary Number	Name (s) of the Copyright Holder	Title of the Copyright
1	2021 - 22	L – 113783 / 2022	Dr. M. K. Murthi	Question bank for Finite Element Analysis
2	2019 - 20	L – 88032 / 2019	Dr. M. Muthukumar S. Muruganatham D.Ravichandran	17MEP08 – Dynamics of Machinery Laboratory



Table B.5.5d Guest Lecture delivered details

S. No	Academic Year	Faculty Name	Topic of the Event	College Name	Date
1	2018-2019	Dr. M.Muthukumar	Vibrations and Mechanism for control (ME6505 – Dynamics of Machines)	Sri Shanmugha College of Engineering and Technology, Salem	02.10.2018
2	2018-2019	Dr. M.Muthukumar	Balancing of Rotating and Reciprocating Parts (ME6505 – Dynamics of Machines)	Sri Shanmugha College of Engineering and Technology, Salem	24.09.2018
3	2019-2020	Dr. M.Muthukumar	Fuel cell	Excel Engineering College, Komarapalayam	02.05.2020
4	2020-2021	Dr. M.Muthukumar	Mechatronics Engineering for Industry 4.0 Era	K. S. Rangasamy College of Technology, Thiruchengode	01.06.2020
5	2020-2021	Dr. M. Easwaramoorthi	SAE in Professional Life	Kongu Engineering College, Erode	22.05.2021
6	2020-2021	Dr. M. Easwaramoorthi	Bicycle Design	Knowledge Institute of Technology	05.12.2021
7	2021-2022	Dr. M. Easwaramoorthi	Opportunities in Automotive Engineering	Al Ameen Engineering College, Erode	18.05.2022

NPTEL Courses completed Details*Table B.5.5e Certification in NPTEL*

S. No	Academic Year	Name of the faculty	Name of the course
1	2021 - 22	Dr. M. Easwaramoorthi	Design Thinking – A Primer
2	2021 - 22	Dr. M. Easwaramoorthi	Inspection and Quality control in manufacturing



3	2021 - 22	Dr. S. Magibalan	Inspection and Quality control in manufacturing
4	2021 - 22	Mr. R. Rajkumar	Advanced Thermodynamics and Molecular simulations
5	2019-20	Mr. M. Shanmugam	Energy conservation and waste heat recovery
6	2019-20	Mr. S. Balakrishnan	Fundamentals of Nuclear power generation
7	2019-20	Mr. T. Venkateshan	Non-conventional Energy Resources
8	2019-20	Mr. R. Rajkumar	IC Engines and Gas turbines
9	2019-20	Mr. R. Rajkumar	Effective Engineering Teaching in practice
10	2019-20	Mr. R. Rajkumar	Concepts of Thermodynamics

5.6 Innovations by the Faculty in Teaching and Learning

(10)

Self Assessment (10)

Innovations by the Faculty in teaching and learning shall be summarized as per the following description.

Contributions to teaching and learning are activities that contribute to the improvement of student learning. These activities may include innovations not limited to, use of ICT, instruction delivery, instructional methods, assessment, evaluation and inclusive class rooms that lead to effective,

efficient and engaging instruction. Any contributions to teaching and learning should satisfy the following criteria:



- *The work must be made available on Institute website*
- *The work must be available for peer review and critique*
- *The work must be reproducible and developed further by other scholars*

The department/institution may set up appropriate processes for making the contributions available to the public, getting them reviewed and for rewarding. These may typically include statement of clear goals, adequate preparation, use of appropriate methods, and significance of results, effective presentation and reflective critique.

Table B.5.6a Innovations by the Faculty

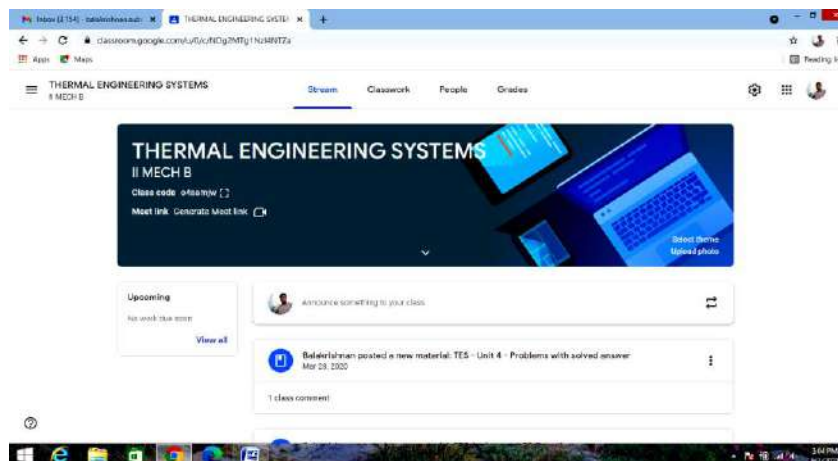
S.No	INNOVATION BY FACULTY	FACULTY NAME
1.	Google class room	All faculty members
2.	Youtube video	Mr.M.Sengottaiyan Mr.B.Sakthivel Mr.T.Venkateshan
3.	Learning by doing	Dr.M.Easwaramoorthi Mr.S.Muruganantham
4.	Teaching through industrial practices	Mr.M.Shanmugam
5.	Waste craft	Mr.V.Chandramohan Mr.M.A.Omprakas
6.	Online test tool : Edmodo	Mr.S.Eswaran
7.	Lecture notes using NPTEL videos	Dr.M.Easwaramoorthi Mr.M.Sengottaiyan
8.	Physical models	Mr.M.A.Omprakas Mr.D.Ravichandran
9.	Cut section models	Mr.S.Balakrishnan Mr.M.Shanmugam Mr.Rajkumar



10.	Project based learning	Mr.V.N.Loganathan Mr.V.Chandramohan Mr.T.Venkateshan Mr.B.Sakthivel Mr.M.Mohamed Ajmal Mahasin
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a. Google class room:

The primary purpose of Google Classroom is to streamline the process of sharing files between teachers and students and conducting classes by inviting students to join the class through a private code. Teachers can create assignments, quiz assignment, questions, topic wise course material, evaluate and assign marks within the Google Class room. Students can see their marks on the Google classroom and share their comments.



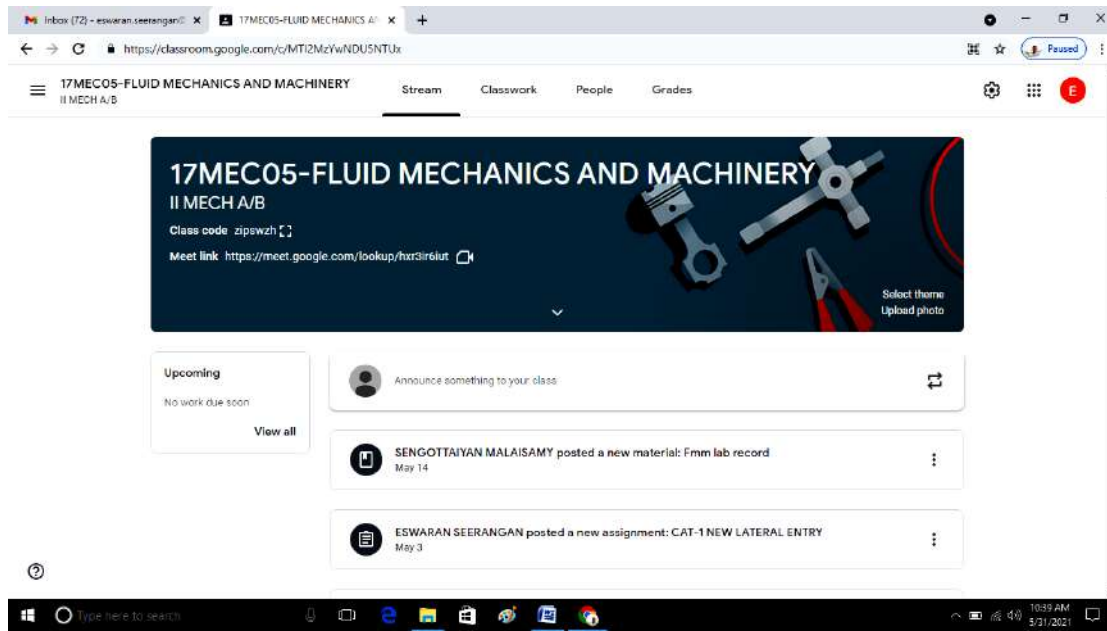


Figure 5.6a Sample Google class room

b. Youtube video:

The main aim of using YouTube video is to make the students to learn visually, allows students to see physically what is being taught and helps them to understand the concepts clearly. Further, it has provision for open conversation and discussion through chat box. The students will have easy access to the source of learning anytime that they want and that too it is free.

Sample YouTube video link

<https://youtu.be/4ECHmnTtzmM>

<https://youtube.com/user/sakthivelme1990>



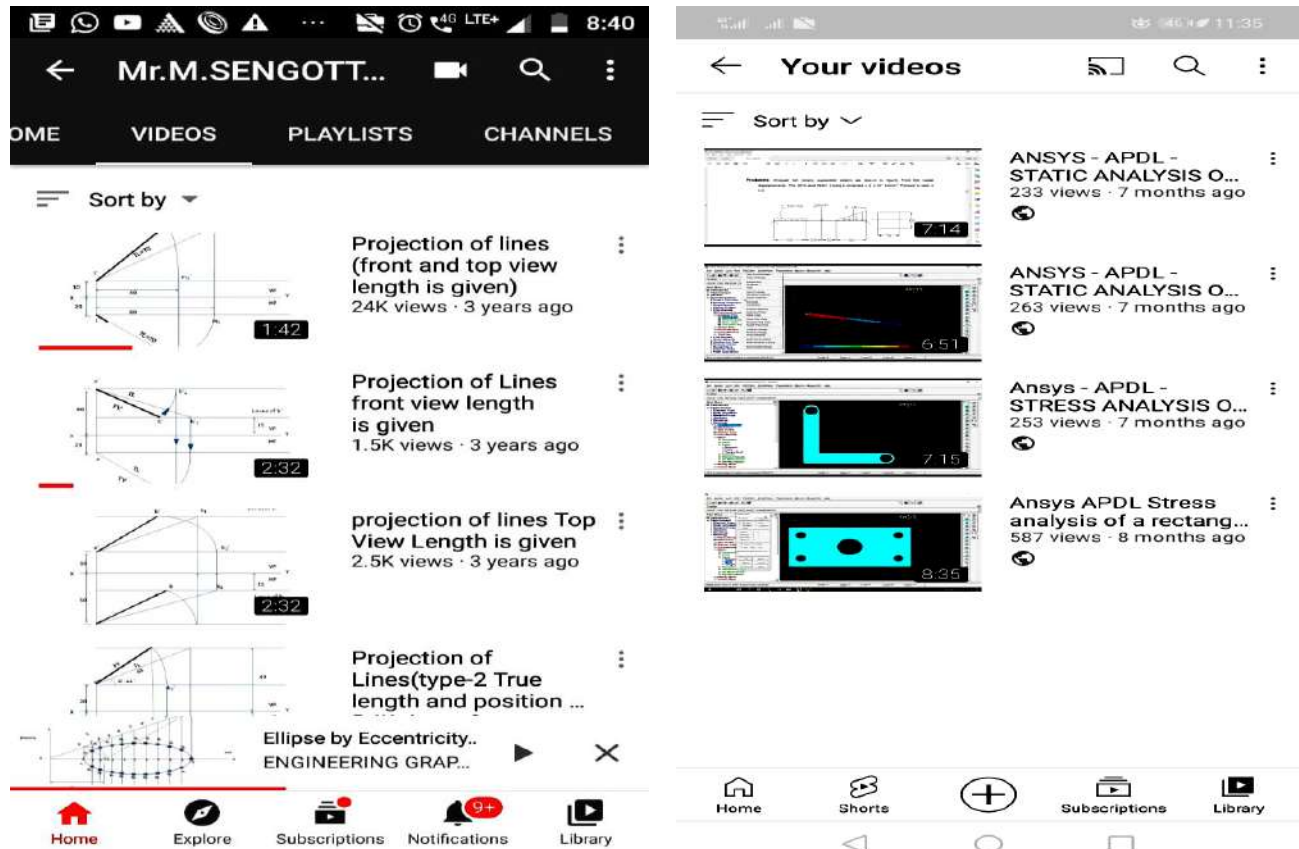


Figure 5.6b YouTube - Sample video

c. Learning by doing

To have an interesting session inside the class room apart from the regular academic activities, we have included learning by doing practice using chart paper and create models. It gives students a feel of real experiential learning and effective engagement in the classroom. We have implemented this method in our classes to increase the learning competence of the student to think and create it.



Figure 5.6c Engineering Graphics – Model development



Figure 5.6d Model development by students

d. Teaching through industrial practices

Industry persons are used to engage students when they come for assessment of laboratory classes. They analyze the student's performance, provide feedback to the students and mentor them about the application of lab experiment. A view of students interaction with industry expert is presented below.



Figure 5.6e Teaching through industrial practices - Teaching page

e. Waste craft

Students are encouraged to fabricate models using waste materials in order to improve their learning and creativity. A glimpse of table fabricated using chain, bolts, nuts, etc., is shown below. This practice helps student to think out of box.







Figure 5.6f Waste craft

f. Edmodo

The Edmodo network enables faculty to share content, distribute quizzes, assignments and manage communication with students. It is free to use. Faculty creates classes with their subject code or name. Faculty posts their questions in the Edmodo for assessment of online questions. After assigning the question, class code will be shared to students by which student can enroll and take test. This platform has many features that allow students to access class information quickly and teachers can respond online instantly.

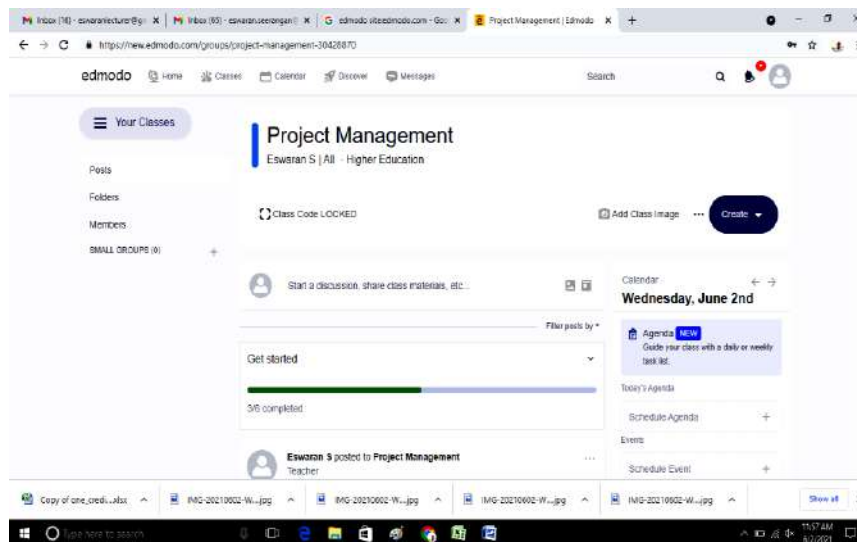


Figure 5.6g Edmodo page



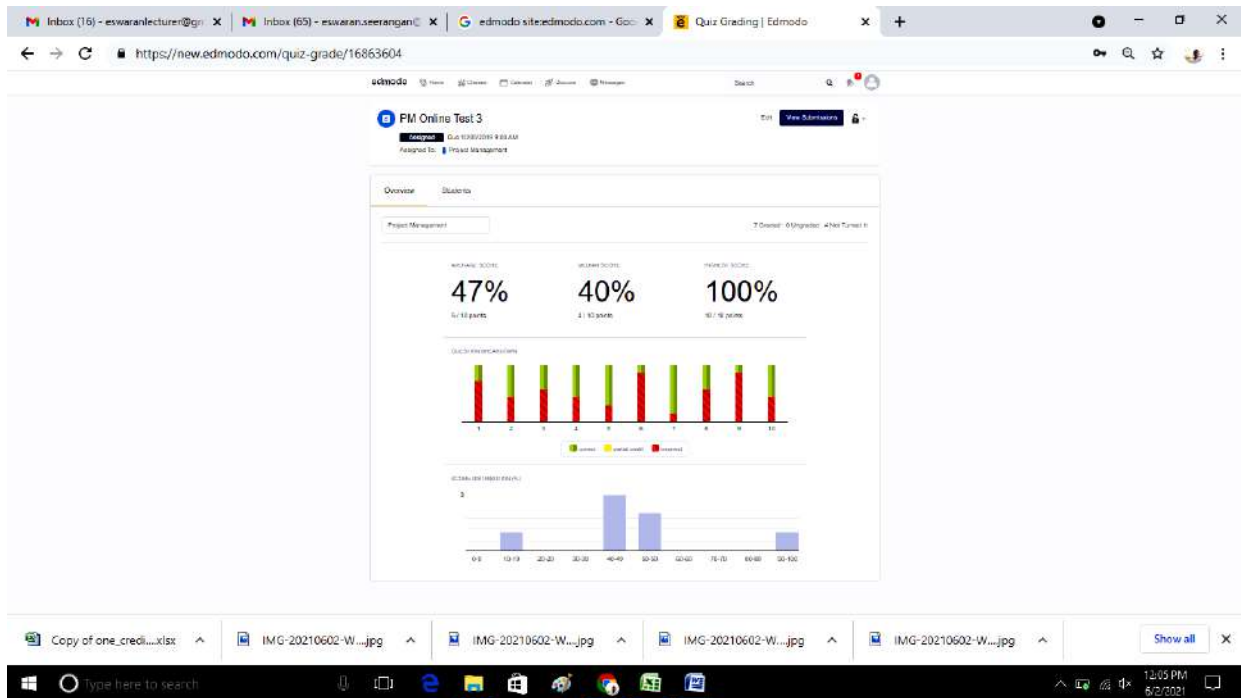


Figure 5.6h Result view page

g. Development of lecture notes using NPTEL videos

Faculty members do online courses periodically on Swayam platform and use the suitable videos for preparing their course materials. This course material is shared among students for better learning. While using videos as part of regular course, students get opportunity to listen experts lecture and understand the concepts easily.

Case study: Developing a product with innovation

ESWARAMOORTHY MUNIAPPAN • Aug 9 (Edited Aug 9)

Reference material

	Lecture 1_ The Seven Conce... Video		Lecture 2_ Design Thinking ... Video
	Lecture 3_ Challenges to In... Video		Lecture 4_ Understanding U... Video
	Lecture 5_ Arriving at Desig... Video		Lecture 6_ Prototyping for ... Video

Class comments

Add class comment...

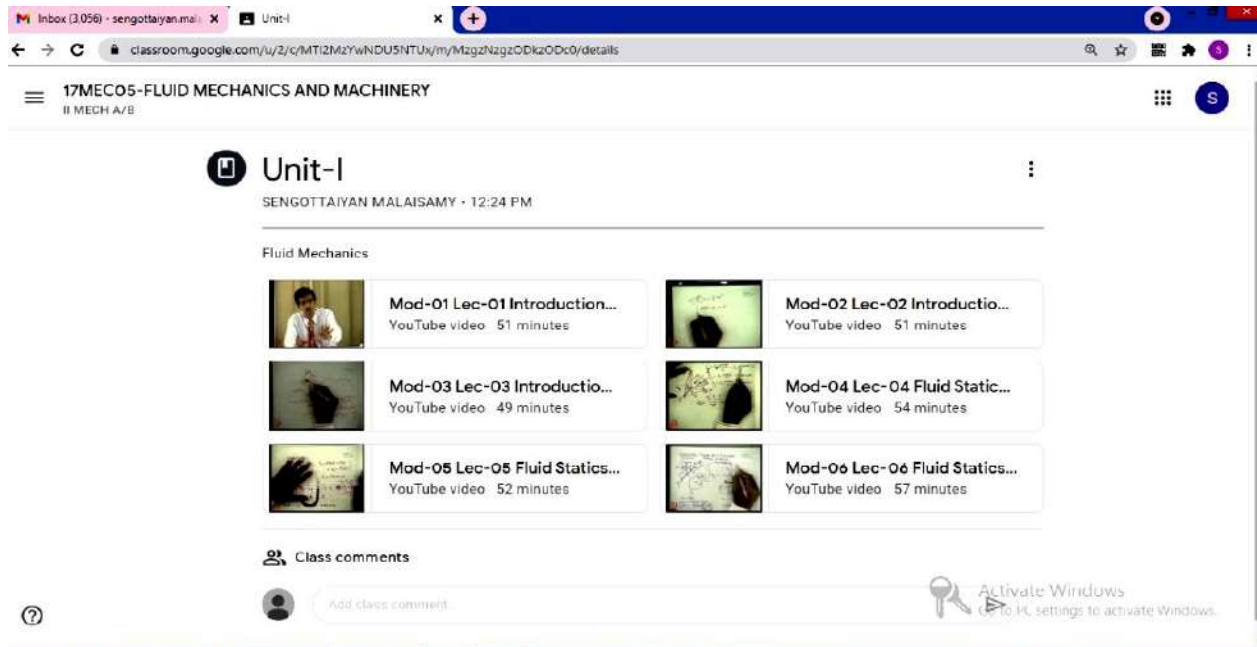


Figure 5.6i NPTEL – Online videos

h. Physical models

Physical models are most effective way of enhancing learning when students are exposed to the models during the lecture. Physical models of complex mechanism are used to increase the understanding levels of students. .





Figure 5.6j Physical models

i. Cut section models

Sections of almost all parts of the engine are taken so as to display internal working parts for easy understanding. Industry experts are engaged as Adjunct faculty to teach specialized topics in the courses. Different working systems are colored to make learning easier. The engine working can be explained effectively by rotating it at a lower speed using an electric motor or by manual. Students can see the components closer, touch and feel it. It will help them to have clear cut thinking about it.



Figure 5.6k Cut section models

j. Project Based Learning (PBL)

Project Based Learning is a teaching method in which students' gains knowledge and skills by doing project as part of their course. This method of teaching inculcates planning, critical thinking, reasoning and creativity. Experience gained during the PBL gives students a sense of accomplishment and further instills responsibility towards learning.

Sample Project : **Automatic bottle filling system**

Project Students: Naveen C (16ME075)

Praveen.R (16ME098)

Jeevanantham M (16MEL09)



Figure 5.6l Automatic bottle filling system

Sample Project : **Pneumatic Mini Crusher**
Project Student : M.Manikandan (17ME068)

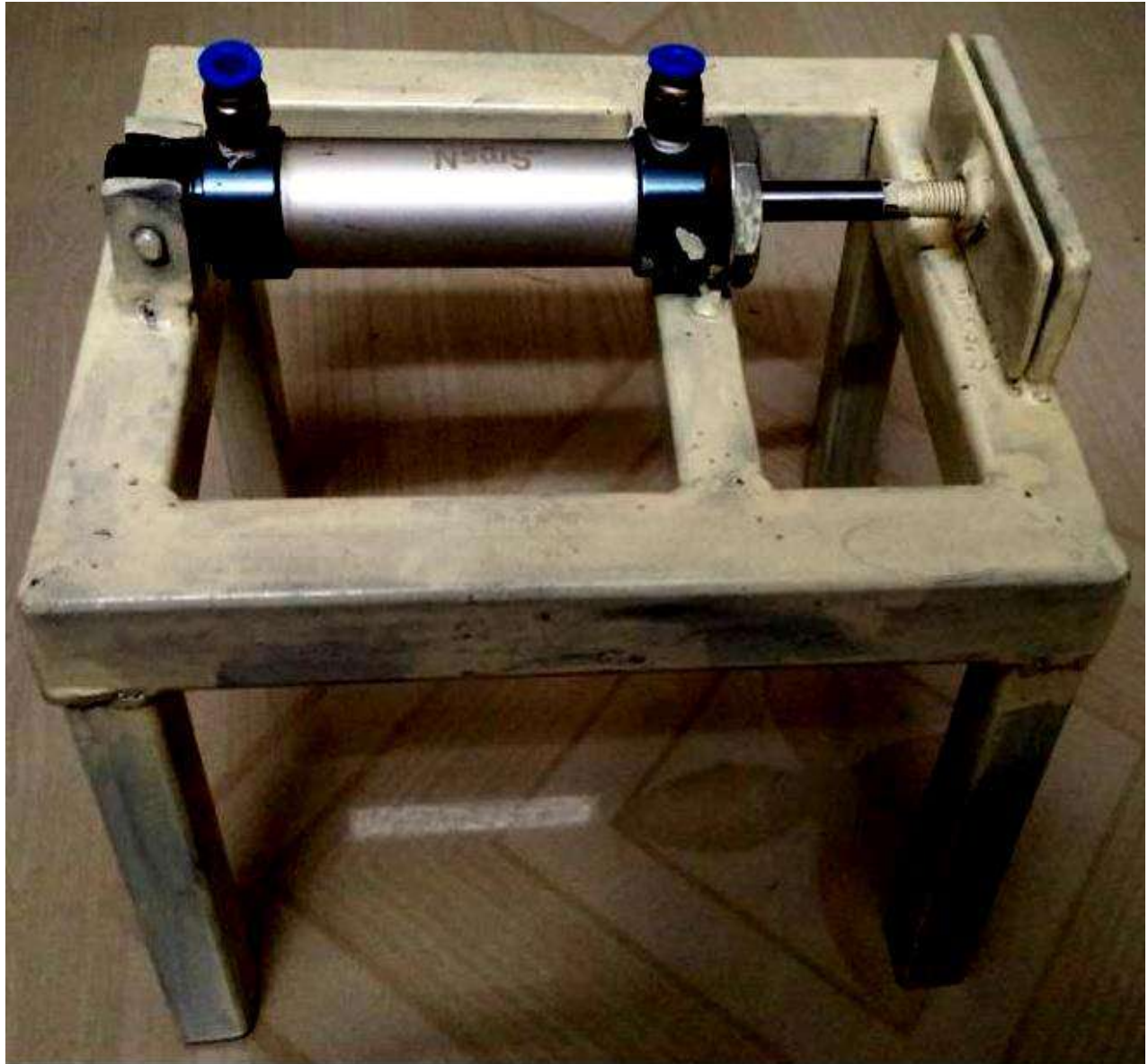


Figure 5.6m Pneumatic Mini Crusher

k. Yoga

Web Link: <http://www.nandhaengg.org/facilities/yoga>

Yoga practice is used to supplement learning process. It is a holistic practice, which helps to gain overall balance and focus. Most of the students experience an increase in mental strength, flexibility, a decrease in stress levels, a feeling of mental clarity and peace. It improves the concentration power of students and helps them to understand the subjects in a better way.



Figure 5.6n Yoga center

5.7 Faculty as participants in Faculty development/training activities/STTPs (15)

(15)

- A Faculty scores maximum five points for participation
- Participation in 2 to 5 days Faculty/ Faculty development program: 3 Points
- Participation >5 days Faculty/ Faculty development program: 5 points

Table B.5.7 Faculty Development/Training activities

Name of the Faculty	Max. 5 per faculty		
	2021-2022	2020-2021	2019-2020
Dr. M. Easwaramoorthi	5	5	-
Dr. M. K. Murthi	3	5	5
Dr. M. Muthukumar	5	5	5



Dr. E. Vimal Kumar	NA	NA	-
Dr. B. Ashok kumar	5	NA	NA
Dr. G. R. Kathiresan	5	-	-
Dr. N. Senthil Prabhu	-	NA	NA
Dr. P. Kumaravel	NA	3	-
Dr. P. Pitchandi	NA	3	-
Dr. P. Vivek	NA	5	-
Dr. A. Perमानan	5	-	NA
Dr.N. Kanagasabapathi	5	-	NA
Dr. S. Magibalan	5	NA	NA
Dr. N. Senniangiri	5	NA	NA
Mr. V. Chandramohan	-	5	-
Mr. V. N. Loganathan	3	3	-
Mr. M. Sampathkumar	5	-	-
Mr. M. Shanmugam	3	5	-
Ms. A. D. Latha	-	3	-
Mr. R. Jeyakumar	5	-	-
Mr. K. Ganesan	NA	-	5
Mr. M. Sengottaiyan	5	3	-
Mr. M. Sugumar	5	5	5
Mr. S. Eswaran	5	5	5
Ms. G. A. Umadevi	3	5	-
Mr. S. Muruganatham	5	5	5
Mr. M. Manikandan	5	5	5
Mr. M. Mohamed Ajmal Mahasin	-	5	5
Mr. D. Ravichandran	5	3	5
Mr. B. Velliyangiri	5	5	5



Mr. B. Sakthivel	3	-	-
Mr. R. Arjun Raj	-	5	5
Mr. G. Kannan	3	-	-
Mr. A. Karthy	NA	NA	5
Mr. R. Vinoth	NA	NA	5
Mr. S. Balakrishnan	3	5	5
Mr. T. Venkateshan	5	3	-
Mr. M. A. Omprakas	-	3	5
Mr. R. Raj kumar	3	5	-
Mr. E. Sivakumar	NA	5	5
Mr. K. K. Elango	NA	NA	-
Mr. M. P. Navin	NA	3	-
Mr.V. Subramaniam	NA	-	NA
Mr. M. Mohankumar	NA	-	NA
Mr. G. Gowrisankar	5	NA	-
Mr. M. Nandhakumar	5	NA	-
Sum	124	112	80
RF= Number of Faculty required to comply with 20:1 Student-Faculty ratio as per 5.1	32	31	35
Assessment = $3 \times (\text{Sum}/0.5 \text{ RF})$ (Marks limited to 15)	23.25	21.67	13.71
Average assessment over last three years (Marks limited to 15)	19.54		



5.8 Research and Development (75)**Self Assessment (45)****5.8.1 Academic Research (20)****Self Assessment (20)**

Academic research includes research paper publications, Ph.D. guidance, and faculty receiving Ph.D. during the assessment period.

- *Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters etc.(15)*
- *Ph.D. guided / Ph.D. awarded during the assessment period while working in the institute (5)*

All relevant details shall be mentioned.

5.8.1 A Number of quality publications in refereed/SCI Journals, citations, Books/Book Chapters

Table B.5.8.1a Summary of Journals Publications

Assessment Year	Scopus	WOS	SCI	Others	Citations
2021-2022	9	5	4	7	4
2020-2021	9	8	5	23	19
2019 - 2020	8	3	3	15	73



Faculty Scopus Citations and h-index Details

Table B.5.8.1b Faculty Scopus Citations and h-index Details

S.No	Name of the staff	Citations	h-index
1	Dr. M. Easwaramoorthi	197	4
2	Dr. B. Ashok Kumar	323	5
3	Dr. M. K. Murthi	13	2
4	Dr. M. Muthukumar	375	8
5	Dr. S. Magibalan	94	6
6	Dr. N. Senniengiri	28	3
7	Dr. M. Manikandan	50	5
8	Mr. B. Velliyangiri	54	2
9	Mr. M. A. Omprakas	38	1
10	Mr. D. Ravichandran	6	1
11	Mr. T. Venkateshan	1	1
12	Mr. R. Rajkumar	2	1

Faculty Google scholar Citations and h-index Details

Table B.5.8.1c Faculty Google scholar Citations and h-index Details

S.No	Name of the staff	Citations	h-index
1	Dr. M. Easwaramoorthi	346	6
2	Dr. B. Ashok Kumar	392	5
3	Dr. M. K. Murthi	30	2



4	Dr. M. Muthukumar	351	10
5	Dr. R. Marappan	551	11
6	Dr. P. Pitchandi	2	-
7	Dr. S. Magibalan	255	11
8	Dr. N. Senniagiri	47	4
9	Dr. M. Manikandan	53	5
10	Mr. V. Chandramohan	23	2
11	Ms. A. D. Latha	13	1
12	Mr. M. Sengottaiyan	3	1
13	Mr. S. Eswaran	3	1
14	Mr. S. Muruganatham	6	1
15	Mr. D. Ravichandran	1	1
16	Mr. B. Velliyangiri	86	2
17	Mr. T. Venkateshan	8	1
18	Mr. M. A. Omprakas	68	2
19	Mr. R. Rajkumar	1	1



Publications details in the year 2021-2022

Scopus: 9, WOS: 5, SCI: 4

Table B 5.8.1d Details of Publications in 2021-2022

S. No	Name of the authors	Title of the research article	Name of the journal	Index
1	B. Ashok Kumar, I. Dinaharan, N. Murugan	Microstructural, Mechanical and Wear Properties of Friction Stir Welded AA6061/AlNp Composite Joints	Journal of Materials Engineering and Performance	Scopus, WOS & SCI
2	Dr.B. Ashok Kumar, N. Viswanathan, V. Vimala, R. Saravanan	Mechanical and metallurgical characterization of AA7075 matrix composite reinforced with Zirconium Boride (ZrB ₂) synthesized by stir casting route	International Journal of Mechanical Engineering	Scopus
3	B. Ashok Kumar, M. Muthu Krishnan, A. Felix Sahayaraj, Mohamad Reda, A. Refaal, G. Yuvaraj, D. Madhesh, Haite Lenin Alla	Characterization of the Aluminium Matrix Composite Reinforced with Silicon Nitride (AA6061/Si ₃ N ₄) Synthesized by the Stir Casting Route	Advances in Materials Science and Engineering	Scopus, WOS & SCI
4	S. Yuvaraj, A. P. Senthil Kumar, Dr.M. Muthukumar, K. Sadesh, S. Janaki	Certain studies on influence of nano catalysts CO ₃ O ₄ , SiO ₂ blended with CME-diesel in combustion	Materials Today: Proceedings	Scopus
5	Dr. N. Senniangiri, S. Magibalan,	Characteristics of Graphenenio/Coconut Oil Hybrid Nanofluid	International Journal of Mechanical Engineering	Scopus



	V. Chandramohan , M. Thangamani,			
6	Praveenkumar. S, Baskar.S, Muthukumar. M	Intensification of proton conductivity through polymer electrolytic membrane using novel electrode pattern	Journal of the Indian Chemical Society	Scopus, WOS & SCI
7	B. Ashok Kumar, Rajasekaran Saminathan, Mohammed Tharwan, M. Vigneshwaran, P. Sekhar Babu, S. Ram, P. Manoj Kumar	Study on the mechanical properties of a hybrid polymer composite using egg shell powder based bio-filler	Materials Today: Proceedings	Scopus &WOS
8	G. Thilak, Rajasekaran Saminathan, S. Srinivasan, P. Manoj Kumar, M.K. Murthi , S. Ram	Analyzing thermal characteristics of an inorganic phase change material	Materials Today: Proceedings	Scopus
9.	Kumar P.A, Vivek J, Senniangiri N, Nagarajan S, Chandrasekaran K	A study of added SiC powder in kerosene for the blind square hole machining of CFRP using Electrical Discharging Machine		Scopus, WOS & SCI



Publications details in the year 2020-2021

Scopus: 9, WOS: 8, SCI: 5

Table B 5.8.1e Details of Publications in 2020-2021

S. No	Name of the authors	Title of the research article	Name of the journal	Index
1	M. A. Omprakas, M. Muthukumar, S. P. Saran, D. Ranjithkumar, C. M. Shantha kumar, S. Thiruppathi Venkatesh, M. Sengottuvelan	Analysis of Shrinkage Defect in Sand Casting by Using Six Sigma Method with Taguchi Technique	IOP Conf. Series: Materials Science and Engineering	Scopus
<u>2</u>	Muthukumar Marappan, Karthikeyan Palaniswamy, Thiagarajan Velumani, Kim Byung Chul, Rajavel Velayutham, Praveenkumar Shivakumar, Senthilarasu Sundaram	Performance Studies of Proton Exchange Membrane Fuel Cells with Different Flow Field Designs – Review	The Chemical Record (Impact factor :6.935)	Scopus, WOS & SCI
3	Muthukumar Marappan, Rengarajan Narayanan, Karthikeyan Manoharan, Magesh Kannan Vijayakrishnan, Karthikeyan Palaniswamy, Smagul Karazhanov, SenthilarasuSundaram	Scaling up Studies on PEMFC Using a Modified Serpentine Flow Field Incorporating Porous Sponge Inserts to Observe Water Molecules	Molecules (Impact factor: 4.927)	Scopus, WOS & SCI



4	Muthukumar M, Senthil Kumar A P, Sasikumar C, Yuvaraj S, Thokchom Subhaschandra Singh	Effect of nanoparticles on the droplet combustion of rice bran oil Biodiesel	Biomass Conversion and Biorefinery	Scopus & WOS
5	Muthukumar Marappan, Magesh Kannan Vijayakrishnan, Karthikeyan Palaniswamy, Karthikeyan Manoharan, Thanarajan Kumaresan, Jyothis Arumughan	Experimental investigation on serpentine, parallel and novel zig-zag flow fields for effective water removal and enhanced performance on 25 cm ² PEMFC	Journal of Ceramic Processing Research	Scopus, WOS & SCI
6	Thokchom Subhaschandra Singh, Uendra Rajak, Abhishek Dasore, M. Muthukumar, Tikendra Nath Verma	Performance and ecological parameters of a diesel engine fueled with diesel and plastic pyrolyzed oil (PPO) at variable working parameters	Environmental Technology & Innovation (Impact factor: 7.758)	Scopus & WOS
7	Subramaniam Shankar, Murugasamy Manikandan, Gunasekaran Raja, Alokesh Pramanik	Experimental investigations of vibration and acoustics signals in milling process using kapok oil as cutting fluid	Mechanics and Industry	Scopus, WOS & SCI
8	Subramaniam Shankar, M. Manikandan, G. Raja, G. Suganya Priyadharashini, Alokesh Pramanik	Experimental studies on viscosity, thermal and tribological properties of vegetable oil (kapok oil) with boric acid as an additive	Micro & Nano Letters	Scopus, WOS & SCI
9	Shankar S,	Investigations on the tribological	Biomass Conversion and	Scopus, WOS



	Manikandan M, Karupannasamy D.K, Pramanik A, Basak A.K.	behaviour, toxicity, and biodegradability of kapok oil bio-lubricant blended with (SAE20W40)mineral oil	Biorefinery	
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Publications details in the year 2019-2020

Scopus: 8, WOS: 3, SCI: 3

Table B 5.8.1e Details of Publications in 2019-2020

S. No	Name of the authors	Title of the research article	Name of the journal	Index
1	M. Eswaramoorthi T. Venkateshan	A Review of Heat Transfer Enhancement Techniques in Heat Exchangers	International Journal of Engineering Trends and Technology	Scopus
2	M. K. Murthi B. Velliyangiri M.Sengottaiyan S.Eswaran	Effect of additives on the performance characteristics of VCR engine fuelled with Karanja oil and blends by varying injection pressure	International Journal of Engineering Trends and Technology	Scopus
3	M. Karthikeyan, M. Muthukumar, P. Karthikeyan , C. Mathan	Optimization of active area of Proton Exchange Membrane fuel cell with better water management	Journal of Ceramic Processing Research	Scopus, WOS & SCI
4	M. Karthikeyan, P. Karthikeyan, M. Muthukumar, V. Magesh Kannan, K. Thanarajan,	Adoption of novel porous inserts in the flow channel of PEM fuel cell for the mitigation of cathodic flooding	International Journal of Hydrogen Energy (Impact factor: 7.139)	Scopus, WOS & SCI



	T. Maiyalagan, Chae-Won Hong, Vasanth Rajendiran Jothi, Sung-Chul Yi			
5	M. Muthukumar , N. Rengarajan, B. Velliyangiri , M.A. Omprakas , C.B. Rohit, U. Kartheek Raja	The development of fuel cell electric vehicles – A review	Materials Today: Proceedings	Scopus, WOS & SCI
6	R. Rajkumar , K. Gopi Kannan, M. Mohanraj	A comparative study of performance and emission characteristics of a diesel engine using various non-edible extracts	Progress in Industrial Ecology	Scopus
7	B. Pitchia Krishnan, V. Vimala , N. Viswanathan, M. Shanmugam	Mechanical properties and Microstructural analysis of similar welded joint of Ti-6 Al-4V Alloy with filler metal ERTi-2	Journal of adv Research in Dynamical & control systems	Scopus
8	T. Krishnamoorthi, K. Anandhu, P. Manickavasagam, D. Ravichandran	Exploration and improving the Life of Spark Plug by treated using Silicon Gel, Cr-Zn Oxide	Journal of Adv research in Dynamical & Control systems	Scopus



Table B 5.8.1f Details of Book Chapters published by the faculty

S.No	Academic Year	Author Name	Title	Title of book	Journal Name
1	2019-2020	M. Muthukumar, A. Ragul Aadhitya, N. Rengarajan, K. Sharan, P. Karthikeyan	Effects of Different Membranes on the Performance of PEM fuel cell	Advances in Automotive Technologies	Lecture Notes in Mechanical Engineering (Indexed by SCOPUS)



5.8.1 B Ph.D. guided / Ph.D. awarded during the assessment period while working in the institute

Table B 5.8.1g Ph.D. Scholars guided details

S. No	Name of the Scholar	Year of Registration	Enrollment Number	Tentative Topic	Supervisor	Status
1	Mr. Pradeepkumar K	2021	21132697231	Investigation and development of high efficient combustion system retrofit with steam generator for turmeric boiling	Dr. M. Easwaramoorthi Prof & Dean Nandha Engineering College, Erode - 52	Provisional registration completed
2	Ms. Sandhiyadevi P	2021	21242697230	Refinement and development of In-situ pyrolytic reactor for biochar production from biomass	Dr. M. Easwaramoorthi Prof & Dean Nandha Engineering College, Erode - 52	Provisional registration completed
3	Mr. Suresh M	2022	22132691119	Studies on tribological and corrosion behavior of 3D printed AL alloys	Dr. M. Easwaramoorthi Prof & Dean Nandha Engineering College, Erode - 52	Provisional registration completed
4	Mr. Mohanraju M	2021	21142691276	Effect of activated flux on mechanical and metallurgical characterization of tig welded dissimilar duplex stainless steel and carbon steel joint	Dr. B. Ashok Kumar, Professor, Nandha Engineering College (Autonomous) Erode - 52	Provisional registration completed
5	Mr. Viswanathan N	2022	22132691151	Mechanical and metallurgical properties of friction welded dissimilar metals with interlayer technique	Dr. B. Ashok Kumar, Professor, Nandha Engineering College (Autonomous) Erode - 52	Provisional registration completed



6	Ms. Vimala V	2022	22272691191	Mechanical and metallurgical characterization of diffusion bonded dissimilar metal joint	Dr. B. Ashok Kumar, Professor, Nandha Engineering College (Autonomous) Erode - 52	Provisional registration completed
7	Mr. Sivaraj C	2022	22142691128	Mechanical and metallurgical characterization of fiber reinforced polylactic acid composite synthesised by 3D printing	Dr. B. Ashok Kumar, Professor, Nandha Engineering College (Autonomous) Erode - 52	Provisional registration completed
8	Mr. Sudharsan G	2021	17122691135	Investigation and optimization on drilling of micro holes using micro ECM on titanium alloy	Dr. S. Magibalan, Assistant Professor, Nandha Engineering College (Autonomous) Erode - 52	Provisional registration completed

Table B 5.8.1h Ph.D. awarded details

S. No	Name of the Candidate	Faculty under which the research is registered	Name of the University	Name of the Guide with Complete Address	Academic Year
1	M. Manikandan 1614269115	Mechanical Engineering	Anna University, Chennai	Dr. S. Shankar, Kongu Engineering College, Perundurai – 638 052	2021-2022
2	S. Arunkumar 11170331006	Mechanical Engineering	Anna University, Chennai	Dr. P. Kumaravel Prof -Mechanical Engineering, Nandha Engineering College, Erode-52	2020-2021



3	M. K. Murthi 11230331046	Mechanical Engineering	Anna University, Chennai	Dr. S. Nithyanandam, Jai Shri Ram Engineering College Avinashipalayam, Tirupur- 638 660.	2018-2019
4	M. MuthuKumar 71030321049	Mechanical Engineering	Anna University, Chennai	Dr. P. Karthikeyan, PSG College of Technology, Peelamedu, Coimbatore - 641004	2016-2017



5.8.2 Sponsored Research

(20)

Self Assessment (5)

Funded research from outside:

(Provide a list with Project Title, Funding Agency, Amount and Duration) Funding Amount

(Cumulative during CAYm1, CAYm2 and CAYm3)

Amount > 50 Lakhs – 20 Marks,

Amount > 40 and \leq 50 Lakhs – 15 Marks,

Amount > 30 and \leq 40 Lakhs – 10 Marks,

Amount \geq 15 and \leq 30 Lakhs – 5 Marks,

Amount < 15 Lakhs – 0 Marks

Table B 5.8.2a Grants received details

S. No.	ACADEMIC YEAR	DURATION	NAME OF THE SCHEME	TITLE	AMOUNT SANCTIONED (RS.)	SANCTIONED DATE & FILE NO.	U/C STATUS
1	2020 - 2021	18 Months	MSME - Support for Entrepreneurial and Managerial Development of MSMEs through Incubators	Roll and pull type uprooting machine	15,00,000/-	03.08.2021 & 6 (19) / 2020-21	Ongoing
2	2019 - 2020		NCW	Legal Awareness	90,000/-	16(79)/2019 -	UC Submitted



		1 Day		programme		2020/NCW(LAP) dated 20.11.2019	
3	2019-2020	1 Day	DST - SERB	Contemporary practices in E-Mobility and Smarter solutions for Indian transport System	50,000/-	F.No. SSY/2020/000020 dated 04-02-2020	Programme not yet conducted due to COVID 19
4	2019-2020	1Day	ISTE	Challenges and Opportunities in Electric Vehicle Design	5,000/-	-	UC Submitted
5	2019-2020	4 Months	TNSCST Project	Reclamation of sewage using solar thermal technology	7,500/-	EME - 042	UC Submitted
6	2019-2020	4 Months	TNSCST Project	Semi-automatic herbicide sprayer with adjustable nozzle for furrow	7,500/-	EME -054	UC Submitted
7	2018-2019	300 Hours	AICTE - PMKVY TI	Draughtsman - Mechanical	2,16,750/-	AICTE-PMKVY TI/2018-2019	UC submitted
8	2018-2019	450 Hours	AICTE - PMKVY TI	CNC Operator	1,53,000/-	AICTE-PMKVY TI/2018-2019	UC submitted
9	2017 - 2018	36 Months	AICTE - RPS	Fuel Cell Lab	24,70,588/-	8-33/RIFD/RPS/ POLICY-1/2016-17	UC submitted
10	2017 - 2018	2 Days	NCW	Challenges and Psychological Aspects of Women left Behind Farmers Suicide	1,28,000/-	16(159)/2017-2018/NCW(SCW)	UC submitted



11	2017 - 2018	1 Day	NCW	Nation Wide Competition to create awareness about the legal rights of women	24,938/-	F.No.09 (2017-18) /NCW/NEC Dated 31-08-2017	UC submitted
Total amount:							}
(2020-2021, 2019-2020, 2018-2019)							

5.8.3 Development activities

(15)

Self-Assessment (15)

Provide details:



- Product Development
- Research laboratories
- Instructional materials
- Working models/charts/monograms etc.

5.8.3 A Product Development



Students are encouraged to do in-house projects that lead to product development. The details of the products developed by the students are given in the table.





Table B 5.8.3a Product Development details

S. No.	Academic Year	Product Title	Students Name	Sample Images
1	2021 - 2022	Waste Heat Recovery in Refrigeration System	C. Jawahar R. Mithun S. Rubalan S. Vignesh	
2	2021 - 2022	Fire Extinguishing Drone	M. Saran kumar	



<p>3</p>	<p>2020 - 2021</p>	<p>Development of Integrated 2 and 3-Wheels Electric Cycle</p>	<p>M. Manikandan P. Manikandan Muhammed Salim</p>	 <p>WHEELCHAIR E-TRICYCLE E-BICYCLE</p>
<p>4</p>	<p>2020 - 2021</p>	<p>Shree Venkatesh</p>	<p>Crocodile Model</p>	



5	2020 - 2021	Pedal operated coconut dehusking machine	M. Mathankumar	
6	2019 - 2020	Coconut Husk remover	M. Dev	






7	2019-2020	Steel Bull	M. Dharun sankar M. Dharanidharan S. Gandhiraj	
8	2018 - 2019	Coconut Tree Climber	K. Mohanapradeep S. Senthilnathan P. Santhosh S. Gokul	
9	2017 - 2018	Tapioca Harvesting Machine	V. Deepanraj P. Lalith kumar N. Madhan kumar S. Aravind	



Table B 5.8.3a Product to Patent details

S. No.	Academic Year	Application Number	Name of the faculty	Title of the Patent	Status	Published / Grant date
1	2021 – 22	354212-001	Dr. M. Muthukumar	Serpentine flow channel of fuel cell	Granted	03.12.2021
2	2021 – 22	350136-001	Dr. S. Magibalan	Telescopic walking aid for Handicap	Granted	24.09.2021
3	2019 - 20	327095-001	Dr. N. Rengarajan, Dr. M. Muthukumar Mr. M. A. Omprakas	Taper flow field Membrane	Granted	12.02.2020

5.8.3 B Research Laboratories

Anna University Chennai approved Research Center for guiding Ph.D. scholars.

Table B 5.8.3b Research centre approval details

S. No.	APPROVAL OF RESEARCH CENTRE LETTER WITH REF. No	DURATION	DATE
1.	Lr. No: 2715/IR/Mechanical/AR2	2020-2021 to 2022-2023	24.07.2020
2.	Lr. No: 4271517/IR/Mech/AR2	2017-2018 to 2019-2020	12.07.2017
3.	Lr. No. 715/IR/Mech/AR1	2014-2015 to 2016-2017	03.07.2014



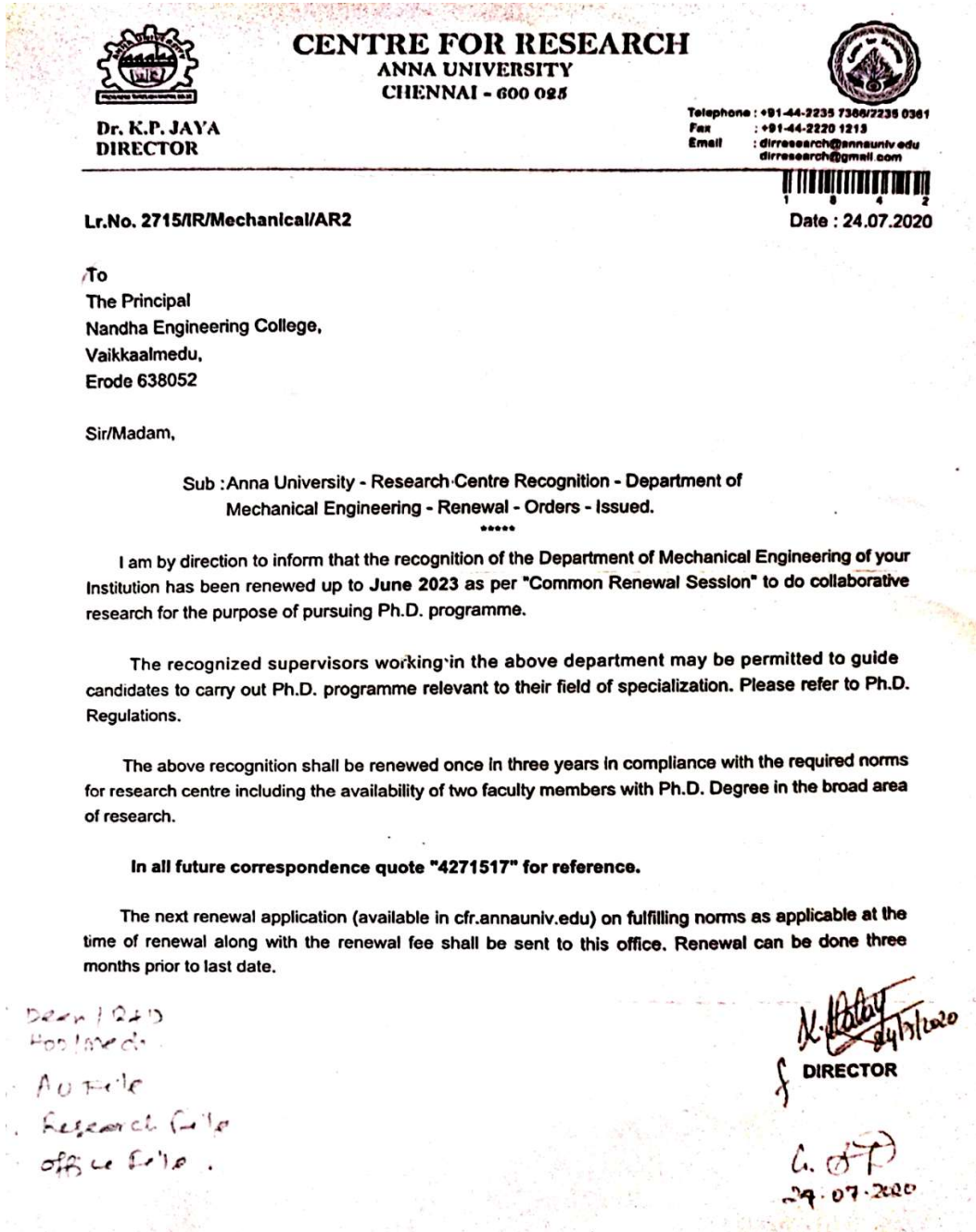


Figure B 5.8.3a Research Center approval Letter



Table B 5.8.3c Research Laboratory

NAME OF THE LABORATORY	NO. OF MACHINE	NAME OF THE IMPORTANT EQUIPMENT
Fuel cell Laboratory	01	Fuel cell test station
Thermal Engineering Laboratory	01	Four stroke Single cylinder Diesel Engine with Data Acquisition system
CAD Laboratory	14	Workstations
Materials Testing Laboratory	Each 01	Universal Testing Machine, Hardness testing

Fuel cell Laboratory:**Figure B 5.8.3b Fuel cell test station**



Figure B 5.8.3c Gas cylinders

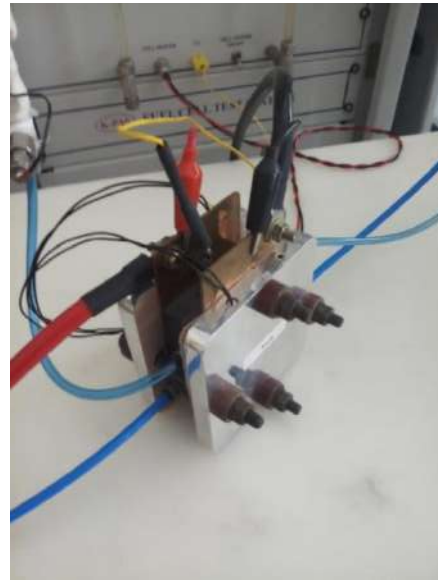


Figure B 5.8.3d Single cell PEM Fuel cell



Figure B 5.8.3e Hot Pressing machine

Thermal Engineering Laboratory:



Fig B 5.8.3f Four stroke Single cylinder Diesel Engine with Data Acquisition system

5.8.3 C Instructional Materials:

- All the course contents prepared by the faculty members are available to the students and the faculty colleagues through Google classroom.
- The faculty members in general prepare the PPT slides, notes in PDF form and also include the relevant video contents.
- They also refer to popular learning links in the international arena.
- The following significant charts are displayed in the Department of Mechanical Engineering to create an ambiance of learning environment for the students
 - Do and Don't displayed in all laboratories.
 - List of equipments details displayed in all laboratories.
 - Lab equipment specification details displayed in all laboratories.

5.8.3 D Working Models/Charts/Monogram:

- The wall charts are displayed in all laboratories
- Display the different usable components in laboratories

Table B 5.8.3d Working model details

S. No	Name of the Laboratory	Name of the working model
1	Thermal Engineering – 1 Lab	4 Stroke Diesel engine cut section model
2		2 Stroke Petrol engine cut section model
3		4 Stroke petrol engine cut section model
4	Dynamics Lab	Slider crank mechanism
5		Four bar mechanism
6		Scotch yoke mechanism
7		Whitworth quick return mechanism
8		Spur gear, Bevel gear, Helical gear, Worm gear and Epi-cyclic gear train
9		Universal joint



Table B 5.8.3e Charts details

S. No	Name of the Laboratory	Name of the charts
1	Dynamics Lab	Balancing of reciprocating mass
2		Universal governor apparatus
3		Multi degree freedom suspension
4		Differential
5		Inversion of four bar mechanism
6		Motorized gyroscope
7		Whirling of shaft
8		Determination of moment of inertia by oscillation
9		Slider crank mechanism
10		Vibration analyzer
11		Dynamic balancing machine
12	CAD Lab	Knuckle joint
13		Flanged coupling
14	Mechatronics Lab	Air preparation units
15		ISO graphical symbols
16		Directional Control valves
17		Signal elements
18		Classifications of Pneumatic Elements
19		Working Elements
20		Final Control valves
21	Fluid Mechanics Lab	Centrifugal Pumps
22	Engineering Practices Lab	Sensitive Drilling Machine and Vertical Drilling Machine
23		Carpentry joints
24	Welding Lab	TIG Welding
25		MIG welding
26		Weld symbols - 1
27		Weld symbols - 2
28		Welded joints



5.8.4 Consultancy (from Industry)**(20)****Self Assessment (5)**

(Provide a list with Project Title, Funding Agency, Amount and Duration)

Funding Amount (Cumulative during CAYm1, CAYm2 and CAYm3):

Amount >10 Lacs – 20 Marks,

Amount ≤ 10 and ≥ 8 Lakh – 15 Marks,Amount < 8 and ≥ 6 Lakh – 10 Marks,Amount < 6 and ≥ 4 Lakh – 5 Marks,Amount < 4 and ≥ 2 Lakh – 2 Marks,

Amount < 2 Lakh – 0 Mark

Table B 5.8.4a Consultancy Details (2021– 2022)

PROJECT TITLE	DURATION	FUNDING AGENCY	AMOUNT (Rs.)
Design and analysis of Catalytic converter	6 Months	M/S, SAN Engineering Solutions, Perundurai	85,932/-
Total Amount			85,932/-

Table B 5.8.4b Consultancy Details (2020– 2021)

PROJECT TITLE	DURATION	FUNDING AGENCY	AMOUNT (Rs.)
Fabrication of manual and electric operated tricycle	6 Months	M/S, ABV Industries, Perundurai	10,000/-
Fabrication of Automatic Road and floor Sweeper machine	6 Months	M/S, ABV Industries, Perundurai	5,000/-
Total Amount			15,000/-



Table B 5.8.4c Consultancy Details (2019– 2020)

PROJECT TITLE	DURATION	FUNDING AGENCY	AMOUNT (Rs.)
Fabrication of Trencher wheel attachment for mini tractor	6 Months	Mr. Natraj, Salem	10,000/-
Design and fabrication of waste heat recovery systems	6 Months	Sindhu Gangai Modern Rice mill, Kangayam	23,000/-
Machining and drilling of automatic thread control system for power loom	6 Months	Mass Electronics, Perundurai	27,030/-
Material Testing	6 Months	Trineva Infra Projects Pvt. Ltd,	8,950/-
Material handling system	6 Months	Shanmathi Constructions Pvt. Ltd, Erode	2,80,300/-
Total Amount			3,49,280/-

Table B 5.8.4d Consultancy Details (2018 – 2019)

PROJECT TITLE	DURATION	FUNDING AGENCY	AMOUNT (Rs.)
Valve Design for irrigation system	6 Months	JK System and Irrigator Industry, Chennimalai.	9,000/-
Valve bonnet - Radiography Test (NDT)	6 Months	VJ NDT Services, Coimbatore	11,000/-
Testing of Mechanical properties	6 Months	Agni Steels Private Limited, Erode	1,000/-
Compression test	6 Months	Agni Steels Private Limited, Erode	600/-
Hardness test	6 Months	Sanmathi constructions, Erode	500/-
Torsion test	6 Months	Agni Steels Private Limited, Erode	500/-
Performance test of biodiesel in diesel engine	6 Months	Jai ShriRam Engineering College, Tirupur	3,000/-
Cutting parameter optimization	6 Months	Subavalar industries, Perundurai	2,500/-



Productivity improvement in steering knuckle machining line	6 Months	Sakthi Auto Components Pvt. Ltd, Pallagoundanpalayam	900/-
Design of multipurpose jigs and fixtures for crankcase	6 Months	Diesel Machinery Works, Perundurai	9,600/-
Testing of materials	6 Months	Annai Infra Developers Private Limited, Erode	19,000/-
Testing of materials	6 Months	Annai Infra Developers Private Limited, Erode	21,150/-
Design of machining plant layout	6 Months	Venbro Polymers, Erode	7,000/-
Design of fixtures for radiating finned bonnet	6 Months	Diesel Machinery Works, Perundurai	18,000/-
Design of waste heat collection systems	6 Months	Sindhu Gangai Modern Rice mill, Kangayam	5,000/-
Testing of water samples	6 Months	Floflex Industries,	1,000/-
Total Amount			1,09,750/-

Cumulative amount of funding during CAYm1, CAYm2 and CAYm3: } = **Rs. 4,74,030/-**
 (2020-2021, 2019-2020, 2018-2019)

5.9 Faculty Performance Appraisal and Development System (FPADS) (10)

Self Assessment (10)

The College follows the self- appraisal method to evaluate the performance of faculty members, which is used for improvement. The Performance appraisal report gives quantitative assessment of a faculty on five Key Result Areas namely

- Academic performance
- Research and Development
- Industry Interface
- Faculty Development
- Student Development



The performance score is calculated for 100 points. Different Performance evaluation (PE) targets are fixed for (1) Deans, Heads, Professors, (2) Associate Professors and (3) Assistant Professors. The faculty from all the departments is given proper orientation with supportive guidelines along with weightages for each parameter. The method of calculation of performance score is also given to the faculty.

A three-step process is conducted for evaluating the actual performance of every faculty based on the guidelines given in the performance evaluation form.

1. Self-Appraisal (Faculty evaluating themselves)
2. Appraisal by Heads/Deans of their department
3. Audit Committee Appraisal (Head/ Deans evaluating the faculty of other Departments)

To ensure uniformity in assessment, duly nominated audit committee conducts the audit and evaluates the point by verifying all the supporting documents shown by the faculty.

The weighted average of the college is calculated based on the following method.

Weighted Average = Sum of Points scored by all faculty/Total No. of Faculty

Bonus Point = Points scored by the faculty – Weighted Average.

The Weighted Average is set as the minimum target level. The faculty members below the minimum target level are advised to attend faculty development programmes inside or outside the college and opportunities are given for their improvement. After the review of the performance appraisal, the faculty members are awarded with Performance Bonus in the Annual Appraisal Day.

A sample faculty appraisal form is attached for reference.

Table B 5.9a Performance Evaluation Form



NANDHA

ENGINEERING COLLEGE (Autonomous)

NANDHA ENGINEERING COLLEGE (Autonomous), ERODE - 638 052					
TAMIL NADU					
Performance Evaluation (PE) Form for Faculty (2019-20)					
Name	:			Emp.ID	:
Designation	:			Dept.	:
Mobile No.	:			E mail ID:	:
Key Result Areas	FUNCTIONAL AREA	PhD, Professor Dean / HoD	> 5 Years / AsP	< 5 Years AP	
Academic Performance	Academic Results				
	Feedback (Principal, Deans / HoD's & Students) (5 points)				
Research & Development	Citations				
	Journal Publications Annexure as per AU, Chennai, Elsevier, UGC prescribed, Scopus Indexed, etc : 5 Points / Paper	__ x 1	__ x 2	__ x 3	
	Journal Publications other than Annexure : 2 Points / Paper				
	Paper presented in International Conference @ IITs, NITs & Leading Colleges : 1 paper = 5 points @ Abroad : 1 paper = 10 points	__ x 1	__ x 2	__ x 3	
	Consultancy (1 Point / 1000 rupees)				
	D. Research Scholars Guided / Scholar (NEC) : 5 points if viva voce completed : 3 points if thesis or 2 if synopsis is completed : 1 point if course work is completed : 1 point if registered (can be claimed once but cannot be every year)				
	Grants Applied / Received a) Project b) Seminar / Workshop / FDP c) Students Project Grant (TNSCST, etc..) d) Other Grants				
Patents / Copyrights					
Industry Interface	Training attended at Reputed Industries (Min. 2 Days) (5 Points per Training)				
	Faculty providing Training to Industry (5 Points per Training)				



	Faculty as a Member on the Board of Industry (5 Points)	__ x 1	__ x 1.5	__ x 2
	Program organized for Industry @ NEC (10 Points)			
	Journal Publications with Industry (3 Points)			
	Industry collaboration for Community Development / Social Responsibility (1 / Sem) (5 Points)			
	Industry Collaboration for Project (5 Points)			
Faculty Development	Programmes (Workshops / Seminars, etc) attended in IITs, NITs & Leading Colleges (1 Point / Day)			
	If a faculty invited as a resource person (5 points)			
	Awards			
	Online Certification Course @ IITs / NPTEL (5 points)			
	New Life Membership / Fellowship of Professional Bodies (2 Points)			
	One Day Workshop / Seminar / Conference / Training - Organized other than grants received (5 Points)			
Student Development	Product Development and submitted to i club (10 Points)			
	GATE / IES / PSUs (10 Points)			
	Placements / Internships in High Salary / Start-ups > Rs. 10,000/- (3 Points)			
	Higher Studies in IITs, NITs, Abroad, Leading Colleges & Universities (10 Points)			
	Students Achievements if any (Other than Sports)			
	Grand Total			

Guidelines:

Academic Results:

For UG I, II, III Years:



Theory:

< 80 = 5 points, 80-84 = 10 points, 85-89 = 15 points, 90-94 = 20 points, >=95= 25 points

Analytical:

<75 = 5 points, 75-79 = 10 points, 80-84 = 15 points, 85-89 = 20 points, >=90 = 30 points

Analytical subjects to be identified by the respective Deans/Heads

For UG Final Year and PG:

<=85 = 5 points, 86-90 = 10 points, 91-95 = 15 points, 96-100 = 20 points

No points for <75 for non-analytical and < 70% for Analytical Paper

Citations: ----- x 0.1 = ----- points

Publications: Cannot claim the points for the same paper (same title) presented in conferences and journals

Consultancy: If more than one faculty member are involved than the points will be divided equally

Grants Applied:

Faculty Project Grants: 5 points

Seminar / Workshop / Any Grants: 2 points

Students Project Grants: 1 point

Grants Received:

Faculty Project Grants: 2 points per lakh (can claim both PI & Co-PI)

Seminar Grants: 5 points (can claim each Co-Ordinators)

PMKVY & FDP Grants: 10 Points (can claim each Co-Ordinators)

Students Project Grants: 3 Points for Guide

Patents:

For every patent applied = 10 Points

Patent Publication = 25 Points

Patent Awarded = 50 Points

Copyrights: 5 Points

Awards (Individual & Department - other than Sports): Points shall be provided based on reputation, which shall be recommended by the audit committee.



Students Achievements: Points shall be provided based on reputation, which shall be recommended by the audit committee.

Note: Leading Institutions - NIRF Ranked Institutions

Implementation:

- Faculty Performance Appraisal and Development System (FPADS) are floated at the beginning of every academic year.
- Faculty members involve themselves in the parameters mentioned in the FPADS and try to score marks.
- Final evaluation is done at the end of every academic year by collecting Performance Evaluation (PE) Form from individual faculty members.
- It is reviewed by the Head of the Department.

Effectiveness:

- Implementation of Faculty Performance Appraisal and Development System (FPADS) results in improvement of academic results.
- There is a considerable improvement in faculty publications in indexed journals, consultancy work, Grants and Patent applied.
- Students development parameter in the appraisal has impact on increase in In-plant training, internship, Higher studies and Project to product development.

5.10 Visiting/Adjunct/Emeritus Faculty etc.

(10)

Self Assessment (10)

Adjunct faculty also includes Industry experts. Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct/Emeritus faculty etc. for all the assessment years:

- Provision of visiting/adjunct faculty (1)
- Minimum 50 hours per year interaction with adjunct faculty from industry/retired



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professors etc. (9)

(Minimum 50 hours interaction in a year will result in 3 marks for that year; 3marks x 3years= 9marks)

Industry experts are engaged as Adjunct faculty to teach specialized topics in the courses and the details are given below.

Table B 5.10a Visiting /Adjunct faculty details (2021-2022)

S.No.	VISITING/ADJUNCT/EMERITUS FACULTY NAME	DOMAIN	HOURS
1	Sree Takshin N CEO & Cofounder, Learner Choice, Tiruppur.	Additive Manufacturing	52 Hrs
2	Venkatesan Uthamarajan Founder & Project Manager, SAN Engineering Solutions, Perundurai.	Design	52 Hrs

In addition to the above adjunct faculty, following industry experts are engaged in the teaching learning process on specialized topics.

S.No.	DATE	NAME OF THE EVENT	TITLE	RESOURCE PERSON	HOURS
1	18.12.2021	Industrial seminar	Industrial Air Pollution and Control	Mr.P.Kumar, Manager-Environmental Department, JSW Steels Ltd, Mecheri.	6 Hrs



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2	18.12.2021 & 19.12.2021	One Credit Course	17MEI02 - Geometric Dimensioning & Tolerancing	Mr.K.C.Pavithran Faurecia Interior Systems, Chennai.	15 Hrs
3	03.01.2022	Industrial Seminar	“3D printing applications in automobile component Manufacturing”	Mr Charath Chander Natarajan Co Founder – MaxCADD, Founder - The Thing Company, Erode.	6 Hrs
4	09.04.2022 & 10.04.2022	One Credit Course	17MEI06 - Industrial Automation & Control (SCADA & HMI)	Mr.S.Sudhakar Axis Global Institute of Industrial Training (AGIIT), Coimbatore	15 Hrs
5	14.05.2022 & 15.05.2022	One Credit Course	17MEI07 - Numerical Modeling of Physical Systems in the Virtual Domain using CFD	Dr.P.T.Saravanakumar Sigma Engineering Services (SES), Coimbatore.	15 Hrs
6	11.06.2022 & 12.06.2022	One Credit Course	17MEI08 - Advanced Industrial Automation & Robotics	Mr.S.Sudhakar Axis Global Institute of Industrial Training (AGIIT), Coimbatore	15 Hrs
TOTAL HOURS					72 Hrs

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Table B 5.10a Visiting /Adjunct faculty details (2020-2021)

S.No.	VISITING/ADJUNCT/EMERITUS FACULTY NAME	DOMAIN	HOURS
1	Dr.S,Rajkumar Vice President (Operation) Rane Engine Valve Ltd., Chennai.	Manufacturing	52 Hrs
2	Mr.V.Frederick Emanuel Design Engineer Onward Technologies Banagalore.	Design	52 Hrs

In addition to the above adjunct faculty, following industry experts are engaged in the teaching learning process on specialized topics.

S.No.	DATE	NAME OF THE EVENT	TITLE	RESOURCE PERSON	HOURS
1	08.04.2021 & 09.04.2021	One Credit Course	17MEI03 - Lean Manufacturing with 5S & Kaizen	Mr.S.Muthusaravanan Associate Head Training, Roots Corporate Training Centre, Roots Industries India Limited , Kathirnaickenpalayam road, Thoppampatti (post), Coimbatore-641017.	15 Hrs



2	15.04.2021 & 16.04.2021	One Credit Course	17MEI05 - Statistical Process Control	Mr.S.Muthusaravanan Associate Head Training, Roots Corporate Training Centre, Roots Industries India Limited , Kathirnaickenpalayam road, Thoppampatti (post), Coimbatore-641017. Mob No:+91 95977 76673	15 Hrs
3	21.01.2021, 22.01.2021 & 23.01.2021	One Credit Course	17MEI02 - Geometric Dimensioning and Tolerancing	Mr.S.Muthusaravanan Associate Head Training, Roots Corporate Training Centre, Roots Industries India Limited , Kathirnaickenpalayam road, Thoppampatti (post), Coimbatore-641017. Mob No:+91 95977 76673	15 Hrs
4	24.11.2020, 25.11.2020 & 26.11.2020	One Credit Course	17MEI05 - Statistical Process Control	Mr.S.Muthusaravanan Associate Head Training, Roots Corporate Training Centre, Roots Industries India Limited , Kathirnaickenpalayam road, Thoppampatti (post), Coimbatore-641017.	15 Hrs
5	22.11.2020, 25.11.2020 & 26.11.2020	One Credit Course	17MEI04 - Press Tool Design and construction for sheet Metal	DR. G.R.Kathiresan, B.E, M.Eng PhD Managing Partner, Standard Enterprises, Madurai. (Manufacturers of Press Tools	15 Hrs



				and sheet metal Components)	
TOTAL HOURS					75 Hrs

Table B 5.10b Visiting /Adjunct faculty details (2019-2020)

S.No.	VISITING/ADJUNCT/EMERITUS FACULTY NAME	DOMAIN	HOURS
1	Mr.N.Sampathkumar Head Training and Development Roots Industries India Limited Coimbatore.	Quality and Industrial Engineering	52 Hrs
2	Dr.K.Eswaramurthi Manger ZF Wind Power Limited Coimbatore.	Design of Production	52 Hrs



S.No.	DATE	NAME OF THE EVENT	TITLE	RESOURCE PERSON	HOURS
1	15.02.2020, 22.02.2020 & 29.02.2020	One Credit Course	17MEI03 - Lean Manufacturing with 5S & Kaizen	Mr.S.Muthusaravanan Associate Head Training, Roots Corporate Training Centre, Roots Industries India Limited , Kathirnaickenpalayam road, Thoppampatti (post), Coimbatore-641017.	15 Hrs
2	11.09.2019 & 14.09.2019	One Credit Course	17MEIO5 - Statistical Process Control	Mr.S.Muthusaravanan Associate Head Training, Roots Corporate Training Centre, Roots Industries India Limited , Kathirnaickenpalayam road, Thoppampatti (post), Coimbatore-641017.	15 Hrs
3	10.08.2019 & 23.08.2019	One Credit Course	17MEI02 - Geometric Dimensioning & Tolerancing	Mr.S.Muthusaravanan Associate Head Training, Roots Corporate Training Centre, Roots Industries India Limited , Kathirnaickenpalayam road, Thoppampatti (post), Coimbatore-641017.	15 Hrs



4	19.06.2019	FDP	Outcome Based education	Dr.P.Selvakumar,ASP/Mech/KEC and Dr.T.Logeswaran,ASP/EEE/KEC.	8 Hrs
5	10.07.2019	Orientation programme	Skill Development for Placement in Core Industries	Mr.N.Sampathkumar, Head Training and Development, Roots Industries India Limited.	8 Hrs
6	06.09.2019 & 07.09.2019	Workshop	Bike and Car Engine Mantling and Dismantling	Mr. P.Mohan Goodwin motors	14 Hrs
7	30.09.2019	Workshop	TQM and Industry 4.0	Mr. B.Thennarasu, Senior Manager, Ashok Leyland Limited, Ennore, Chennai	5 Hrs
TOTAL HOURS					80 Hrs

Table B 5.10c Visiting /Adjunct faculty details (2018-2019)

S.No.	VISITING/ADJUNCT/EMERITUS FACULTY NAME	DOMAIN	HOURS
1	Dr.S,Rajkumar Vice President (Operation) Rane Engine Valve Ltd., Chennai.	Manufacturing	52 Hrs
2	Dr.K.Eswaramurthi Manger ZF Wind Power Limited Coimbatore.	Design of Production	52 Hrs



S.No.	DATE	NAME OF THE EVENT	TITLE	RESOURCE PERSON	HOURS
1	14.07.2018, 28.07.2018 & 11.08.2018	One Credit Course	15MEI03 - Geometric Dimensioning and Tolerancing	Mr.S.Muthusaravanan Associate Head Training, Roots Corporate Training Centre, Roots Industries India Limited , Kathirnaickenpalayam road, Thoppampatti (post), Coimbatore-641017.	15 Hrs
2	23.03.2019 & 24.03.2019	One Credit Course	15MEI02 - Industrial Automation using PLC	Mr.S.Saivignesh Business development engineer, Axis global institute of industrial training, #33, Kathir avenue, Aandal street, Hope college, Coimbatore.	15 Hrs
3	10.7.2018	Industrial seminar	Campus to Corporate	Mr. Sampath Kumar, AGM (Training & development), Roots Industry, Coimbatore	4 Hrs
4	11.8.2018	Industrial seminar	Total quality Management	Dr. K.Eswaramurthi , Manager , Talent Engagement and Development ZF wind power private limited, Coimbatore.	4 Hrs



5	24.08.2018	Industrial seminar	Materials and Manufacturing Engineering for Aerospace application	Dr. T. Ramprabhu Deputy Director, DRDO, Bangalore.	4 Hrs
6	25.08.2018	Industrial seminar	Visual Management in Lean Manufacturing	Dr. S. Rajkumar Vice president (Operations), Rane Engine Valve Ltd. Chennai.	4 Hrs
7	25.07.2018	Seminar	Product Lifecycle Management (PLM)	Mr.D.Raghavendra Manager – University Relations, CoreEL Technogies, Bangalore.	4 Hrs
8	16.03.2019	Workshop	3D Printing	V Engineering Solution, Erode	7 Hrs
9	16.03.2019	Workshop	Automobile	Ambal Training Institute And Team Coimbatore.	7 Hrs
10	16.03.2019	Workshop	Industrial Robotics	Rajasekaran D, Application Engineer, Axis Global Automation, Coimbatore.	6 Hrs
11	16.03.2019	Workshop	Non-Destructive Testing	Mr.Vigneswaran Aurora Institute & Inspection Services And Team, Trichy.	6 Hrs
TOTAL HOURS					76 Hrs



Table B 5.10d Visiting /Adjunct faculty details (2017-2018)

S.No.	DATE	NAME OF THE EVENT	TITLE	RESOURCE PERSON	HOURS
1	26.01.2018 & 27.01.2018	One Credit Course	15MEI04 - Robot Automation using MOTOSIM EG	Mr.Vijay balaji, Application engineer, Axis global institute of industrial training, Coimbatore.	15 Hrs
2	26.01.2018 & 27.01.2018	One Credit Course	15MEI01 - CNC Machines and Programming techniques	Mr.Vijay balaji, Application engineer, Axis global institute of industrial training, Coimbatore.	15 Hrs
3	21.07.2017	Seminar	Recent Trends in Automotive Engineering	Dr.B.Ashok, M.Tech., Ph.D. Assistant professor, Department of Automotive Engineering, School of mechanical Engineering, VIT University, Vellore.	15 Hrs
4	28.07.2017	Seminar	Dreams and Aspirations	Thiru.Santhosh Avvanvar, Chief Commercial Officer, QtPi Robotics,Bangalore.	3 Hrs
5	28.07.2017	Seminar	Materials and Manufacturing Engineering for Aerospace Application	Dr.T.Ramprabhu, Deputy Director / Scientist, Defence R&D Organization, Bangalore.	3 Hrs
6	27.10.2017	Seminar	Career Opportunities	Dr.G.Nagarajan	3 Hrs



			In Mechanical Engineering	Professor, Department of Mechanical Engineering, CEG Campus, Anna University, Chennai.	
7	30.12.2017	Seminar	Computer Aided Modelling (Creo 2.0)	Thiru V.S.Senthil kumar, Managing Director, Diagonal CADD, Perundurai.	3 Hrs
8	06.02.2018	Workshop	Automobile	Ambal Training Institute And Team, Coimbatore.	7 Hrs
9	16.03.2018	Workshop	Robotics Workshop	Rajasekaran D, Application Engineer Axis Global Automation, Coimbatore.	7 Hrs
10	16.03.2018	Workshop	Non-Destructive Testing Workshop	Mr.Vigneswaran, Aurora Institute & Inspection Services and Team, Trichy.	7 Hrs
11	16.03.2018	Workshop	Creo 2.0 Workshop	Progressive CADD, Erode.	7 Hrs
12	16.03.2018	Workshop	3D Printing Workshop	Thiru V.S.Senthil Kumar, Managing Director, Diagonal CADD, Perundurai.	7 Hrs
TOTAL HOURS					92 Hrs



CRITERION 6

FACILITIES AND TECHNICAL SUPPORT



CRITERION 6	Facilities and Technical Support	80
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Self-Assessment (80)**6.1 Adequate and Well-Equipped Laboratories, and Technical Manpower (40)**

The Department of Mechanical Engineering has adequate laboratory facilities to fulfill the needs of program specific curriculum. The laboratories are well equipped with state-of-the-art equipment and licensed software packages to enrich the learning experience. Each laboratory operates on a specific schedule as specified in the Time Table below. Technical support is provided with the help of laboratory technicians guided by the faculty members. Laboratory technicians take care of trouble shooting of electrical faults and maintenance of equipment. Further, the lab technicians facilitate in smooth conduct of experiments. Stock registers are maintained at laboratories detailing the history of the equipment available. The details of technical manpower support at the laboratories are depicted in Table B.6.1a

Table B.6.1a Details of Laboratory

S. No.	Name of the Laboratory	No. of students per Batch	Name of the Important equipment	Weekly utilization status (all the courses for which the lab is utilized) (X+Y+Z)*	Technical Manpower support		
					Name of the technical staff	Designation	Qualification
1	Mechatronics lab	4	<ul style="list-style-type: none"> • Data logging system for Flow, Pressure and Temperature measurement • Electro pneumatic trainer kit • pneumatic trainer kit • AC Servo Motor Controller 	12+2+3	Mr. T. Prakash	Lab Technician	B.E.
2	Thermal Engineering	4	<ul style="list-style-type: none"> • Steam boiler and turbine setup 	12+2+3	Mr. P. Muthusamy	Lab Technician	Diploma



	lab		<ul style="list-style-type: none"> • Wind tunnel apparatus • Four stroke single cylinder diesel engine with electrical load • Four stroke single cylinder diesel engine with Data acquisition system 				
3	CAD Lab	1	<ul style="list-style-type: none"> • HP Pavilion P2-PC/Core i3/8GB DDR 3/500 GB HDD • HP 18.5 – inch LED Backlit LCD Monitor 	18+2+6	Mr. R.Dharmalingam	Lab Technician	B.E.
4	Engineering Practices Lab	4	<ul style="list-style-type: none"> • Power Tools • Demolition hammer • Welding equipments • Plumbing tools • Drilling machine 	12+2+6	Mr. P.Prabhakaran	Lab Technician	B.E.
5	Kinematics and Dynamics Lab	4	<ul style="list-style-type: none"> • Motorized Gyroscope • Whirling speed apparatus • Spring mass system • Cam and follower apparatus 	12+2+3	Mr. M.Ravindhran	Lab Technician	Diploma
6	HMT Lab	4	<ul style="list-style-type: none"> • Emissivity Measurement Apparatus • Pin fin Apparatus • Parallel flow and counter flow apparatus • Forced convection apparatus 	12+2+3	Mr. P. Muthusamy	Lab Technician	Diploma
7	Metrology and Measurements lab	4	<ul style="list-style-type: none"> • Surface Roughness Tester • Digital Bore Gauge • Gear Tooth vernier • Micro meter 	12+2+3	Mr. E. Arulprasanth	Lab Technician	Diploma



			• Digital Vernier calliper				
8	Lathe Shop	4	• Lathe- 18 Nos. • Tool makers microscope • Bench Grinder	12+2+6	Mr. N Senthilnathan	Lab Technician	Diploma
9	Fluids Mechanics and Machinery lab	4	• Orifice and Venture Meter test rigs & Turbines • Pumps	12+2+3	Mr. P.Prabhakaran	Lab Technician	B.E.
10	Manufacturing technology lab	4	• Gear Hobbing Machine • Milling Tool dynamometer • Shaping machine • Horizontal Milling machine • Vertical Milling machine	12+2+3	Mr. N Senthilnathan	Lab Technician	Diploma
11	CAM lab	1	• CNC Turing centre • CNC Milling centre	6+2+12	Mr. R.Dharmalingam	Lab Technician	B.E.

(X+Y+Z)* - X – Practical, Y- Maintenance, Z – Project / Other works

6.1.2 ADDITIONAL FACILITIES CREATED FOR IMPROVING THE QUALITY OF LEARNING EXPERIENCE IN LABORATORIES

6.1.2 a Digital Product Design Lab

Digital Product Design lab is having 15 numbers of work stations as given below to enhance the students' skills in the field of design and product development. This lab is supported by an industry M/s SAN ENGINEERING SOLUTIONS. The industry provides real industrial drawings for practice with latest software package and manpower support. The practice in this lab helps to improve the attainment of PO 3, 4, 5 and PSO 1.





Figure 6.1.2a Digital Product Design Lab

S.No.	NAME OF THE EQUIPMENT
1	HP WS Z400 XEON W3550 8 1TB NVIDA M4000 2GB
2	HP 21.5 LED Monitor 22KD
3	HP Key Board
4	HP Optical Mouse
5	6 KVA With DC Power Back

6.1.2 b Renewable Energy Laboratory

The demonstration of converting sunlight into heat using a solar thermal collector and heating the water through the renewable energy lab. An industry named M/s SARAN SOLAR SOLUTIONS is supporting to demonstrate the technical details of heat conversion and benefits of renewable energy. The practice in this lab helps to improve the attainment of PO3, PO7, PSO3 and PSO4.





Figure 6.1.2b Renewable Energy Laboratory

6.2 LABORATORIES MAINTENANCE AND OVERALL AMBIANCE (10)

6.2.1 Laboratories Maintenance

The laboratories are maintained regularly by laboratory technician headed by laboratory In-charge. The maintenance requirement is reported by laboratory In-charge through reformation website. The completion of the request is ensured by the respective in-charges. The following periodical maintenance activities are done to keep the laboratory in a good ambient environment.

Daily Maintenance:

- Lab technician checks the working condition of the equipment/systems on daily basis.
- A stock register is maintained in each lab.
- Every day cleaning of equipment and work table are done .
- Floor cleaning of labs are done every day by housekeeping department of the college.

Weekly Maintenance:

- Floor mopping of Labs are done twice in a week by housekeeping department of the college.
- The fault is identified with the help of the lab technician and report is sent to the



maintenance manager for action. Calibrations of equipments are done for every six months and a separate file is maintained for calibration reports.

Monthly Maintenance:

- Battery check-up
- The monthly maintenance report is maintained in which the current condition of the equipment are mentioned.
- Every month the earth leakage current of the power cables is checked using megger.

Yearly Maintenance:

- Scrap items in the laboratories are identified with the concern of the lab in-charges, HoD and inspection committee.
- After decision by the inspection committee members the scrap items are sent to the scrap yard.
- Fire extinguishers are regularly refilled

Preventive Maintenance:

- The working conditions of the equipment are periodically checked.
- The students are given instructions in handling the equipment before doing the experiments
- Laboratory manual is given to students which include Do's and Don'ts of the Laboratory, list of experiments and the procedure of doing the experiments.
- Stock register is maintained in Laboratories and audits are conducted by stock verification committee to check the availability and working of the equipments.
- Suitable thickness of the wire based on current rating is used in the fuses to avoid the malfunctioning and breakdown of machines.

Breakdown Maintenance:

Breakdown maintenance is carried out when an equipment completely fails to run and needs repair to resume operation. The process of breakdown maintenance is illustrated below.



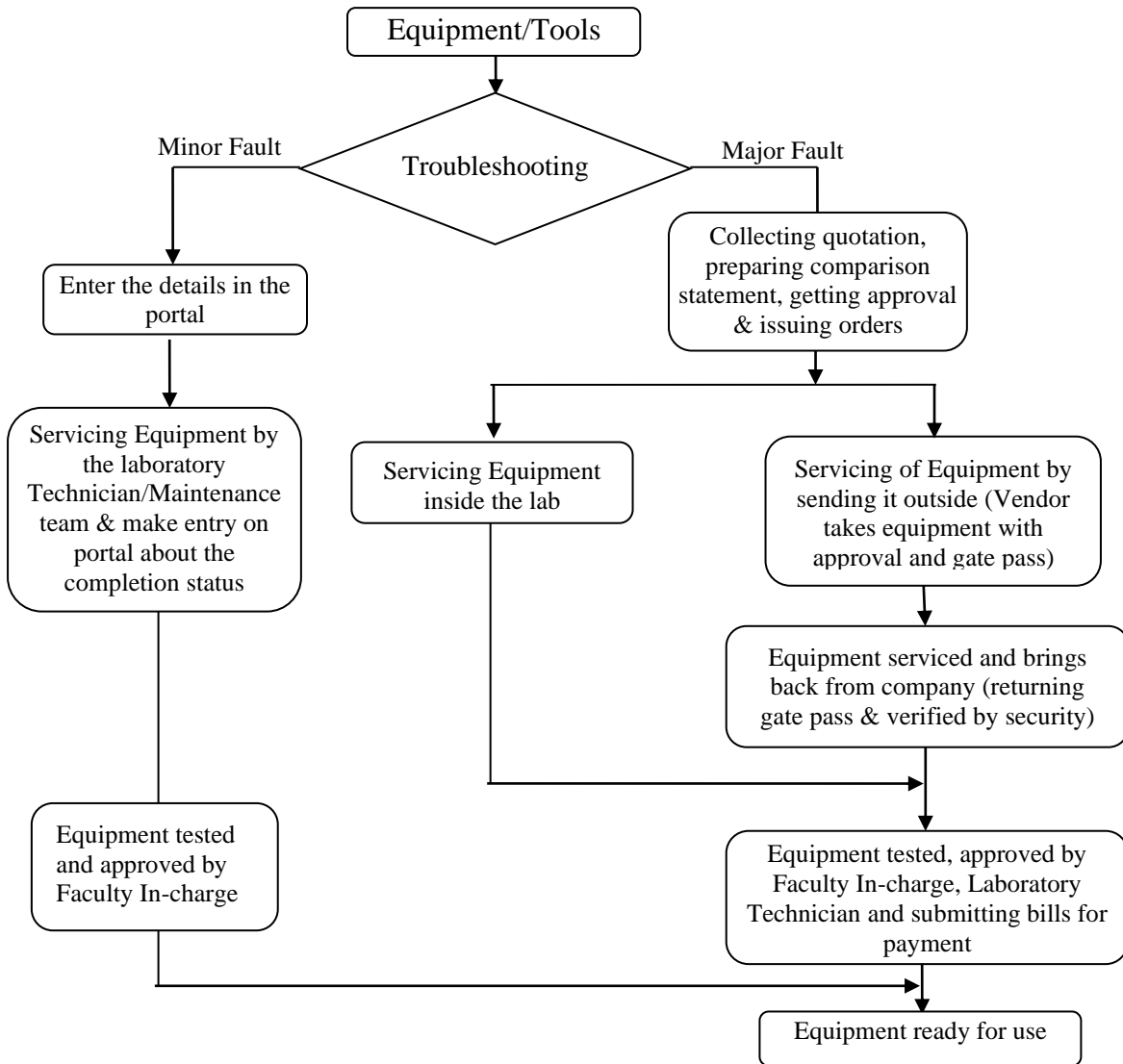


Figure 6.2.1a Process for Conducting Breakdown Maintenance and Repairs of Lab Equipment

The general maintenance works are processed in a systematic and centralized way. A portal developed by the in-house team is used to collect the maintenance requirements. The departments having maintenance complaints enter the details on the portal and the maintenance teams rectify/repair the faults and update the status of completion on the portal itself. A snapshot of the portal is given below.



SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status	reason	days	complete Date
145984	04/03/2019	Tech	NEC	NEC-MECH	Pulg Point Damaged	Block 7 Second floor 202,104,105 classrooms	Complaints	SAMPATH KUMAR N-9842753170	Electrical work	Completed			19/03/2019
145985	04/03/2019	Tech	NEC	NEC-MECH	Tube light Not working	Block7 Second Floor Mech HOD Cabin	Complaints	MURTHI M K-	Electrical work	Completed			19/03/2019
166344	31/03/2019	Tech	NEC	NEC-MECH	Alumini Door Not Locking Properly	Block 7 PG CAD LAB 001	Complaints	PRAKASH P-9976764700	Carpenter	Completed			02/07/2019
176965	02/07/2019	Tech	NEC	NEC-MECH	One AC Not working	CAD/ CAM LAB BLOCK -7 (Groud floor) 002	Complaints	PRAKASH P-9976764700	Electrical work	Completed			10/11/2019
176966	02/07/2019	Tech	NEC	NEC-MECH	Rest Room Door Damaged	Block 7 Second floor	Complaints	PRAKASH P-9976764700	Carpenter	Completed			22/10/2019
176968	02/07/2019	Tech	NEC	NEC-MECH	Need one Window Glass	Block 7 First floor Mech Dean Cabin	Complaints	PRAKASH P-9976764700	Maintenance	Completed			30/09/2019
176969	02/07/2019	Tech	NEC	NEC-MECH	Window Glass Damaged	Block7 class Room No 1102,103,104,105,106,206	Complaints	SAMPATH KUMAR N-9842753170	Carpenter	Completed			30/09/2019
176971	02/07/2019	Tech	NEC	NEC-MECH	Alumini Door Not Locking Properly	Block 7 PG CAD LAB 001	Complaints	SAMPATH KUMAR N-9842753170	Carpenter	Completed			22/10/2019
187019	06/07/2019	Tech	NEC	NEC-MECH	2 FAN NOT WORKING	BLOCK7 CLASSROOM 101,204	Complaints	SAMPATH KUMAR N-9842753170	Electrical work	Completed			03/12/2019
187047	08/07/2019	Tech	NEC	NEC-MECH	WINDOW GLASS BROKEN	BLOCK - 7, GROUND FLOOR, MECHATRONICS LABORATORY	Complaints	MOHAMED AJMAL MAHASIN M-9944166786	Carpenter	Completed			30/09/2019
187056	08/07/2019	Tech	NEC	NEC-MECH	Electrical work has not yet done after shifting the Mechatronics Laboratory.	BLOCK 7, Ground Floor, Mechatronics Lab	Complaints	MOHAMED AJMAL MAHASIN M-9944166786	Electrical work	Completed			29/07/2019

Figure B. 6.2.1b Maintenance of complaints in reformation site

SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status	reason	days	complete Date	Bus No
228723	14/10/2019	Tech	NEC	NEC-MECH	AC Service (Water Leakage from ac)	Block7 Ground floor CAD/CAM LAB 002	Complaints	PRAKASH P-9976764700	Electrical work	Completed			10/11/2019	
228787	18/10/2019	Tech	NEC	NEC-MECH	Window Glass damaged	Block 7, Ground floor, Mechatronics Lab	Complaints	MOHAMED AJMAL MAHASIN M-9944166786	Carpenter	Not Completed				
229138	07/11/2019	Tech	NEC	NEC-MECH	2 tube light not working	block 7 cad cam lab	Complaints	PRAKASH P-9976764700	Electrical work	Completed			08/11/2019	
229139	07/11/2019	Tech	NEC	NEC-MECH	2 TUBE LIGHTS NOT WORKING	BLOCK 7 - MECHATRONICS LAB	Complaints	MOHAMED AJMAL MAHASIN M-9944166786	Electrical work	Completed			08/11/2019	
229205	11/11/2019	Tech	NEC	NEC-MECH	1 tube light not working	block 7 First floor room no 108	Complaints	SARAVANAN N-8870455664	Electrical work	Completed			28/11/2019	
229208	12/11/2019	Tech	NEC	NEC-MECH	Three Base line Not working in boiler	Thermal lab 1 Shed7	Complaints	MURTHI M K-	Electrical work	Completed			03/12/2019	
229320	20/11/2019	Tech	NEC	NEC-MECH	one plug point damaged	block 7 ground floor CAD LAB LAB 002	Complaints	PRAKASH P-9976764700	Electrical work	Completed			28/11/2019	
229321	21/11/2019	Tech	NEC	NEC-MECH	Tube light is not working	Block-7, Fuel cell lab	Complaints	MUTHUKUMAR M-9865923333	Electrical work	Completed			28/11/2019	
229322	21/11/2019	Tech	NEC	NEC-MECH	Auto update problem in Computer.	Block-7, Fuel cell lab	Complaints	MUTHUKUMAR M-9865923333	Technical-Computer	Completed			28/11/2019	
229337	25/11/2019	Tech	NEC	NEC-MECH	1Tube light Not working	Block 7 First floor Steps	Complaints	PRAKASH P-9976764700	Electrical work	Completed			03/12/2019	

Figure B. 6.2.1c Maintenance of complaints in reformation site



6.2.2 OVERALL AMBIANCE OF LABORATORY

The infrastructure and facilities in the laboratories create the right ambience for the students to conduct experiments in the laboratories.

- All the labs have sufficient space, LED Projector, ventilation, ceiling fans and adequate lighting for conducting experiments comfortably.
- All laboratories are equipped with essential equipment to meet the requirements of the curriculum. The laboratory manuals prepared are available in both soft and hard copies.
- Furniture is provided in each laboratory for the students to work comfortably.
- Notice board is fixed at the entry point of lab and is used to disseminate the information to students.
- List of experiments, equipment specification, working models/charts and DO's & DON'Ts are displayed in the laboratories.
- For maintaining the overall good ambience, daily and weekly cleaning of equipment/lab are carried out and ensured by faculty in-charge. .
- UPS facility/ generator support for electricity backup are available round the clock for uninterrupted power supply.
- Fire extinguishers and first aid kits are available in all the laboratories as a safety measure.

The laboratories of Mechanical department are classified under four major divisions such as design, manufacturing, thermal and Mechatronics Laboratory. The space availability of these laboratories is specified below:



Table B.6.2.2a Area of Laboratories

S.No.	Name of the Laboratory	Area in sq. ft.
1	Engineering Practices Lab	1290
2	Lathe Shop	3360
3	Manufacturing Technology Lab	2400
4	CAM Lab	1428
5	Metrology and Measurements Lab	1230
6	CAD Lab	1716
7	Kinematics and Dynamics Lab	1716
8	Fluids Mechanics and Machinery Lab	3105
9	Thermal Engineering Lab	2960
10	Heat and Mass Transfer Lab	891
11	Mechatronics Lab	1320





Figure B. 6.2.2a Engineering Practices Lab



Figure B. 6.2.2b Lathe Shop



Figure B. 6.2.2c Manufacturing Technology
Lab



Figure B. 6.2.2d CAM Lab





Figure B. 6.2.2e Metrology and Measurements Lab



Figure B. 6.2.2f Computer Aided Modeling and Drafting Lab



Figure B. 6.2.2g Kinematics and Dynamics Lab



Figure B. 6.2.2h Fluids Mechanics and Machinery lab





Figure B. 6.2.2i Thermal Engineering Lab

Figure B. 6.2.2j Heat and Mass Transfer
Lab



Figure B. 6.2.2k Mechatronics Lab



6.3 SAFETY MEASURES IN LABORATORIES (10)

Students are given proper safety orientation, instructions before handling the equipment/system/component during their lab to prevent accidents. The important safety measures followed in labs are depicted below.

Table B. 6.3a Safety Measures in Laboratories

S.No.	Name of the Laboratory	Safety Measures
1	All labs	<ul style="list-style-type: none"> • Must wear safety shoes. • Must tie up and cover long hair. • Must wear safety goggles or face shield (depending upon the nature of experiments). • Must be familiar with the location of emergency stop button to turn off all electrical power for emergency. • Do not wear loose hanging garment. • Open-toed shoes or sandals are not permitted in the shop • Student must take the permission of the laboratory staff before handling any machine.
2	Workshop	<ul style="list-style-type: none"> • Fire extinguishers • First aid kit
3	Lathe Shop	<ul style="list-style-type: none"> • Safety platforms • Fire extinguishers • First aid kit
4	Metrology and Measurements Lab	<ul style="list-style-type: none"> • Fire extinguishers • First aid kit
5	Dynamics Lab	<ul style="list-style-type: none"> • Fire extinguisher • First aid kit
6	CAD Lab	<ul style="list-style-type: none"> • Electrical Wires Protected by MCB, RCBO and Fuses • Fire extinguisher • First aid kit



7	Fluids Mechanics and Machinery Lab	<ul style="list-style-type: none"> • Electrical Wires Protected by MCB, RCBO and Fuses • Fire extinguisher • First aid kit
8	Mechatronics Lab	<ul style="list-style-type: none"> • Electrical Wires Protected by MCB, RCBO and Fuses • Fire extinguisher • First aid kit
9	Manufacturing Technology Lab	<ul style="list-style-type: none"> • Electrical Wires Protected by MCB, RCBO and Fuses • Fire extinguisher • First aid kit
10	Thermal Engineering Lab	<ul style="list-style-type: none"> • Electrical Wires Protected by MCB, RCBO and Fuses • Fire extinguisher • First aid kit • Fire accident prevention buckets
11	HMT Lab	<ul style="list-style-type: none"> • Electrical Wires Protected by MCB, RCBO and Fuses • Fire extinguisher • First aid kit • Beware of heat while taking readings.
12	CAM Lab	<ul style="list-style-type: none"> • Electrical Wires Protected by MCB, RCBO and Fuses • Fire extinguisher • First aid kit





Figure B. 6.3a Welding shield to protect eyes



Figure B. 6.3b Safety platforms in lathe



Figure B. 6.3c First aid box available in the laboratory



Figure B. 6.3d Electrical Wires Protected by MCB in laboratories





Figure B. 6.3e Do's and Don'ts in laboratories



Figure B. 6.3f Fire extinguisher in all laboratories



Figure B. 6.3g Fire accident prevention buckets near laboratories



Figure B. 6.3h Electrical Wires Protected by RCBO and Fuses in laboratories

6.4 PROJECT LABORATORY (20)

The Project Laboratory offers the students, the opportunity to gain valuable hands-on experience with state-of-the-art environment where students become proficient in both the physical and creative skills needed in the field of Mechanical Engineering. Three components are added in the curriculum to enable the students to do projects.

- Project Based Learning (PBL) from 3rd semester onwards
- Project work-I in 7th semester
- Project work-II in 8th semester
- Innovation day projects at institution level (3 days in year and honored by prizes)

Adequate space and time slot are allotted for doing projects in the laboratories based on the specialization of project. The Project Laboratory has a key role in promoting practical learning experience, creative thinking, and execute their project ideas. A glimpse of projects works carried out at laboratories is listed below.



Figure B.6.4 Project laboratory





Figure B.6.4a Bull Fabrication



**Figure B.6.4b Go Kart Vehicle
Fabrication Work**



Figure B.6.4c Demonstration of Project



**Figure B.6.4d Aero model design and
Fabrication Work**



CRITERION 7

CONTINUOUS IMPROVEMENT



CRITERION 7	Continuous Improvement	75
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Self Assessment (70)

7.1 Actions taken based on the results of evaluation of each of the COs, POs & PSOs (30)

Self Assessment (30)

Identify the areas of weaknesses in the program based on the analysis of evaluation of COs, POs & PSOs attainment levels. Measures identified and implemented to improve POs& PSOs attainment levels for the assessment year including curriculum intervention, pedagogical initiatives, support system improvements, etc.

Examples of analysis and proposed action **Sample 1**-Course outcomes for a laboratory course did not measure up, for some of the POs like (Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice) are not realized for the given COs.

Sample 2-In a course on Programming languages, student performance has been consistently low with respect to some COs. Analysis of answer scripts and discussions with the students revealed that this could be attributed to a weaker course on vector calculus.

Action taken-revision of the course syllabus was carried out (instructor/text book has been changed, when deemed appropriate).

Sample 3-In a course that had group projects it was determined that the expectations from this course about PO3 (like: “to meet the specifications with consideration for the public health and safety, and the cultural, societal, and environmental considerations”) were not realized as there were no discussions about these aspects while planning and execution of the project.

Action taken- Projects are selected and evaluations are performed based on the above criteria.



POs & PSOs Attainment Levels and Actions for improvement - CAY only

Table B.7.1 POs & PSOs Attainment Levels and Action Taken for Improvement

POs & PSOs Attainment Levels and Actions for improvement (2021-2022)			
PO1: Engineering Knowledge: an ability to apply knowledge of Mathematics, Science and Engineering			
POs	Target Level	Attainment Level	Observations
PO1	65 %	72.61%	Target achieved.
PO2: Problem Analysis: an ability to design and conduct experiments, as well as to analyze and interpret data			
POs	Target Level	Attainment Level	Observations
PO2	65%	66.75%	Target achieved.
Action 1: Action 2: Design and Analysis Laboratory courses are on-roll to train students on available design and analysis software namely Auto CAD, Solid Works, and ANSYS.			
PO3: Design/ Development of Solutions: an ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, ethical, safety, manufacturability and sustainability			
POs	Target Level	Attainment Level	Observations
PO3	65%	65.80%	Target achieved.
PO4: Conduct Investigations of Complex Problems: an ability to function on multidisciplinary teams to solve complex problems			
POs	Target Level	Attainment Level	Observations
PO4	65%	65.67%	Target achieved.
PO5: Modern Tool Usage: an ability to use the techniques, skills and modern engineering tools necessary for engineering practice			
POs	Target Level	Attainment Level	Observations
PO5	65%	68.98%	Target achieved.



PO6: The Engineer and Society: an ability to infer societal, health, safety, legal & cultural issues and consequent responsibilities relevant to the professional engineering practice.

POs	Target Level	Attainment Level	Observations
PO6	65%	56.48%	Target not achieved.

Action 1: Internships/industrial visit/in-plant training was arranged to understand the aspects of an engineer's work and its impact in societal, health, safety, legal & cultural issues.

Action 2: Club activities, Awareness programs and interactive sessions are arranged for the students to act as a professional engineer considering the societal, health, safety, legal & cultural issues

Action 3: Courses like Constitution of India and Essence of Indian tradition are incorporated in the curriculum as non-credit courses helps the students to understand their societal and safety needs during their engineering practices.

PO7: Environment and Sustainability: an ability to explain, compare and summarize the impact of engineering solutions for sustainable development with societal and environmental perspective

POs	Target Level	Attainment Level	Observations
PO7	65%	53.35%	Target not achieved.

Action 1: Hands on training on various Non-Destructive Techniques are given to make the students to understand the concepts of NDT.

Action 2: Field visits to several renewable energy plants are organized. Students are guided to take up solar thermal energy related projects.

Action 3: Students are engaged in tree plantation and other social activities through Tree Plantation and NSS clubs to understand environmental impacts.

Action 4: MoUs have been signed with Sustainable Communities India Private Limited and Saran solars for enhancing technical skills related to energy management in industries

PO8: Ethics: an understanding of professional and ethical responsibility

POs	Target Level	Attainment Level	Observations
PO8	65%	54.93%	Target not achieved.

Action 1: Personal values have been introduced as a non-credit course for educating students



about professional and ethical responsibilities.

Action 2: Ethical practices and moral values in industries have been demonstrated during industrial visits, in-plant trainings and through industrial seminars by industrial experts.

Action 3: Students are assigned with responsibilities as Event Coordinators/ Volunteers in organizing programs through Department association/Profession Society to learn the professional and ethical responsibilities.

PO9: Individual and Team Work: an ability to function effectively as an individual / team in different environments

POs	Target Level	Attainment Level	Observations
PO9	65%	65.06%	Target achieved.

PO10: Communication: an ability to communicate effectively

POs	Target Level	Attainment Level	Observations
PO10	65%	54.05%	Target not achieved.

Action 1: Inter-department meet have been conducted through department association in all semesters.

Action 1: Soft Skill- Listening and speaking; Soft Skills- Reading and Writing are introduced in the curriculum as a course to improve the communication and presentation skills.

Action 2: Assessments like assignments, viva voce in laboratory courses are followed effectively for improving the writing and reading skills of the students.

Action 3: Seminars/Project presentations are used as a platform to improve the communication skills.

PO11: Project Management and Finance: an ability to apply knowledge of engineering and management principles to the projects

Pos	Target Level	Attainment Level	Observations
PO11	65%	66.70%	Target achieved.

PO12: Life-long Learning: an ability to recognize the need for life-long learning

Pos	Target Level	Attainment Level	Observations
PO12	65%	66.91%	Target achieved.



PSO1: Ability to design mechanical systems with required specifications using latest software packages

PSOs	Target Level	Attainment Level	Observations
PSO1	65%	73.02%	Target achieved.

PSO2: Ability to identify sustainable materials and technologies for alternate engineered solutions

PSOs	Target Level	Attainment Level	Observations
PSO2	65%	65.83%	Target achieved.

PSO3: Ability to apply the concepts and principles of manufacturing engineering to innovate and to create products and processes with sustainable manufacturing

PSOs	Target Level	Attainment Level	Observations
PSO3	65%	58.01%	Target not achieved.

Action 1: Students take up fabrication projects and learn the product development cycle.

Action 2: Industrial visits to manufacturing companies have been organized

Action 3: One credit courses titled Press tool design and construction for sheet metal, Lean Manufacturing with 5S and KAIZEN, Statistical process control have been organized in association with leading industries

PSO4: Ability to provide solution to challenges in the solar thermal systems

PSOs	Target Level	Attainment Level	Observations
PSO4	65%	57.40%	Target not achieved.

Action 1: Field visits to solar systems inside the institution and other plants outside have been arranged for the students.

Action 2: Students are guided to take up solar thermal energy related projects.

Action 3: Industry supported lab namely Renewable Energy lab is established to provide experience to the students in the solar energy conversion



7.2 Academic Audit and actions taken thereof during the period of Assessment (15)

(Academic Audit system/process and its implementation in relation to Continuous Improvement)

Self-Assessment (15)

The Institution has an Internal Quality Assurance Cell (IQAC) to improve the quality of education. IQAC cell includes Principal, six senior administrative officers, nine teachers, management representative, nominees from local society, industry, alumni and final year student, and a coordinator. The prime task of the IQAC is to develop a system to improve the overall performance of the institution. It channelizes all efforts and measures of the institution towards promoting its holistic academic excellence. Further, it promotes institutional functioning towards quality enhancement through internalization of quality culture and institutionalization of best practices.

Quality assurance initiatives of the institution are

- Academic Audit
- Department Appraisal

The academic audit is conducted through Academic Audit Committee, to assess the progress of system performances to ensure the quality in education.

The academic audit committee consists of senior faculty members from various programmes. The committee has one faculty member at Professor Level as chief coordinator and two senior faculty members as coordinators with other faculty members as auditors. The process of auditing is presented as a flowchart in Figure B.7.2a.

The frequency of academic auditing is once in a semester. Standard formats are given to departments for preparing course files. Faculty members will prepare course files before the semester starts as per recommendations.

The academic committee performs first level of audit during the starting of semester and verifies the contents of the course file, lesson plan, assignments, extra material lecture notes, etc. The comments of the committee are given as feedback to the faculty member to include the recommended material.



The second level of auditing is performed during the end of semester by the HoDs with senior faculty members of the respective department to ensure the adherence of instructions given by the audit committee through a check list.

Third level of auditing is performed by engaging senior faculty members from leading colleges as external auditors and all academic related process are audited during the end of each semester.

Feedback is communicated to the faculty member for all three levels of audit and action taken on non-conformity is ensured by the audit team and reviewed by the Head of the institution. This audit ensures the quality deliverables to the students.

Quality audit like department appraisal is done to ensure various parameters such as Academic results, Placement, research, faculty achievement/contribution, project development. Progress of the department appraisal is monitored through monthly presentation. At the end of the year, an audit committee is formed to audit the department appraisal and departments are honored in the appraisal day.



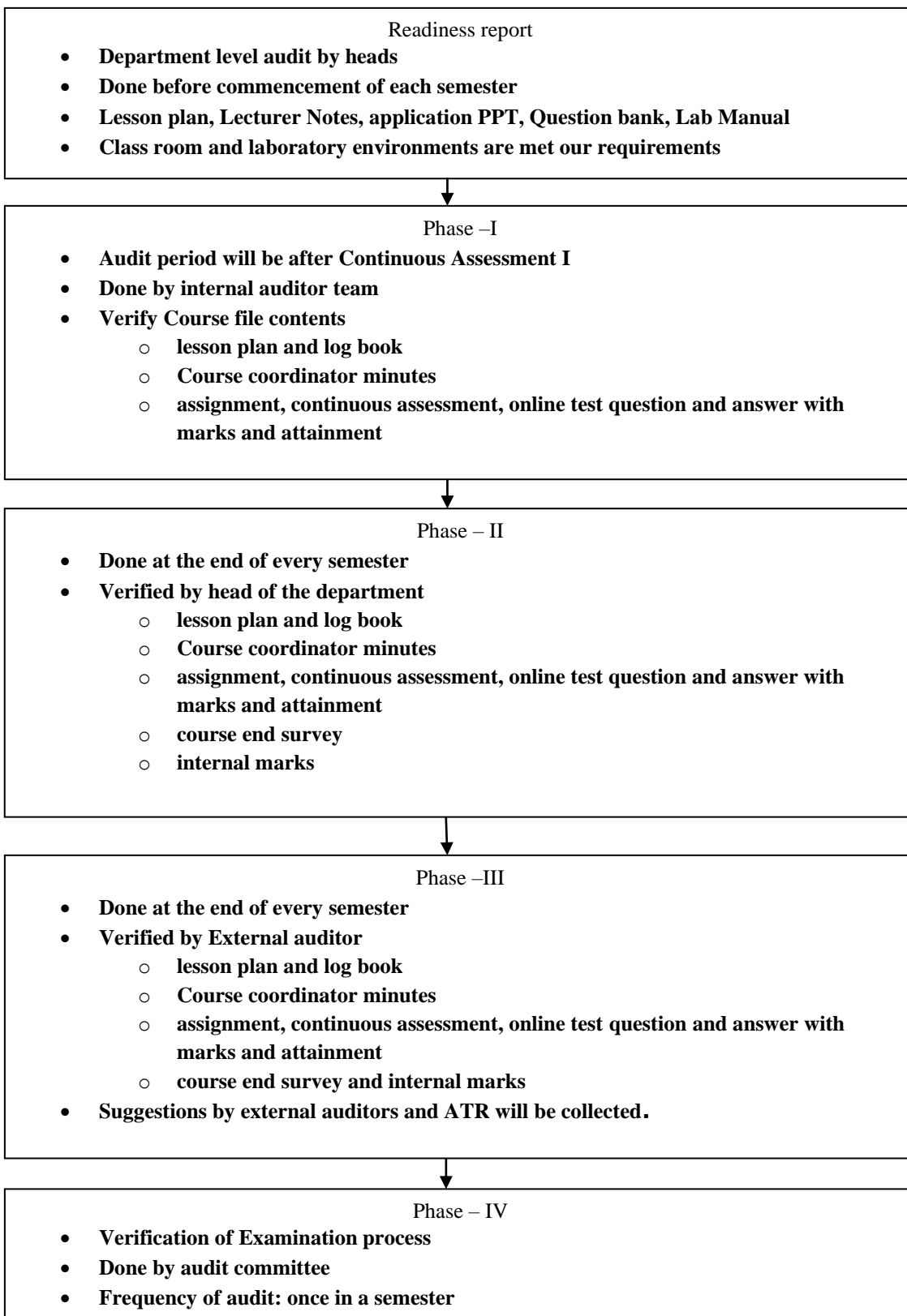


Figure B 7.2a Flow Chart for Academic Audit

Standard formats are given to departments for preparing course files. Faculty members will prepare course files before the semester starts as per recommendations mentioned in below table.

Table B. 7.2a Course File Content

S. No.	TABLE OF CONTENTS
1	VISION & MISSION OF THE INSTITUTE AND DEPARTMENT, PEOs, PSOs & POs
2	SYLLABUS
3	MAPPING OF CO & PO AND MAPPING OF CO & PSO
4	ASSESSMENT OF CO
5	ACADEMIC CALENDAR
6	CLASS TIME TABLE
7	STUDENT NAMELIST
8	ZEROTH COURSE COORDINATORS MEETING MINUTES
9	LESSON PLAN
10	a) ASSIGNMENT QUESTIONS, KEY AND MARK b) ONLINE TEST / QUIZ KEY & MARK c) CAT QUESTIONS, KEY, MARK AND ATTAINMENT d) COURSE COORDINATORS MEETING MINUTES
11	COURSE END SURVEY AND ANALYSIS
12	CONTINUOUS ASSESSMENT MARKS STATEMENT
13	END SEMESTER QUESTION PAPER
14	END SEMESTER RESULT
15	OVERALL ATTAINMENT
16	ATTAINMENT OF PO
17	ATTAINMENT OF PSO
18	LECTURE NOTES (HAND WRITTEN/PPT/E – CONTENT)
19	LOG BOOK
20	SAMPLE ANSWER BOOKLETS



Readiness Report

Department level audit is done by Heads before commencement of each semester. Lesson Plan, Lecture Notes, application PPT, Question bank, Lab manual, Class room and laboratories are audited and reported.



NANDHA ENGINEERING COLLEGE, ERODE-52
 DEPARTMENT OF MECHANICAL ENGINEERING
 CHECK LIST-ACADEMIC THEORY-EVEN SEM 2019-20

Class/Sem	Subject Name	Faculty Name	Lesson plan	Lecture notes	PPT		Question bank with answers	Faculty Signature with date	Dean/HOD Signature	Remarks
					Notes	Application				
II Year II/IV	Statistics and Numerical Methods	Mr.G.S.Murugapandi	✓	✓	✓	✓	✓	[Signature] 17/12		
		Mr.G.S.Murugapandi Mrs.R. Loganayagi	✓	✓	✓	✓	✓	[Signature] 17/12		
	Kinematics of Machinery	Mr.D.Ravichandran	✓	✓	✓	✓	✓	[Signature] 17/12		
		Mr.D.Ravichandran	✓	✓	✓	✓	✓	[Signature] 17/12		
	Thermal Engineering Systems	Mr.M.Shanmugam	✓	✓	✓	✓	✓	[Signature] 17/12		
		Mr.S.Balakrishnan	✓	✓	✓	✓	✓	[Signature] 17/12		
	Subtractive Manufacturing Processes	Mr.V.Chandramohan	✓	✓	✓	✓	✓	[Signature] 17/12		
		Mr.M.Sugumar	✓	✓	✓	✓	✓	[Signature] 17/12		
	Strength of Materials	Dr.M.Eswaramoorthi	✓	✓	✓	✓	✓	[Signature] 17/12		
		Mr.M.A.Omprakas	✓	✓	✓	✓	✓	[Signature] 17/12		
	Welding Engineering	Mr.M.Sampathkumar	✓	✓	✓	✓	✓	[Signature] 17/12		
		Mr.T.Venkateshan	✓	✓	✓	✓	✓	[Signature] 17/12		

M. Sampathkumar
 IN CHARGE
 17-12-19

[Signature]
 HOD
 17/12/19

Figure B 7.2b Screenshot of Check-List Academic Theory Report



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NANDHA ENGINEERING COLLEGE, ERODE-52

DEPARTMENT OF MECHANICAL ENGINEERING

CHECK LIST-ACADEMIC LABORATORY-EVEN SEM 2019-20

Class/ Sem	Place (Block/Floor/No.)	LAB Name	Faculty Name	Lab manual	Equipment working condition Status	PPT	Printed record note Book-Soft Copy	Whether all experiments tested by faculty	Experiment and Equipment display in notice board	Faculty Signature with date	Dean/HOD Signature	Remarks
						Appli cation						
E YEAR	Block -7 Ground floor	Kinematics of Machinery	Mr.D.Ravichandran	✓	✓	✓	✓	✓	✓	✓		
	"		Mr.S.Eswaran	✓	✓	✓	✓	✓	✓	✓		
	Block -6 Ground floor	Strength of Materials	Dr.M.Eswaramoorthi	✓	✓	✓	✓	✓	✓	✓		
	"		Mr.M.A.Omprakas	✓	OK	✓	✓	✓	✓	✓		
	Shed-7	Thermal Engineering Systems	Mr.S.Balakrishnan	✓	✓	✓	✓	✓	✓	✓		
	Shed-7		Mr.R.Rajkumar	✓	✓	✓	✓	✓	✓	✓		
	Shed-3	Subtractive Manufacturing Processes	Mr.V.Chandramohan	✓	OK	✓	✓	✓	✓	✓		
	"		Mr.M.Sugumar	✓	✓	✓	✓	✓	✓	✓		

IN CHARGE
M. Sathya Jay
17.12.19.

HOD
17/12/19

Figure B 7.2c Screenshot of Check-List Academic Laboratory Report



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NANDHA ENGINEERING COLLEGE, ERODE-52
 DEPARTMENT OF MECHANICAL ENGINEERING
 CHECK LIST-INFRASTRUCTURE CLASS ROOM- EVEN SEM 2019-20

S.No	Class/Year	Place (Block//No.)			Black board	Projector	Window Screen	Desk and Bench	Faculty incharge Signature with date	DEAN/HOD Signature	Remarks
		Block	Floor	No.							
1	II	7	1	101	1	not working 1	8	38/38	<i>[Signature]</i> 17.12.19		
2	II	7	1	102	1	—	6	36/36	<i>[Signature]</i> 17.12.19		

M. Senthil Kumar
 INCHARGE
 17.12.19

M. K. HOD
 HOD
 18/12

Figure B 7.2d Screenshot of Check-List Infrastructure Report




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Phase I audit:

Audit is conducted at the mid of every semester. A team of internal auditors will do the audit. They will report the discrepancies and suggestions. The Action Taken Report (ATR) will be collected from the respective auditors. It is proposed to conduct Phase-I Audit for the academic year 2019-2020 (ODD Semester) on 27.08.2019 and 28.08.2019 as per the flexible time of auditors and subject handling faculty members. The assessment period for the audit will be CAT – I (II, III and IV Years).

Hence, the auditors are requested to visit the departments assigned as given below and submit a report on or before 13.09.2019



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Phone: 04294-225585, 223711, 223722, 226393, Fax: 04294-224787
Website : www.nandhaengg.org E.Mail: info@nandhaengg.org

Dr. N.Rengarajan , B.Sc., B.Tech. M.E., Ph.D
PRINCIPAL

NEC/Cir/2019-2020/AAC001

Date: 17.08.2019 Time : 11.00 AM


CIRCULAR

Classification	ROUTINE	IMMEDIATE
Academic	Originator : PRINCIPAL	Circulated to : Deans and HODs

Sub: Academic Audit – Reg.

It is proposed to conduct Phase-I audit for the academic year 2019-2020 (Odd Semester) on 27.08.2019 and 28.08.2019 as per the flexible time of auditors and subject handling faculty members. The assessment period for the audit will be CAT – I (II, III & IV Years).

Hence, all the Heads of the Departments are requested to inform the subject handling faculty members to update their records and extend their support for smooth conduct of the academic audit.


PRINCIPAL

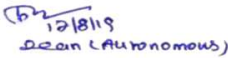

 Dean (Autonomous)

Figure B 7.2e Screenshot of Academic Audit Circular



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E.Mail: info@nandhaengg.org

Dr. N.Rengarajan, B.Sc., B.Tech. M.E., Ph.D
PRINCIPAL

NEC/Cir/2019-2020/AAC002

Date: 13.09.2019

Time : 11.00 AM

CIRCULAR

Classification	ROUTINE	IMMEDIATE
Academic	Originator : PRINCIPAL	Circulated to : Deans and HODs

Sub: Academic Audit – Reg.

With reference to the circular dated 17.08.2019, NEC/Cir/2019-2020/AAC001, a team of faculty members has conducted Phase-I (Level-I) auditing for CAT-I (II Year, III Year & IV Year). The findings of audit team are summarized below:

S. No.	Documents Audited	Details of Courses Audited	Nature of Discrepancy
1	Log Book	II Agri – Surveying and Levelling Faculty: Mr. Manikandan AP/Civil	CAT and Assignment Mark not entered in Log Book
2	Online Test (Question Paper, Answer Key)	Statement of Marks	II, III, IV Mech Not Submitted due to Edmodo Problem

Hence, Heads of the departments are requested to correct the discrepancies and submit the action taken report on or before 19.09.2019.

Dr. N.Rengarajan
13/9/19
Dean (Mech)

N.Rengarajan
13/9/19
PRINCIPAL

Figure B 7.2f Summary of Academic Audit Report



Figure B.7.2.f gives the detailed documents, audited along with the details of the courses and nature of discrepancies had been circulated for level 1 auditing.

NANDHA ENGINEERING COLLEGE, ERODE-52
(Autonomous)
DEPARTMENT OF MECHANICAL ENGINEERING

Action taken Report for academic audit Report for circular dated on 17.08.2019, NEC/Cir/2019-20/AAC001

S. No	Documents audited	Details of course Audited	Faculty Name	Nature of Discrepancy	Action Taken
1	Online Test (Question Paper, Answer Key)	Statement of Marks	II,III, IV Mechanical Classes	Online Test Question paper and answer key not submitted Edmodo problem	CAT1 Question paper and answer key had been completed and verified by the Auditors on 24.8.2019


 HoD-Mech
 25/8/2019

Figure B 7.2g Summary of Academic Audit ATR



Phase II audit

Phase II audit is conducted by the Head of the Department at end of every semester before the phase III audit and report will be pasted in the left side cover of course file

NANDHA ENGINEERING COLLEGE (Autonomous), ERODE – 52
 DEPARTMENT OF MECHANICAL ENGINEERING
 DEPARTMENT LEVEL AUDIT

Course Name:				Year/Sem.:			
Vision, Mission of College & Program, PEO, PO & PSO							
TIME TABLE							
SYLLABUS							
LESSON PLAN							
ACADEMIC CALENDAR							
ASSIGNMENT-1				ASSIGNMENT-2			
QP	Answer Key	Statement of Marks	Sample Assignments	QP	Answer Key	Statement of Marks	Sample Assignments
/	/	/	/	/	/	/	/
		Quiz/Online Test/Tutorial -1		Quiz/Online Test/Tutorial -2		Quiz/Online Test/Tutorial -3	
QP		/		/		/	
Answer Key		/		/		/	
Statement of Marks		/		/		/	
QP	ANSWER KEY	STATEMENT OF MARKS	SAMPLE BOOKLETS	ATTAINMENT LEVEL			
CAT 1							
/	/	/	/	/	/	/	/
CAT 2							
/	/	/	/	/	/	/	/
CAT 3							
/	/	/	/	/	/	/	/
RECAT							
/	NA	NA	NA	NA	NA	NA	NA
COURSE CO-ORDINATOR MEETING MINUTES							
1		2		3		4	
/		/		/		/	
COURSE END SURVEY							
QUESTION BANK (MCQ, 2 marks, 16 marks)							
CONTINUOUS ASSESSMENT MARK STATEMENT							
LECTURE NOTES							
APPLICATION PPT/ANNIMATION							
END SEM		QP		ANSWER KEY			
				NA			
FINAL ATTAINMENT AFTER END SEM RESULT							
NA							
LOG BOOK							
/							
END SEM FEEDBACK							
NA							

[Signature]
Faculty / C

[Signature]
HoD

[Signature]
Dean

Figure B 7.2h Screenshot of Course File Checklist



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Phase III audit

Phase III audit is conducted with external and internal auditor. A sample circular has been shown below for the assessment period 2019-20(ODD Semester). The nature of discrepancy stated by the auditors had been rectified.

The allocation of auditors for academic audit 2019-20 (ODD Semester) is given below. Auditors are requested to follow the schedule on 14.02.20&15.02.20 for the smooth conduct of academic audit.



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Dr. N.Rengarajan , B.Sc., B.Tech. M.E., Ph.D
PRINCIPAL

NEC/Cir/2019-20/AAC016

Date: 11.02.2020

Time : 09.30 AM

CIRCULAR

Classification	ROUTINE	IMMEDIATE
Academic	Originator : PRINCIPAL	Circulated to : Deans and HODs,

Sub: Academic Audit 2019-2020 (Odd Semester) – Reg.

Academic audit of 2019-2020 (Odd Semester) is scheduled on 14.02.2020 & 15.02.2020 for all UG & PG programmes. The assessment period for audit will be CAT-I, CAT-II and CAT-III of all years. The detailed schedule of the audit is listed below.

Date & Time of Audit	Audit Team	Department to be Audited	Venue
14.02.2020 (9.30 am – 12.30 pm), (1.30 pm – 4.30 pm)	<u>External Auditor</u> Dr. S. J. Suji Prasad, Associate Professor, Department of EIE, Kongu Engineering College, Erode. <u>Internal Auditors</u> 1. Mr. Karthy A. AP/Agri 2. Mrs. Uma P. AP/CSE 3. Mr. Rajasekaran K. AP/Chem 4. Mrs. Thaarani T. G. ASP/ECE 5. Mr. Shrigowtham M.N. AP/IT 6. Mr.Sengottaiyan M. ASP/MECH 7. Mr. Chandramohan V. ASP/MECH 8. Mr. Eswaran S. AP/MECH 9. Mrs. P. Devi AP/Maths (BME)	BME	Block – V (Ground Floor) Civil Lab
		CHEM	
		CIVIL	
		ECE	
		EEE	
		EIE	

Figure B 7.2i Screenshot of External & Internal Academic Audit Circular





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Dr. N.Rengarajan , B.Sc., B.Tech. M.E., Ph.D
PRINCIPAL

Date & Time of Audit	Audit Team	Department to be Audited	Venue
15.02.2020 (9.30 am – 12.30 pm), (1.30 pm – 4.30 pm)	External Auditor Dr.T.Rameshkumar, Associate Professor, Mechanical Engg., Bannari Amman Institute of Technology, Sathyamangalam. Internal Auditors 1. Dr. Murugesan A. Prof/Chem 2. Mrs. Selvi K. AP/Civil 3. Mrs. Sasirekha S. ASP/CSE 4. Mrs. Amutha R AP/MATHS(Civil/Chem) 5. Mr. Prabhakaran G. AP/ECE 6. Mrs. Vijayalakshmi R. AP/EEE 7. Mr. Arun Kumar V. AP/EEE 8. Mrs. Kavitha S. AP/CSE 9. Dr. Sukumar P. Prof/ECE 10. Mr. Ganesh R.M. AP/EIE 11. Ms.Jayanthi P. AP/CHEM(Civil/CSE/EEE)	AGRI	Block – V (Ground Floor) Civil Lab
		CSE	
		IT	
		MECH	
		MBA	
		MCA	
Overall Coordination	Dr. M. Easwaramoorthi, Dean – MECH. Dr. V. Manimegalai, Prof/MBA Ms. N. Zahira Jahan, ASP/MCA		

Hence, all the Heads/Deans of the Departments are requested to inform the faculty members to keep the documents ready for the audit.

[Signature]
11/2/2020

[Signature]


PRINCIPAL

Figure B 7.2j Screenshot of External & Internal Academic Audit Circular



Phase – III Audit

Phase – III is conducted at the end of every semester. A team of internal auditors along with external auditors will do the audit. They will report the discrepancies and suggestions. The Action Taken Report (ATR) will be collected.



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Website: www.nandhaengg.org E-Mail: info@nandhaengg.org

Dr. N.Rengarajan, B.Sc., B.Tech. M.E., Ph.D
PRINCIPAL

NEC/Cir/2019-20/AAC017
Time : 03.00 PM

Date: 10.03.2020

CIRCULAR

Classification	ROUTINE	IMMEDIATE
Academic	Originator : PRINCIPAL	Circulated to Deans and HODs

Sub: 2019-2020 Academic Audit (Odd Semester) Report – Reg.

With reference to the circular NEC/Cir/2019-20/AAC016, a team of faculty members with external members conducted auditing on 14.02.2020 & 15.02.2020 for the academic year 2019-2020 (Odd Semester). The discrepancies observed during the audit are list below and the observations of external members are enclosed herewith.

S. No.	Documents Audited	Details of Courses Audited	Nature of Discrepancy
1	Course Coordinator Meeting Minutes	IV Meech - Project Phase – I Faculty: Mr. M. A. Omprakas Mr. M. Mohammed Ajmal Mr. B. Velliyangiri	Only Course Coordinator Meetings Circular available. Minutes of meeting not available.
2	Log Book	III Agri – Irrigation and Drainage Engineering Faculty: Mr. R. Jeya Prakash	Time Table miss match. Attendance entry for long absent is not mentioned.
3	Course File	II Chem – Chemical Analysis Lab Faculty: Mr. S. Pandiarajan	Course File not submitted
4	Course File (Course End Survey)	III ECE – Database Systems Concepts Faculty: Ms. Dhivya II Civil – Fourier Series and Partial Differential Equations Faculty: Mrs. J. Amutha Praba	No Course End Survey
5	Course File (Document incomplete)	I ECE – Python Programming Faculty: Mr. Yuvaraj	Document such as log book, lesson plan, name list, continuous assessment mark statement and attainment are not filed in course file for ECE-A.
6	Course File (Lecture Notes/PPT)	III Meech – Micro Electro Mechanical Systems Faculty: Mr. A. Karthy Mr. K.K. Elango	Lecture Notes and PPT are not filed
7	Question Paper and Key	II BME – Engineering Mechanics for Bio-Medical Engineers Faculty: Mr. M. Sampath Kumar III Agri – Irrigation and Drainage Engineering Faculty: Mr. R. Jeya Prakash	Not Mentioned in the question HoT type or not RECAT answer key not filed.

Figure B 7.2k Summarized External Academic Audit Report



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Website: www.nandhaengg.org

Dr. N.Rengarajan, B.Sc., B.Tech. M.E., Ph.D

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8	Adherence to Bloom's Taxonomy	III Chemical – Chemical Reaction Engineering Faculty: Dr. A. Murugesan III Chemical – Chemical Equipment Design-I Faculty: Ms. T. Poornima III Chemical – Chemical Process Industries Faculty: Mr. K. Rajasekaran	Not in Adherence to Bloom's Taxonomy
9	Booklet	II ME(ST) – Design of Substructures Faculty: Mrs. S. Tharanya	Name of faculty and signature are not written on answer booklets.
10	Review of Answer Scripts	III Civil – Railways, Airports, Harbour Engineering Faculty: Mr. K. L. Ravisankar III Civil – Housing, Planning and Management Faculty: Mr. T. Vinothkumar <input checked="" type="checkbox"/> IV EEE – PLC and Automation Faculty: Mr. T. Jaya Kumar <input checked="" type="checkbox"/> IV EEE – Electric Drives and Control Faculty: Dr. G. Ramani <input checked="" type="checkbox"/> IV EEE – Renewable Energy Technology Faculty: Mrs. C. Pratheeba I Chemical – Problem Solving and Python Programming Faculty: Mr. V. Manimaran III Chemical – Petroleum Refining Engineering Faculty: Mr. Sakthisaravanan III Chemical – Chemical Process Industries Faculty: Mr. K. Rajasekaran	Comments not written in answer booklet. <i>Shown the corrected copy for [unclear]</i> <i>Shown the corrected file [unclear]</i> <i>File shown on 12/2/24</i>
11	Attainment	II Civil – Fourier Series and Partial Differential Equations Faculty: Mrs. J. Amutha Praba	End Semester Attainment not found
12	PO, PSO, CO	<input checked="" type="checkbox"/> IV EEE – PLC and Automation Faculty: Mr. T. Jaya Kumar <input checked="" type="checkbox"/> IV EEE – Electric Drives and Control Faculty: Dr. G. Ramani <input checked="" type="checkbox"/> IV EEE – Renewable Energy Technology Faculty: Mrs. C. Pratheeba	Attainment of PO, PSO not found. Mapping of CO, PO and PSO – Average Values are incorrect Mapping of CO, PO and PSO – Average Values are incorrect

Figure B 7.21 Summarized External Academic Audit Report



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Dr. N.Rengarajan, B.Sc., B.Tech. M.E., Ph.D
PRINCIPAL

13	Statement of Continuous Assessment (CA) marks	II Civil – Fourier Series and Partial Differential Equations Faculty: Mrs. J. Amutha Praba	Mark statement not found.
14	CAT Mark Statement	IV Civil – Municipal Solid Waste Management Faculty: Mr. M. Yeswanth	Booklet is available for the student 16CEL03, but in CAT-3 mark statement it is specified as Absent.
15	Feedback	✓ IV EEE – PLC and Automation Faculty: Mr. T. Jaya Kumar ✓ IV EEE – Electric Drives and Control Faculty: Dr. G. Ramani	Individual feedback form not filed. <i>filled form shown</i> <i>filled form shown 11/2/20</i>
16	Experiment Mark Split up statement	III IT – Computer Graphics and Multimedia Lab Faculty: Ms. P. Dhivya Ms. G. Suganya III IT – Internet & Web Programming Lab Faculty: M. N. Shrigowtham II Chemical – Fluid Mechanics Lab Faculty: Mr. K. Rajasekaran	Experiment-wise Split up marks not filed.
17	Lesson Plan / Cycle of Experiment	I Chemical – Problem Solving and Python Programming Faculty: Mr. V. Manimaran II Chemical – Fluid Mechanics Lab Faculty: Mr. K. Rajasekaran	Cycle of Experiments not filed.
18	One Credit Course	IV Mech – Geometric Dimensioning & Tolerancy Faculty: Mr. Chandramohan V. III Mech – Statistical Process Control Faculty: Mr. Chandramohan V. II Civil – Preparation of Building Plan Faculty: R. Pradheepa III Civil – Elevation Rendering and Walk through using Architectural Software Faculty: R. Pradheepa	File has not maintained properly. Contents are not arranged properly. <i>shown not</i> <i>shown</i> Attendance and Name list are not enclosed.
19	Repeat/Redo	IV Mech – Subtractive Manufacturing Processes Laboratory Faculty: K. Ganesan	File not shown

Hence, Heads of the departments are requested to correct the discrepancies and submit the action taken report on or before 16.03.2020.

[Signature]
PRINCIPAL

Figure B 7.2m Summarized External Academic Audit Report



NANDHA ENGINEERING COLLEGE, (Autonomous)

ERODE-638 052

Academic Audit Report 2019-2020 (Odd Semester) (14.02.2020)

Observations:

1. Audit conducted for BME, Chemical, Civil, ECE, EEE and EIE.
2. Sample Course files of each year (I, II, III, IV) for all the programmes selected for auditing.
3. Course files are well prepared and maintained as per the course index format.
4. Lesson Plan and question papers are well prepared.
5. Document retrieval is good.
6. Sample Lab course files are also verified.
7. Lesson Plan may have common format and it may have pre-approval from HoD.
8. Action taken report for slow learners may be added in the course index format and maintained.
9. Better understanding of Blooms levels for question paper is required (AICTE Examination Reforms may be referred).
10. Time Table may have common format (Some time table appear without college logo, etc..)
11. For assessment of laboratory courses Rubrics may be followed (AICTE Examination Reforms may be referred).
12. Batch split-up for cyclic experiments and course coordinator meeting minutes may be included in lab course file.
13. More concentration is required on CO and PO mapping.
14. Minimal errors in CO, PO and PSO attainment to be corrected.
15. In course file, repeated data may be consolidated into single document and paper usage may be minimized.


Dr. S. J. Suji Prasad

Associate Professor-EIE

Kongu Engineering College, Erode

Figure B 7.2n Observations by External Academic Auditor1

OBSERVATIONS DURING EXTERNAL AUDIT ON 15.02.2020

Name of the Auditor: Dr T Ramesh Kumar, ASP/MECH, BIT

1. Common subjects like English, physics, project work should have same POs & COs mapping (if the course content is same)
2. The following are observed in question papers:
 - a. Use of Bloom's Taxonomy (BT) level need to be improved
 - b. BT Level percentage is need to incorporated
 - c. Either or question should have same BT level
3. The following are observed in project:
 - a. Project assessment need to split into two categories namely Group (like project report, project work plan, methodology etc..) and individual (Presentation, role clarity and viva) assessments.
 - b. PSOs and COs mapping should be specific to each project
 - c. Rubrics to be prepared
4. POs indicated as a to I need to be changed as I-12 as per revised NBA format. PSOs can also be included in the same table.
5. In all laboratory courses rubrics need to be prepared and the mark should be allotted as per rubrics only
6. Identified slow learners / weak students should be trained in the respective COs
7. Feedback of course end survey need to addressed in future

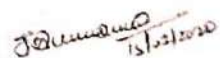

Dr. T. Ramesh Kumar

Figure B 7.2o Observations by External Academic Auditor2



NANDHA ENGINEERING COLLEGE, ERODE-52

(Autonomous)

DEPARTMENT OF MECHANICAL ENGINEERING

Action taken Report for academic audit Report for circular NEC/Cir/2019-20/AAC017 dated on 10.03.2020

S. No	Documents audited	Details of course Audited	Faculty Name	Nature of Discrepancy	Action Taken
1	Course Coordinator Meeting Minutes	IV Mech - Project Phase - I	M. A. Omprakas Mr. M. Mohammed Ajmal Mr. B. Velliyangiri	Only course coordinator meetings circular available. Minutes of Meeting not available	Advised to maintain the Minutes for Course Coordinator meetings in the file properly.
2.	Course File	III Mech - Micro Electro Mechanical Systems	Mr. A. Karthy Mr. K. Elango	Lecture Notes and PPT are not filed	Softcopies of the notes and PPT are available. Insisted to keep the hard copies of notes and PPT in the file.
3	Question Paper and Key	II BME - Engineering Mechanics for Bio- Medical Engineers	Mr. M. Sampath Kumar	Not Mentioned in the question HoT type or not	Advised to indicate the HOT question level in the question paper properly
4	One Credit Course	IV Mech - Geometric Dimensioning & Tolerancing III Mech - Statistical Process Control	Mr. Chandramohan V.	File has not maintained. Contents are not arranged properly.	Advised to arrange, maintain and update the file regularly
5	Repeat/Redo	IV Mech - Subtractive Manufacturing Processes Laboratory	K. Ganesan	File not shown	File had been checked and audited later. Faculty members insisted to submit the file on time.

General:

1. All lab handling faculty members are asked to follow Rubrics for assessment of laboratory courses
2. All lab handling faculty members are asked to implement batch split-up for cyclic experiments and course coordinator meeting minutes may be included in lab course file.
3. Faculty members are asked concentrate more on CO and PO mapping.
4. Faculty members are advised to avoid the repeated data into single document and paper usage may be minimized in course file.
5. Project Coordinators are advised to follow the two categories namely Group (like project report, project work plan, methodology etc.) and individual (Presentation, role clarity and viva) assessments in forth coming assessments.
6. All lab handling faculty members are asked to follow rubrics in their lab and the mark should be allotted as per rubrics only
7. Faculty members are asked to identified slow learners / weak students and they should be trained in the respective COs


 N. K. M. S.
 HoD-Mech

Figure B 7.2p Action Taken Report on Academic Audit



Department Monthly presentation:

As a part of academic audit Department monthly progress is presented by the Head of Departments. The presentation contains students’ results, participations, achievement, faculty attended seminar, conferences, paper publications, Industrial trainings etc.



Nandha Engineering College
(Autonomous)

MONTHLY REVIEW
DEPARTMENT OF MECHANICAL ENGINEERING

DATE:17.06.2022

PRESENTED BY: DR.M.EASWARAMOORTHY

STUDENTS PERFORMANCE

Success rate without backlogs in any semester/year of study

Batch	Students Strength	Number of students who have successfully graduated without backlogs in any semester/year of study			
		I Year	II Year	III Year	IV Year
2021-25	58				
2020-24	46+76	27	27+72		
2019-23	127(87+40)	42	31+24	30+23	
2018-22	116(67+49)	36	33+27	30+26	30+26
2017-21	183(148+35)	59	54+21	52+18	52+18
2016-20	175(147+28)	70	59+15	55+15	55+15
2015-19	199 (164+35)	63	49+14	43+10	42+10

4

STUDENTS PERFORMANCE

Success Rate - Number of students who have successfully graduated in stipulated period of study

Batch	Students Strength	Number of students who have successfully graduated in stipulated period of study [Total of with Backlog + without Backlog]			
		I Year	II Year	III Year	IV Year
2021-25	58				
2020-24	46+76	41	43+72		
2019-23	127(87+40)	45	84+40	87+37	
2018-22	116(67+49)	38	35+28	65+48	65+49
2017-21	183(148+35)	66	74+22	79+23	142+40
2016-20	175(147+28)		82+16	98+20	104+23
2015-19	199 (164+35)			80+18	130+29

5

CAREER GUIDANCE, TRAINING, PLACEMENT

COUNSELLING FOR GATE, GRE, GMAT / PRE-PLACEMENT TRAINING / PLACEMENT PROCESS

S. No	Activity	Date	Resource Person	Target Audience	Outcome
1.	Webinar on Study Abroad	14.08.2021	Mr. S. Prasanna Krishna, Founder-Career Zone Consulting Pvt Ltd	III,IV (95)	Students gained knowledge in opportunities abroad
2.	Verbal Communication	28.06.2021 - 02.07.2021	Mr Kathirvel, Department of English, Nandha Engineering College	IV year placement willing students (67)	Students gained knowledge on verbal communication
3.	Technical Programming	19.07.2021 - 29.07.2021	Mr.Manimaran, Department of CSE, Nandha Engineering College	IV year placement willing students (67)	Students gained knowledge on C programming

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Figure B.7.2o Sample monthly department presentation



Department Appraisal - Annual Presentation:

The next step of academic audit includes the Annual presentation where Department wise results, co-curricular achievements, placements, higher studies, publications etc. are reported for each academic year. The sample of annual presentation has been shown below.

NANDHA ENGINEERING COLLEGE (Autonomous), ERODE -638052															
DEPARTMENT APPRAISAL - ANNUAL PRESENTATION - June 2018 to May 2019															
S.No	Item	Target	Target/ Faculty	ECE	CSE	EEE	EIE	IT	CIVIL	MECH	AGRI	CHEMICAL	MCA	MBA	Consolidated
			141	25	19	14	6	11	13	28	3	3	7	9	141
No. of Students in each Department			1629	407	421	243	74	197	260	456	105	81	43	73	1629
1.	Current semester result (ODD & Even) (No. of Students Pass / No. of Students Appeared)	I Year (I sem)	50%	63/81=78%	88/110=79%	42/55=76%	-	42/50=84%	14/20=70%	47/67=70%	33/43=77%	19/29=66%	-	18/28=64%	184/201=77%
		I Year (II Sem)	55%	57/80=71%	85/113=75%	49/55=89%	-	41/50=82%	9/17=53%	40/67=60%	33/43=77%	19/29=66%	-	21/27=78%	365/490=75%
		II yr (III sem)	60%	74/107=69%	68/119=57%	74/92=80%	20/23=87%	32/54=59%	16/35=46%	118/134=88%	43/60=72%	37/58=64%	33/44=75%	42/45=93%	503/755=67%
		II yr (IV sem)	65%	79/104=76%	73/117=62%	69/89=78%	17/23=74%	43/54=80%	12/35=34%	114/134=85%	45/60=75%	41/53=77%	39/44=89%	44/44=100%	502/743=68%
		III yr (V sem)	80%	79/92=86%	70/90=78%	52/60=87%	15/20=75%	37/45=82%	44/56=79%	124/177=70%	-	-	32/35=91%	-	418/541=77%
		III yr (VI sem)	85%	76/94=81%	69/89=78%	41/58=71%	17/20=85%	44/45=98%	18/35=51%	136/178=76%	-	-	35/35=100%	-	421/540=78%
		IV yr (VII sem)	90%	111/123=90%	86/94=91%	100/114=88%	16/21=84%	39/47=83%	106/124=86%	168/199=84%	-	-	-	-	636/732=87%
		Passed out (VIII sem)	95%	121/123=98%	94/94=100%	111/114=97%	30/31=97%	45/47=96%	130/134=97%	190/199=96%	-	-	-	-	712/732=97%
2.	% of All clear students (No. of Student All clear / No. of Student Appeared)	I yr (I to I sem)	-	63/81=78%	88/110=79%	42/55=76%	-	42/50=84%	14/20=70%	47/67=70%	33/43=77%	19/29=66%	-	18/28=64%	384/501=77%
		I yr (I to II sem)	50%	57/80=71%	84/113=74%	45/55=82%	-	41/50=82%	9/17=53%	38/67=57%	33/43=77%	18/29=64%	-	21/27=78%	336/490=73%
		II yr (I to III sem)	-	67/107=63%	68/119=58%	66/92=72%	13/23=56%	25/54=46%	12/35=35%	96/134=72%	40/60=67%	33/58=57%	33/44=75%	40/45=89%	437/755=58%
		II yr (I to IV sem)	60%	70/104=67%	67/117=57%	61/89=69%	15/23=65%	33/54=61%	11/35=31%	96/134=72%	43/60=72%	35/58=60%	39/44=89%	43/44=98%	441/743=60%
		III yr (I to V sem)	-	73/92=78%	55/90=61%	46/60=77%	13/20=65%	34/45=76%	16/35=46%	104/177=59%	-	-	31/35=89%	-	359/541=66%
		III yr (I to VI sem)	80%	74/94=79%	61/89=69%	38/58=66%	15/20=75%	41/45=91%	13/35=37%	118/178=66%	-	-	33/35=94%	-	380/540=70%
		IV yr (I to VII sem)	85%	102/123=83%	77/94=82%	83/114=73%	23/31=74%	29/47=62%	100/124=81%	133/199=67%	-	-	-	-	546/732=75%
Passed out (I to VIII sem)	90%	107/123=87%	84/94=89%	95/114=83%	27/31=87%	41/47=87%	106/124=86%	156/199=78%	-	-	-	-	616/732=84%		
3.	Placement by Department	Absent 25% of the total students showed by placed by department faculty (Min salary should be Rs.15,000)	120	15/24	1/12	7/11	4/7	2/5	51/25	102/82	NA	NA	3/3	14/30	209/120
4.	% of Placement	Student placed by P&T	-	51/95	40/49	33/44	5/5	14/18	-	17/23	NA	NA	12/15	-	182/250
5.	No. of students clearing competitive exams (GATE, TNPS & State)	1/intake/year/department (Applied) (2017-18)	26	4	1	3	1	-	1	1	NA	NA	-	-	11/26
		1/intake/year/department (Cleared)	18	4 2-TNPSC Group IV 1-Civil Services Exam (India Railways) 1-TANGHERCO	1 TNPSC Group IV	3 TANGHERCO 1-Fineries	-	-	1 (TNPSC, Group IV)	-	NA	NA	-	-	9/18
6.	Higher Studies	IITs & NITs (1 intake)	14	1 PSG	-	1 PSG	-	-	2 NEXST - Anurath Pradisi, VII - Chennai	1 PSG	-	-	NA	-	5/14
		Abroad (1 intake)	14	1-DEMONTFORT University, London	-	-	-	-	2 Rutherford Nassau University London, Northumbria University, UK	-	-	-	NA	-	3/14
7.	Patent / Copy right by Faculty	Applied	-	8(CDR) 3 (Patent) 1 (Trademark)	-	-	-	1	-	1	-	-	-	-	12
		Receipt	-	3-CR 1-Patent	-	-	-	-	-	-	-	-	-	-	3+1

Figure B.7.2p Sample department appraisal-annual presentation



7.3 Improvement in Placement, Higher Studies and Entrepreneurship (10)

Self Assessment (10)

Assessment is based on improvement in: Placement: number, quality placement, core industry, pay packages etc.

Higher studies: admissions in premier institutions

Entrepreneurs:

Students placement ratio, placement details, number of companies visited, type of company visited and salary package are described in the below listed tables and figures

Table B. 7.3.a Placement Ratio

Year	Number of students appeared in final examinations	Number of students graduated out of students appeared in final examination	Number of students placed + pursuing higher studies+ opted Entrepreneurship	Placement Ratio
CAYm1 (2020-2021)	183	180	180	78.14
CAYm2 (2019-2020)	175	127	127	70.28
CAYm3 (2018-2019)	199	159	159	69.84

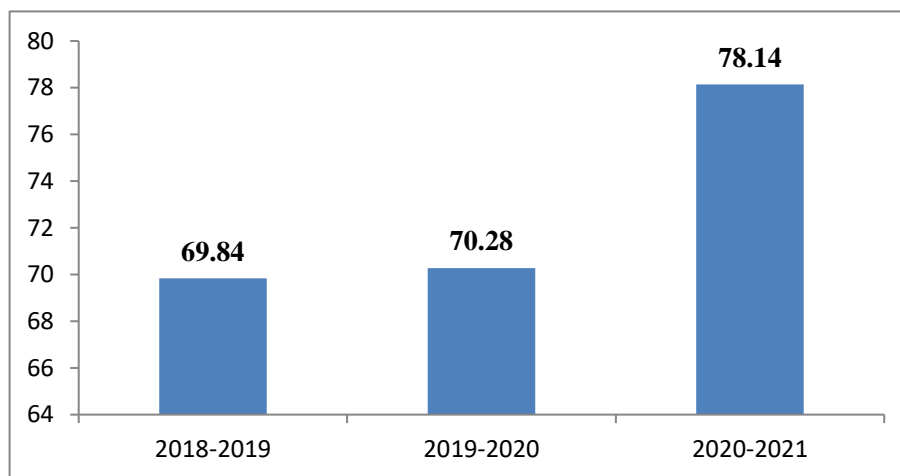


Figure B.7.3a Placement Ratio



Table B. 7.3.b Number and Type of Companies visited

Year	Total Number of Company Visited	Number of IT Based Company	Number of Core Based Company
CAYm1 (2020-2021)	41	5	36
CAYm2 (2019-2020)	20	5	15
CAYm3 (2018-2019)	17	8	9

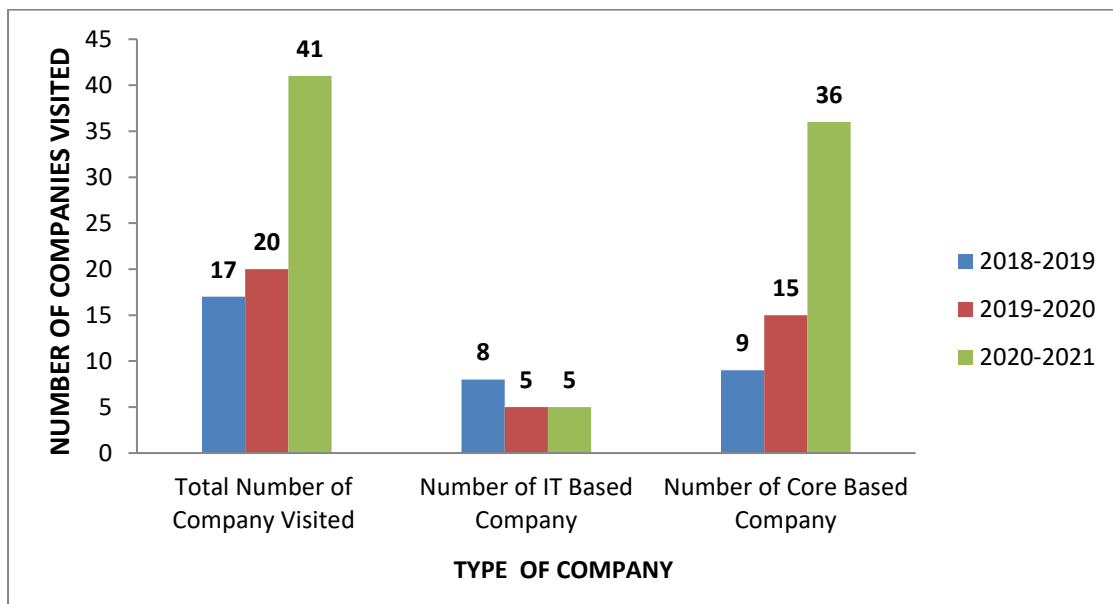


Figure B.7.3.b Number and Type of Companies visited



Table B. 7.3.c Placement Details

Year	Total Strength	No. of Students Appeared for Final Examinations	No. of Students Placed	No. of Students Placed in IT Based Companies	No. of Students Placed Core Based Companies
CAYm1 (2020-2021)	183	183	154	09	134
CAYm2 (2019-2020)	175	175	124	10	114
CAYm3 (2018-2019)	199	199	139	12	127

Table B.7.3.d Performance in Competitive Examinations and Higher Study Details

Competitive Examinations	No. of Students Pursuing Higher Studies	GATE		IELTS/ TOEFL		GRE		TANCET		TNPSC		No. of students admitted in Premier Institutions (MS, MBA, M.E, M.Tech)
		Appeared	Cleared	Appeared	Cleared	Appeared	Cleared	Appeared	Cleared	Appeared	Cleared	
CAYm1 (2020-2021)	08	-	-	-	-	-	-	-	-	-	-	08
CAYm2 (2019-2020)	02	-	-	-	-	-	-	-	-	-	-	02
CAYm3 (2018-2019)	06	-	-	-	-	-	-	1	1	-	-	06



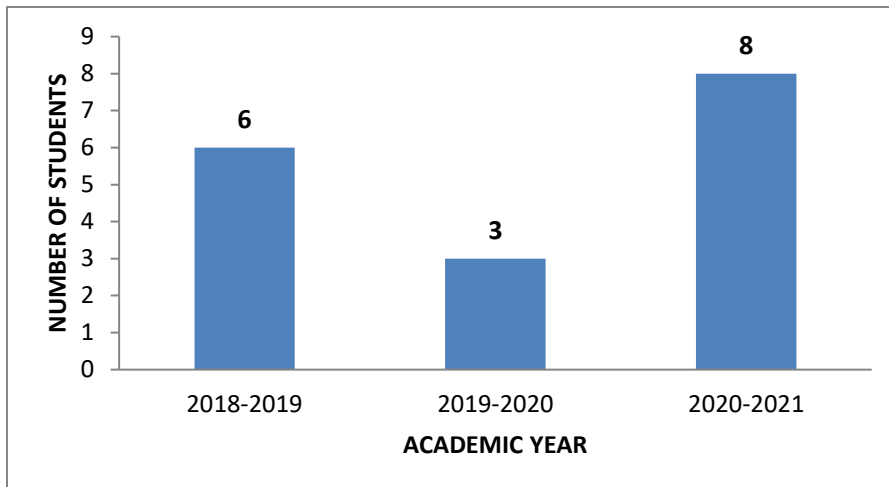


Figure B. 7.3.d. Higher Studies Details

Table B.7.3.e Entrepreneur Details

Year	Entrepreneurs (No. of Students)
CAYm1 (2020 -21)	1
CAYm2 (2019 -20)	1
CAYm3 (2018 -19)	1

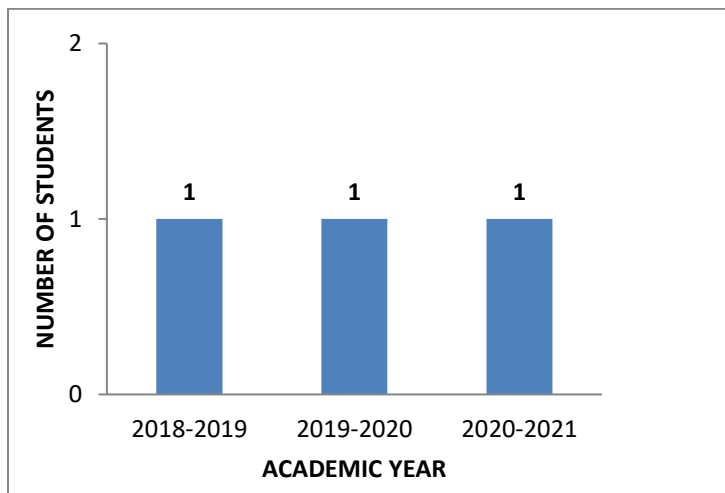


Figure B. 7.3.e. Entrepreneur Details



7.4 Improvement in the quality of students admitted to the program (20)
Self Assessment (15)

Assessment is based on improvement in terms of ranks/score in qualifying state level/national level entrances tests, percentage marks in Physics, Chemistry and Mathematics in 12th Standard and percentage marks of the lateral entry students.

Table B.7.4a Improvement in the quality of students admitted to the program

Item		CAY (2021-2022)	CAYm1 (2020-2021)	CAY m2 (2019-2020)	CAYm3 (2018-2019)
National Level Entrance	No. of Students Admitted	NIL	NIL	NIL	NIL
	Opening Cut-off	NIL	NIL	NIL	NIL
State Level Entrance	No. of Students Admitted	97	46	90	70
	Opening Cut-off	92.67	81.5	88	90.67
Lateral Entry	No. of Students Admitted	76	41	56	41
	Opening Cut-off	95.89	88.2	89	82.25
Average CBSE/Any other board result of admitted students (Physics, Chemistry & Mathematics)		78.02	52.80	61.34	60.89



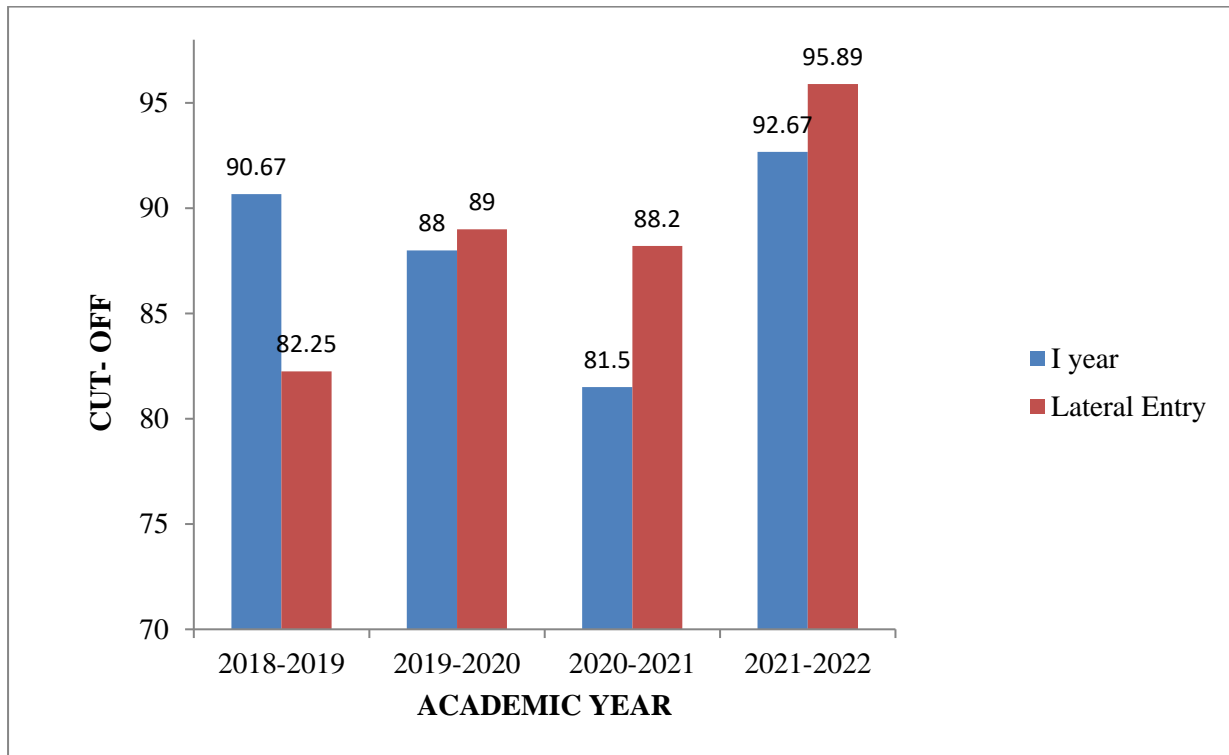


Figure B.7.4.a Students Admission Details (Opening Score/Rank)



CRITERION 8



CRITERION 8	First Year Academics	50
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8.1 First Year Student-Faculty Ratio (FYSFR) (5)

Data for first year courses to calculate the FYSFR:

Table B.8.1. First Year Student-Faculty Ratio

Year	Number of students (approved intake strength)	Number of faculty members (considering fractional load)	FYSFR	*Assessment = (5 × 20)/ FYSFR (Limited to Max. 5)
CAY (2021-2022)	780	44.5	17.52	5.70
CAYm1 (2020-2021)	720	48	15	6.6
CAYm2 (2019-2020)	780	43	18	5.56
Average	760	45.1	16.84	5.95

*Note: If FYSFR is greater than 25, then assessment equal to zero.

8.2 Qualification of Faculty Teaching First Year Common Courses (5)

Assessment of qualification = $(5x + 3y)/RF$, x = Number of Regular Faculty with Ph.D., y = Number of Regular Faculty with Post-graduate qualification
 RF = Number of faculty members required as per SFR of 20:1, Faculty definition as defined in 5.1

Table B.8.2 Qualification of Faculty Teaching First Year

Year	x	Y	RF	Assessment of faculty qualification (5x + 3y)/RF
CAY (2021-2022)	9	50	39	5.0
CAYm1 (2020-2021)	7	41	36	4.38
CAYm2 (2019-2020)	7	39	39	3.89
Average Assessment				4.42

8.3 First Year Academic Performance (10)

Academic Performance = ((Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks in First Year of all successful students/10)) x (number of successful students/number of students appeared in the examination)

Successful students are those who are permitted to proceed to the second year.

Program: Mechanical Engineering

Table B.8.3a First Year Academic Performance

Academic Performance	CAY 2021-2022	CAYm1 2020-2021	CAYm2 2019-2020
Mean of the grade point of marks of all successful students	7.36	8.44	7.61
Total Number of successful students	55	46	87
Total Number of students appeared in the examinations	55	46	87
API [X*(Y/Z)	7.36	8.44	7.61
Average API	7.80		

Table B.8.3b Grade point average for the Academic Year 2021-2022

S.No	Department	No of students appeared in exams	Number of Successful students	Total grade point average of all successful students
1	Agricultural Engineering	44	44	7.51
2	Biomedical Engineering	33	33	7.48
3	Computer Science and Engineering	119	119	7.78
4	Chemical Engineering	30	30	6.98
5	Civil Engineering	16	16	7.25
6	Electronics and Communication Engineering	99	99	7.75
7	Electrical and Electronics Engineering	47	47	7.20
8	Information Technology	57	57	7.73
9	Mechanical Engineering	55	55	7.36
Total		500	500	
Mean of the grade point of marks of all successful students				7.44
Academic Performance CAY				7.44

Academic Year 2021-2022

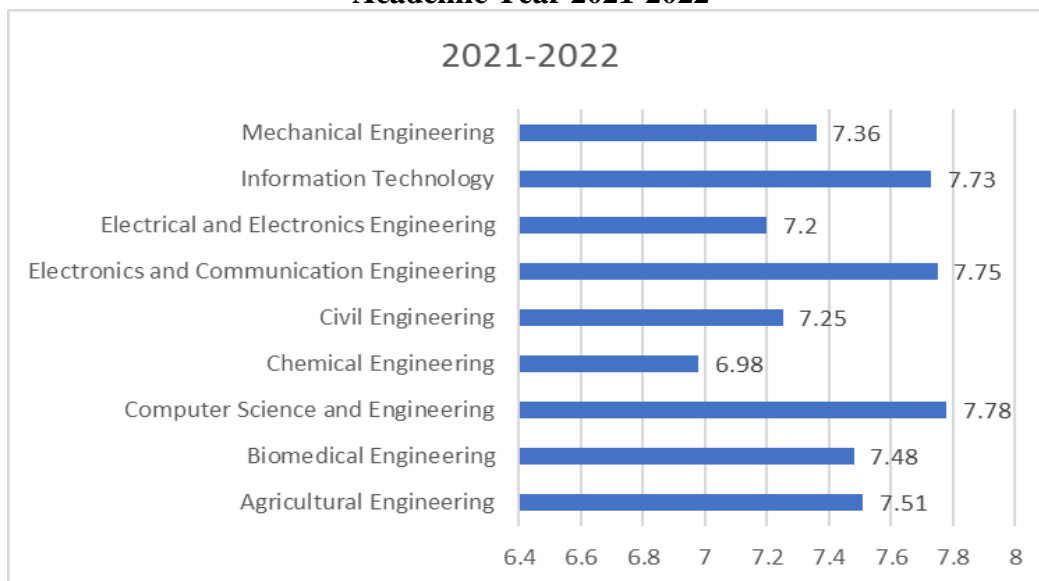


Table B.8.3c Grade point average for the Academic Year 2020-2021

S.No	Department	No of students appeared in exams	Number of Successful students	Total grade point average of all successful students
1	Agricultural Engineering	55	55	8.27
2	Biomedical Engineering	52	52	8.99
3	Computer Science and Engineering	120	120	8.87
4	Chemical Engineering	29	29	8.72
5	Civil Engineering	19	19	8.44
6	Electronics and Communication Engineering	95	95	8.68
7	Electrical and Electronics Engineering	47	47	8.49
8	Information Technology	54	54	9.14
9	Mechanical Engineering	46	46	8.44
Total		517	517	78.04
Mean of the grade point of marks of all successful students				8.671
Academic Performance CAYm1				8.671

Academic Year 2020-2021

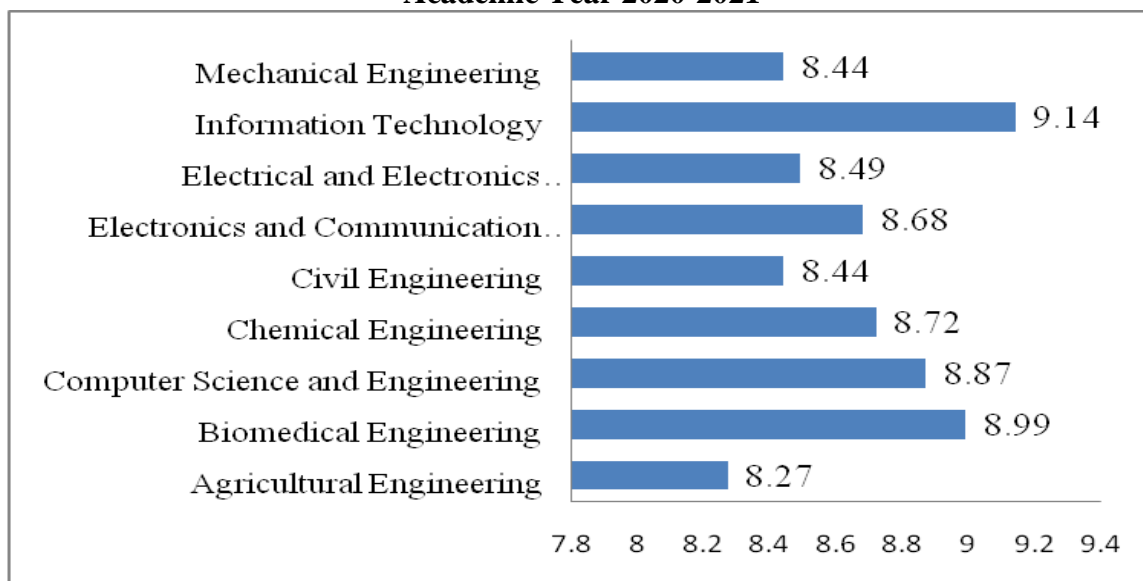
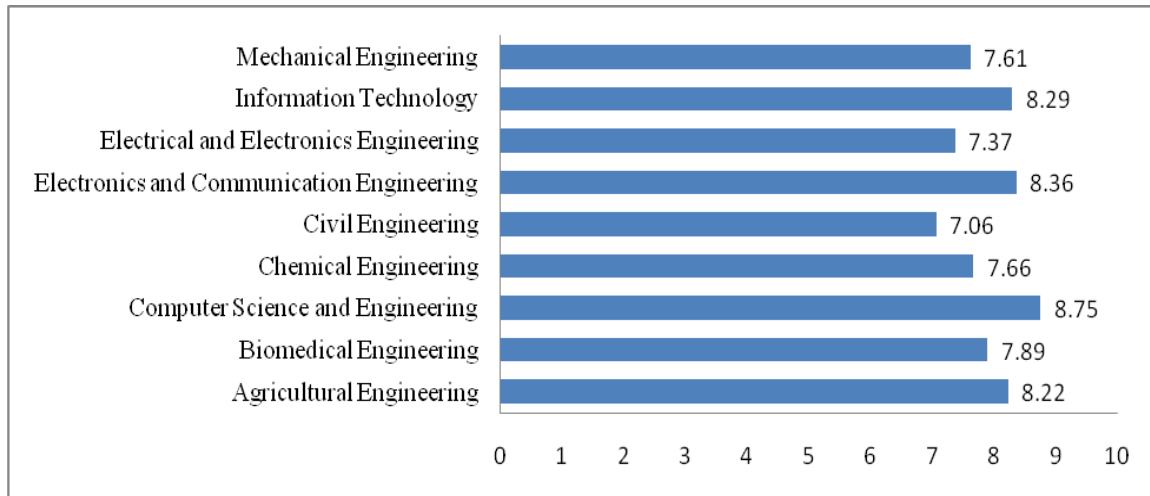


Table B.8.3d Grade point average for the Academic Year 2019-2020

S.No.	Department	No. of students appeared in exams	Number of Successful students	Total grade point average of all successful students
1	Agricultural Engineering	49	49	8.22
2	Biomedical Engineering	40	40	7.89
3	Computer Science and Engineering	114	114	8.75
4	Chemical Engineering	36	36	7.66
5	Civil Engineering	30	30	7.06
6	Electronics and Communication Engineering	100	100	8.36
7	Electrical and Electronics Engineering	64	64	7.37
8	Information Technology	58	58	8.29
9	Mechanical Engineering	87	87	7.61
Total		578	578	71.21
Mean of the grade point of marks of all successful students				7.91
Academic Performance CAYm2				7.91

Academic Year 2019-2020



8.4 Attainment of Course Outcomes of first year courses (10)

8.4 .1 Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done (5)

(Examples of data collection processes may include, but are not limited to, specific exam questions, laboratory tests, internally developed assessment exams, oral exams assignments, presentations, tutorial sheets etc.)

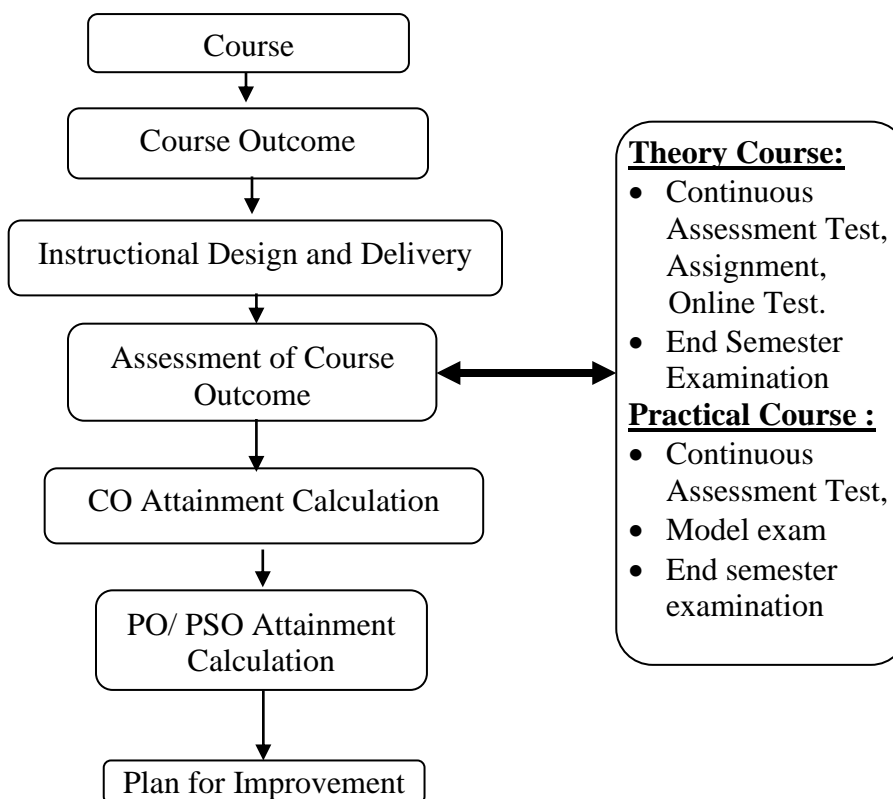
The assessment process used to gather data and evaluate the course outcomes are given below.

Theory course:

- Continuous Assessment Tests (CA test)
- Assignments
- Online Tests
- End Semester Examinations

Laboratory course:

- Continuous Assessment Tests (CA test)
- Model exam
- End semester examination.

CO, PO & PSO ATTAINMENT CALCULATION PROCESS:**Table B 8.4.1a Procedure for Assessment of Courses**

S.No.	Category of Course	CA Marks	End Semester Exam (ES) Marks	Total Marks
1.	Theory course	40	60	100
2.	Embedded course	40	60	100
3.	Laboratory courses / Project work	50	50	100

The following table B.8.4.1b shows the Continuous Assessment and End semester assessment processes for Theory courses and Practical courses in R17.

Table B 8.4.1b Continuous Assessment Process for Theory Courses in R17

S. No	Components for CA Marks	Syllabus Coverage for the test	Duration of the test in Hrs.	Marks (max.)
1.	Continuous Assessment I	2.5 units	1.30	30
2.	Continuous Assessment II / Project Based Learning	2.5 - 5 units	1.30	
3.	Assignment/tutorials/quiz – 2 nos.	2.5 units each	-	5
4.	Online Test – 2 nos.	2.5 units each	-	5
				40

Table B 8.4.1c Continuous Assessment for Embedded Courses in R17

S.No.	Components for CAM	Syllabus Coverage for the test	Duration of the test in Hrs.	Marks (max.)
1	Continuous Assessment I	1.5 units	1.30	15 (Best 2)
2	Continuous Assessment II / Project Based Learning	1.5 – 3 units	1.30	
3	Continuous Assessment III	4-5 units	1.30	
4	Average of all Experiment	-	-	5
5	End Semester Exam for Lab			20
TOTAL				40

Table B 8.4.1d Continuous Assessment Process for Laboratory Courses in R17

S. No.	Components for Internal Mark	Marks (max.)
1	Record Mark(Maximum 100)	((Record Mark + Model Mark (I + II)) / 6
2	Model Exam I (Out of 50)	
3	Model Exam II (Out of 50)	
TOTAL		50

8.4.2 Record the attainment of Course Outcomes of all first year courses (5)

Program shall have set attainment levels for all first year courses. (The attainment levels shall be set considering average performance levels in the institution level examination or any higher value set as target for the assessment years. Attainment level is to be measured in terms of student performance in internal assessments with respect the COs of a subject plus the performance in the institution level examination)

Student's performance in the continuous assessment tests and end semester examinations are measured as described in the section 8.4.1 and semester wise attainment levels are presented below.

SEMESTER I						
COURSE	Attainment Level					Remarks
	CAT	Assignment	Online	End Semester	Overall	
17EYA01 (Professional English - I)	2	3	-	2	2	Moderate
17MYB01 (Calculus and Solid Geometry)	2	3	2	2	2	Moderate
17PYB01 (Physics for Engineers)	2	3	2	3	3	Moderate
17CYB01 (Applied Chemistry)	2	3	2	3	3	Moderate
17MEC01 (Engineering Graphics)	2	3	2	2	2	Moderate
17ECC02 (Basic Electrical, Electronics and Instrumentation Engineering)	2	3	2	2	2	Moderate
17GYP01 (Physics and Chemistry Laboratory)	3	-	-	2	3	Substantial
17GYP02 (Engineering Practices Laboratory)	3	-	-	3	3	Substantial

SEMESTER II						
17EYA02 (Professional English - II)	2	3	-	2	2	Moderate
17MYB02 (Complex Analysis and Laplace Transform)	2	3	2	2	2	Moderate
17PYB03 (Materials Physics)	2	3	2	3	3	Substantial

17CYB03 (Environmental Science)	2	3	2	3	3	Substantial
17MEC02 (Engineering Mechanics)	2	3	2	2	2	Moderate
17CSC01 (Problem Solving and Python Programming)	2	3	1	2	2	Moderate
17MEP02 (Computer Aided Modeling and Drafting Laboratory)	2	-	-	1	2	Moderate
17CSP01 (Problem Solving and Python Programming Laboratory)	2	-	-	3	3	Substantial

8.5 Attainment of Program Outcomes from first year courses (20)

8.5.1 Indicate results of evaluation of each relevant PO and/or PSO if applicable (10)

The relevant program outcomes that are to be addressed at first year need to be identified by the institution. Program Outcome attainment levels shall be set for all relevant POs and/or PSOs through first year courses.

(Describe the assessment processes that demonstrate the degree to which the Program Outcomes and Program Specific Outcomes are attained through first year courses and document the attainment levels. Also include information on assessment processes used to gather the data upon which the evaluation of each Program Outcome is based indicating the frequency with which these processes are carried out)

Program Outcome attainment levels are set as 60% based on the performance of students at Institute level. The assessment process described in section 8.4.1 is used to evaluate the attainment levels of COs. The PO attainment is calculated based on the correlation between CO and PO defined in the articulation matrix and CO attainment. This process is carried out once in a semester and placed in the BoS.

Table B.8.5.1. PO/PSO Attainment: Mention first year courses

SEMESTER I																
Course	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
17EYA01 (Professional English - I)						1	1	1	2	3		3				
17MYB01 (Calculus and Solid Geometry)	2	3		2	1	1	1	1		1	1	1				
17PYB01 (Physics for Engineers)		1	2	1		1	1			1	2	1		1		
17CYB01 (Applied Chemistry)	2								2		2	2		1		1
17MEC01 (Engineering Graphics)	2		2	2	2				2		2	2	3	3	1	1
17ECC02 (Basic Electrical, Electronics and Instrumentation Engineering)	1	1	1			1										
17GYP01 (Physics and Chemistry Laboratory)	1	1		1		1	1			1	1			1		
17GYP02 (Engineering Practices Laboratory)	1	1	1	1	2		1	2				2	2	1	1	2
SEMESTER II																
17EYA02 (Professional English - II)	1		3	2	1	1	2	-	-	-	-	1	-	-	-	-
17MYB02 (Complex Analysis and Laplace Transform)	1	2	1	1	1	2	1	2	-	1	2	1	-	-	-	-
17PYB03 (Materials Physics)	2	1	1	-	-	1	-	-	1	-	-	-	-	1	-	-
17CYB03 (Environmental Science)	2	-	-	-	-	-	-	-	2	-	2	2	-	1	-	1
17MEC02 (Engineering Mechanics)	3	2	3	2	-	-	-	-	-	3	-	3	1	2	3	-
17CSC01 (Problem Solving and Python)	1	1	1	-	-	-	-	-	-	1	1	-	2	-	-	-

Programming)																
17MEP02 (Computer Aided Modeling and Drafting Laboratory)	1	1	-	1	-	1	-	-	1	-	1	1	1	1	1	-
17CSP01 (Problem Solving and Python Programming Laboratory)	3	2	2	-	1	-	-	-	2	1	2	-	3	-	-	-
Attainment out of 3	1.83	1.90	1.85	1.44	1.30	0.92	0.97	1.85	1.86	1.38	1.46	1.82	1.97	1.21	1.31	1.04
% of Attainment	61	63	62	48	43	31	32	62	62	46	49	61	66	40	44	34

8.5.2 Actions taken based on the results of evaluation of relevant POs and PSOs (10)

The attainment levels by direct (student performance) are to be presented through Program level Course-PO matrix as indicated). The department takes continuous efforts towards academic excellence of students through the attainment of POs and PSOs. It challenges itself to reach new heights in all aspects related to teaching and learning.

The following table shows the details of actions taken for improving the attainment of POs and PSOs during the academic year 2018-19.

PO	Target level	Attainment level	Observations
PO1: Engineering Knowledge:	Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.		
PO1:	60%	61%	Target Achieved
Action taken			
Action 1: Workshops/seminars were organized with experts from Industry/Academic.			
Action 2: Students have visited Industry to enhance their engineering knowledge.			
PO2: Problem Analysis:	Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.		
PO2:	60%	63%	Target Achieved
Action taken			
Action 1: Additional practices were given for problem solving which included as a part of tutorial sessions.			
Action 2: Students were involved in competitions/quiz to improve the logical thinking.			
PO3: Design/Development of Solutions:	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety and the cultural, societal and environmental considerations.		
PO3:	60%	62%	Target Achieved

Action taken			
Action 1: Interactive sessions were organized with professionals from industry in order to expose the industrial / societal problems and develop solution.			
Action 2: Students have used Centre for Innovation and Product Development (CIPD) as a platform to do projects to gain knowledge on design and product development.			
PO4: Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of the information to provide valid conclusions.			
PO4:	60%	48 %	Target not achieved
Action taken			
Action 1: Students were trained to understand the complex problems by giving Case studies as assignments.			
Action 2: Field visit have been arranged to the students at TNPL, Karur to expose the students to industrial problems.			
PO5: Modern Tool Usage: Create, select and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.			
PO5:	60%	43 %	Target not achieved
Action Taken			
Action 1: Students were given practice in design software such as AutoCAD, SolidWorks during the laboratory classes			
Action 2: Field visits/industrial visits were arranged to make the students to understand modern tools used in industries.			
PO6 : The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.			
PO6 :	60%	31%	Target not achieved
Action taken			
Action 1: Students have participated in project Expo during Innovation Day.			
Action 2: Students were involved in club activities such as NSS, YRC, FINE ARTS, ROAD SAFTY, SPORTS, TREE PLANTATION & TREKKING CLUBS.			
Action 3: Yoga practice classes for the students had been scheduled in the regular time table.			
PO7 : Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge and need for the sustainable development.			
PO7 :	60%	32%	Target not achieved
Action taken			
Action 1: Local visits were arranged to the students for understanding the industrial practices, environmental issues and solutions.			
Action 2: Students were asked to study the environment and submit assignments based on environment and sustainability.			

PO8 : Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
PO8 :	60%	62 %	Target not achieved
Action taken Action 1: Course on Personal values were offered to inculcate the ethical practices. Action 2: Assignments were given to students on the topics related to the ethics.			
PO9 : Individual and Team Work: Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary settings.			
PO 9 :	60%	62 %	Target achieved
Action taken Action 2: Students have worked as team members while organizing symposium, seminars, workshops, etc. Action 3: Project work was assigned to the students by forming groups.			
PO 10 : Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large such as being able to comprehend and write effective reports and design documentation and make effective presentations and give and receive clear instructions.			
PO 10 :	60%	46 %	Target not achieved
Action taken Action 1: Encouraged to participate in the seminar/ technical events organized by other institutions. Action 2: Intra department competition was organized and the presentations by the students helped them to improve their communication skills.			
PO 11: Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, manage projects and in multidisciplinary environments.			
PO 11 :	60%	49%	Target not achieved
Action taken Action 1: Few courses on Project management and Engineering Economics and cost analysis were offered to inculcate the concepts of Project management and Finance. Action 2: Students were encouraged to handle financial management part during various events organized through associations/ clubs/ college level functions activities.			
PO12 : Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.			
PO 12 :	60%	61%	Target achieved
Action taken Action 1: A separate cell named as higher education cell organizes events to make the students to know about the importance of perusing higher education and prepare for various competitive exams. Action 2: Interest on continuous learning was cultivated by organizing seminars/ lectures on emerging technologies.			

PSO	Target level	Attainment level	Observations
PSO1: Ability to design mechanical systems with required specifications using latest software packages.			
PSO1:	60%	66 %	Target achieved
Action Taken Action 1: Students were given training on design software in the laboratory course namely Computer Aided Modeling and Drafting. Action 2: Students were supported by CiPD to do projects.			
PSO2: Ability to identify sustainable materials and technologies for alternate engineered solutions.			
PSO2:	60%	40 %	Target not achieved
Action Taken Action 1: Students were exposed to concept of materials in a separate course on Materials physics and Materials and Engineering Technology. Action 2: Workshops were conducted with experts from Industry. Action 3: Assignments and seminar were given to know about materials.			
PSO3: Ability to apply the concepts and principles of manufacturing engineering to innovate and to create products and processes with sustainable manufacturing.			
PSO3:	60%	44%	Target not achieved
Action Taken Action 1: Seminars were organized by inviting industry experts as resource persons. Action 2: Students were involved in doing projects and display in the innovation day celebrated once in a year to understand the concept of innovation, design and manufacturing.			
PSO4: Ability to provide solution to challenges in the solar thermal systems.			
PSO4	60%	34%	Target not achieved
Action Taken Action 1: Students were encouraged to do online courses. Action 2: Industrial visits/ seminars were organized in the renewable energy area to the students.			

CRITERION 9

STUDENT SUPPORT SYSTEMS



CRITERION 9	STUDENT SUPPORT SYSTEMS	50
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9.1. Mentoring system to help at individual levels

(5)

Self-Assessment (5)

Type of mentoring: Professional guidance / career advancement / course work specific / laboratory specific / all-round development

Number of faculty mentors: Number of students per mentor: Frequency of meeting: (The institution may report the details of the mentoring system that has been developed for the students for various purposes and also state the efficacy of such system here)

- The Institution has a separate system for mentoring students in the name of Proctoring Scheme. It has two components namely Proctor and Proctee. Proctor refers to faculty member (mentor) who takes the responsibility of mentoring the students. Proctee refers to student (mentee). A proctor is allotted to every set of 20-25 students and he acts like an on-campus parent/mentor. Students of all departments are brought under this system from first year onwards. The structure of the proctoring scheme is presented below.

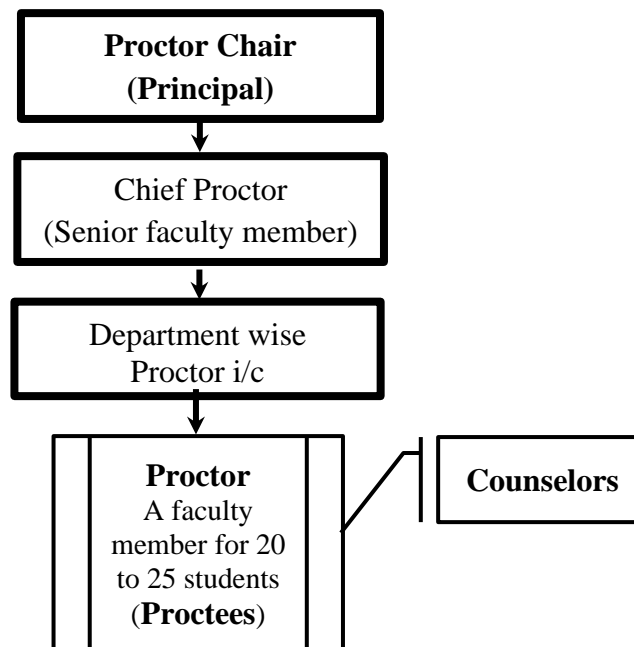
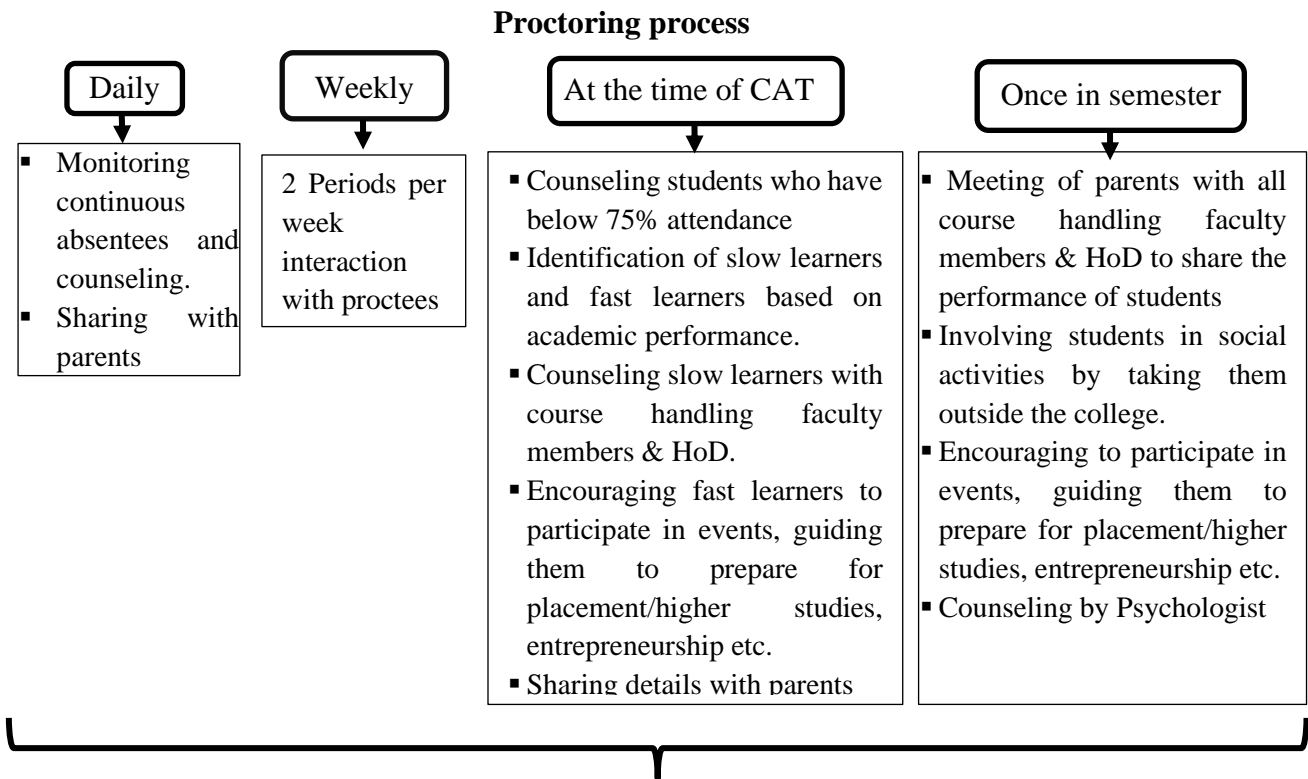


FIGURE B 9.1a Structure of Proctoring Scheme

- Proctor is responsible for counseling/mentoring the respective group of students. The proctor provides guidance on professional development, career advancement, co-curricular and extra-curricular activities, and also keeps follow up on academics.
- A monitoring register (student’s record) is used to enter the activities of Proctees (students) and monitor their progress. The academic progress and all their activities of Proctees are closely monitored and entered in the register.
- The student can easily approach the proctor in case of any academic/non-academic help. Any discrepancies such as disciplinary issues, health issues, sense of insecurity, lack of attendance etc are discussed and counseled with care.
- Proctees need to meet their proctor atleast once before every continuous assessment and two periods per week is allotted in the timetable for proctoring.
- Proctors submit the minutes of the meeting to the proctor office which consists of Principal and a senior faculty member as Chief Proctor. The Chief proctor is assigned to monitor the overall functioning of the Proctoring scheme.
- ‘Best Proctor Award’ is given to the proctors every year in the annual day celebrations as a token of appreciation.
- A team of counselors are also available at institution level to counsel the students. Yoga practices also provided to the students.



Proctoring continues till he/she completes the degree

FIGURE B 9.1.b Flowchart of Proctoring process



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9

TABLE B 9.1a Proctor (Mentor) Details

Academic year	Number of Proctors (Faculty members)	Number of students per mentor	Frequency of meeting
2020-21	172	20 -25	2 times (during CAT-1 &2 period)
2019 -20	157	20 -25	
2018-19	159	20 -25	
2017-18	162	20 -25	

Type of Mentoring: All-round Development

The all-round development student mentoring system focuses on the following four areas:

- Academic progress
- Co-curricular progress
- Extra-curricular progress
- Career settlement

i. Academic progress:

- All students are mentored by the respective Proctors as described in Fig. 9.1b above. This enables the Proctors to monitor the progress of each student.
- During this regular Proctoring, the students are mentored based on their performance and categorised into fast and slow learners. Students who have scored good marks with high CGPA are considered as fast learners. The following provisions are given in the curriculum for the fast learners.
 - ✓ Add-On Course
 - ✓ Credit for Online/ NPTEL courses
 - ✓ Credit for Internship
 - ✓ Credit for One credit courses

Further, students are mentored to participate in State and National level events. Fast learners are advised to help the slow learners whenever possible, which enables peer learning among the students.

- Students with arrears are considered as slow learners. The Students are engaged in the following activities.
 - ✓ Extra practice Classes
 - ✓ Video presentation and animations



✓ Extra Assignments

- College Toppers are awarded with ranks based on the academic performance.
- Best Outgoing Student Award is also presented to motivate the students.

Efficacy:

Through this effective mentoring system

- The performance of the students in the continuous assessment tests has improved and the students who perform better are motivated to do well in the upcoming tests.
- Slow learners have also shown improvement in their test performance because of peer learning. They are motivated to perform better in the ensuing tests.
- Slow learners who attend coaching classes perform better in internal tests and have shown great improvement.

ii. Co-curricular progress:

- Students' participation in co-curricular activities is periodically monitored.
- Suitable events are identified by the proctors and intimated to the students.
- Students are motivated to participate in multiple activities to enhance their technical and life skills.
- Students are encouraged to do inter-departmental activities.
- Students are involved in various professional society activities, various state and national level symposiums, seminars, conferences & competitions, training programmes, workshops etc.

Efficacy

- Students have actively participated in several co-curricular events inside and outside the college, and have also won prizes. .
- Students have improved their technical and life skills
- Many inter-departmental activities, professional society activities, symposiums, conferences & competitions, training programmes, workshops have made to acquire knowledge.



iii. Extra-curricular progress

- Students are encourage to participate in various extra-curricular activities like sports, NSS, YRC, photography, social activities and other clubs under personality and character development.
- Participation in extra-curricular activities moulds their character and personality. Students emerge physically and mentally strong. Such participations increase the confidence of the students too.

Efficacy

- Students have participated in various zonal, district, state and national level events and have also won prizes.
- Students are involved in several social service activities.
- Students have involved in many village welfare activities, cleanliness drives, health & hygiene programmes in and around Perundurai.
- Multiple Tree plantation programmes have been conducted by Tree planning and NSS clubs.
- Students have exhibited their skills in photography, acting, elocution, aptitude etc. in several in-house & external events and have also won prizes.

iv. Career Settlement

Mentoring through the Career Guidance Cell, Higher Education Cell and Entrepreneurship Development Cell guide the students to achieve their career aim by following the practices like:

- ✓ Training programs are organized for Competitive exams, GATE, GMAT, GRE, etc.,
- ✓ Foreign and additional languages courses are offered as open elective with placement perspective.
- ✓ Entrepreneurial skill development programme are organized through Entrepreneur Development Cell (EDC)
- ✓ One credit courses / Placement training programmes / Skill development programmes are organized
- ✓ Students are involved in Business English Certificate Programme



Efficacy

- Students have cleared GATE Exam.
- Several Students are undergoing competitive exam preparation after graduation.
- Several students have taken Business English Certificate Exam.
- Students have started their own ventures and start-ups

Efficacy of the Mentoring System

The prevailing mentoring system helps us in the following ways:

- Enhances the teaching-learning process making it more student-centric
- Provides impartial advice and encouragement to students
- Assists in problem solving and improves self-confidence of students
- Provides individual and personal care to the students
- Improves students' performance in internal assessment test and end semester exam
- Reduces the risk of failures and drop-outs and improves academic performance.
- Promotes improvement in attendance percentage of students
- Motivates students to participate in various co-curricular and extracurricular activities
- Promotes decision making abilities that support students' goals, abilities and aspirations and helps students to take better control of their career
- Develops a supportive relationship between students and staff
- Creates a positive work environment
- Facilitates information gathering and dissemination
- Promotes effective utilization of college infrastructure and resources.
- Facilitates better placement.

9.1.2 Glimpse of Proctoring Scheme



FIGURE B 9.1.2a Proctor & Proctee group




NANDHA


ENGINEERING COLLEGE (Autonomous)

Proctor Booklet:

A record book named as Proctor booklet is used to record all the activities of students including counseling besides student's basic information, student's progression in curricular, co-curricular, extra-curricular, placement status and conduct information. This record is maintained by the proctors and it makes the monitoring process effective. The sample proctor booklet is enclosed below.



NANDHA ENGINEERING COLLEGE
(Autonomous)
(Approved by AICTE, Accredited By NBA & NAAC
& Affiliated to Anna University, Chennai)
ERODE - 638 052.



STUDENT RECORD
B.E. / B.Tech. Programme

Batch : 2018 to 2021.

Name : M. PRIVANKA.

Roll No. : 17ME100

Register No. : 17ME100

Programme : B.E.

Branch & Section : B.E MECHANICAL 9 B

FIGURE B.9.1.2b Proctor Booklet/ Student Record**NANDHA****ENGINEERING COLLEGE (Autonomous)**

STUDENT PARTICULARS
(Strike out which are all not applicable)

Name	M. P. MUTHUSAMY	Blood Group	O+
D.O.B. & Age	28/11/1999 9 18	Religion	HINDU
Gender	Male / Female	Community & Caste	OC / BC / MBC / SC / ST <u>OC</u>
Mother Tongue	TAMIL	E-mail ID	prajayachandrasekaran@gmail.com
Nationality	TAMIL	Mode of Admission	Counselling / Management / others
Identification Marks: a) MARK ON ROSETT PATTERN b) SCAR ON LEFT HAND			

Parents / Guardian's Name with Address : P. MUTHUSAMY - M. VALASATHI
33, RAJIV NAGAR, 2nd STREET,
SAMUNDIPURAM(S), TIRUPUR-3

Phone / Mobile No. : 9500895371 / 9655994896

Hosteller / DayScholar : Day Scholar

If hosteller Room No. :

I - Yr	II - Yr	III - Yr	IV - Yr

a) Dayscholar / Mode of Conveyance : SELF ARRANGE Bus Route No. : 82

Academic Details :


Exam Passed	Name & Address of the Institution / Board	Max. Marks	Marks Secured	% of Marks	Year of Passing
SSLC	MADURAI KIDS MATRICULATION HIGHER SCHOOL	500	477	95%	2014-2015
HSC (Academic / Vocational)	MADURAI KIDS MATRICULATION HIGHER SCHOOL	1500	919	76.4%	2016-2017
Diploma	---				
Other Degree (.....)	---				

Admission Cut off mark : 145 / Out of 200


Other achievement (if any) :

Any other Details :

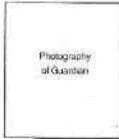
FIGURE B.9.1.2c Proctor Booklet/ Student Record



Phone No. : 9500895371
Name : P. MUTHUSAMY
Occupation : FATHER
Signature : P. MUTHUSAMY



Phone No. : 9655994896
Name : M. VALASATHI
Occupation : MOTHER WIFE
Signature : M. VALASATHI



Photography of Guardian

Phone No. :
Name :
Occupation :
Signature :

Parent's Address	Communication Address
P. MUTHUSAMY, 33, RAJIV NAGAR, 2nd STREET, SAMUNDIPURAM (South) TIRUPUR-3	P. MUTHUSAMY 33, RAJIV NAGAR 2nd STREET SAMUNDIPURAM (South) TIRUPUR-3
E-Mail (Parent / Guardian) :	
Other Details (if any) :	

FIGURE B.9.1.2d Proctor Booklet/ Student record-family information

CONTINUOUS ASSESSMENT TEST (CAT)

Year / Semester : 3 / I

Register No : 11ME100

Sl. No.	Course Code	Course Name	Name(s) of the faculty handling the course / Dept	Marks Obtained Out of 50			
				1	2	3	4
1	11EYAD1	Professional English-3	Mr. Kathirvel	32	40	37	
2	11MYB01	Calculus & Solid Geometry	Mrs. Subashini	50	41	40	
3	11PYB01	Physics for Engineers	Mr. Ravivarman	40	40	45	
4	11CYB01	Applied Chemistry	Mr. Saravanan	49	48	45	
5	11MEC01	Engineering Graphics	Mr. Manikandan	36	25	49	
6	11EEED02	Basic Electrical Electronics and Instrumentation Engineering	Mr. Tamil Selvan	38	32	35	
7							
8							
9							
10							
% of Attendance				84%	85%	83%	

Remarks if any :

Mr. Pragasam
Student's Signature

Name & Signature with Date	Proctor	HOD / Dean	Parent / Guardian
	K. Prasad		M. Mani

FIGURE B.9.1.2e Proctor Booklet/ Student record of Continuous assessment test

END SEMESTER EXAM MARKS

Year / Semester : 3 / I

Month & Year of Exam : DEC - 2017

Register No : 11ME100

Sl. No.	Course Code	Course Name	Name(s) of the faculty handling the course / Dept	Internal Marks Out of	Grade / Appearance				Month & Year of Passing
					I	II	III	IV	
1	11EYAD1	PROFESSIONAL ENGLISH I	MR. KATHIRVEL	39	A+				Jan 17
2	11MYB01	CALCULUS AND SOLID GEOMETRY	MRS. SUBASHINI	37	A				11
3	11PYB01	PHYSICS FOR ENGINEERS	MR. RAVIVARMAN	33	A				11
4	11CYB01	APPLIED CHEMISTRY	MR. SARAVANAN	38	O				11
5	11MEC01	ENGINEERING GRAPHICS	MR. MANIKANDAN	35	B+				11
6	11EEED02	BASIC ELECTRICAL ELECTRONICS & INSTRUMENTATION ENGINEERING	MR. TAMIL SELVAN	29	A				11
7	11MYB01	PHYSICS AND CHEMISTRY LAB	MR. SARAVANAN, MR. SIV	37	A+				11
8	11MYB01	ENGINEERING PRACTICE LAB	MR. MANIKANDAN	45	O				11
9									
10									
11									

Attendance : 84%

GPA / Percentage of Marks : 8.9

CGPA / Cumulative Percentage : 8.9

Remarks if any :

Mr. Pragasam
Student's Signature

Name & Signature with Date	Proctor	HOD / Dean	Parent / Guardian
	H. Pradeep Kumar		M. Mani

FIGURE B.9.1.2f Proctor Booklet/ Student record of End Semester Mark statement



NANDHA

ENGINEERING COLLEGE (Autonomous)

CO-CURRICULAR ACTIVITIES

A. Paper Presentation, Project Presentation, Quiz, etc...

Sl. No.	Year / Sem	Date(s) of the Event	Title of the paper presented / Seminar / Other Event Participated	Name and Address of the Organising Institute	Award / Prize won
1	1 st / 1 st	24.11.18	E-graphic	Jansons Institute of Technology	Participation
2	1 st / 2 nd	19.02.19	Paper Presentation- [Air cars]	Karpagam University	2 nd place
3	1 st / 2 nd	19.2.19	Poster presentation- Renewable fuels	Karpagam University	2 nd place
4	1 st / 2 nd	19.2.19	Auto photography	Karpagam University	2 nd place
5	1 st / 2 nd	22.2.19	Repowis-19	Kongu Engineering College	Participation
6	2 nd / 3 rd	28.7.19	Seminar- Design Engineers Essential skills	C-Cube Technologies	Workshop
7	2 nd / 3 rd	30.8.19	Application of 3D printing in Automotive & Vehicle Industry	BIT	Workshop
8	2 nd / 4 th	1.3.20	SAE Aero Design Challenge	SAEISS	Participation
9	2 nd / 4 th	6.3.20	Trash to Treasure	Kumaraguru College	Participation
10	2 nd / 4 th	7.2.20	Clay Modelling	Kumaraguru College	Participation
11	2 nd / 5 th	16.5.20	BS VI Emission Norms	SAEINDIA	Workshop
12	3 rd / 5 th	4.7.20	Fluid Power Application	BIT	Workshop
13	3 rd / 5 th	6.7.20	Future Approach to Aerospace	Francis Xavier College	Workshop
14	3 rd / 5 th	7.7.20	Investigation of effect of crack	Francis Xavier College	Workshop
15	3 rd / 6 th	16.1.21 to 13.2.21	Automotive R&D Design	Motor Vikatan & Mahindra	Workshop
16	4 th / 7 th	3.7.2021	Fuelcell Design based on Material	UTP, Malaysia	Project

FIGURE B.9.1.2g Proctor Booklet/ Student record of co-curricular activities

C. In-Plant Training :

Sl. No.	Year / Sem	Training Date(s) From.....To.....	Name and Address of the Organization	No. of Days	Remarks
1)	1 st / 2 nd	25.6.19 - 29.6.19	Periyarany Hydraulic Equipment	5	
2)	2 nd / 3 rd	12.12.19 - 14.12.19	Electric Loco shed (Southern Railway)	3	
3)	3 rd / 5 th	23.11.20 - 24.11.20	Ather Energy	30	

D. Mini Projects / Exhibition Models

Sl. No.	Year / Sem	Date(s) of the Event	Event Participated	Organizing Institute Name and Address	Award / Prize won

E. C- VAC / One Credit Courses

Sl. No.	Year / Sem	Date(s) of the Course	Course Name	Remarks
1	3 rd / 5 th	21.2.2021	Statistical Process Control - Lean Manufacturing	
2	3 rd / 5 th	21.2.2021	Press Tool Design.	

FIGURE B.9.1.2h Proctor Booklet/ Student record of co-curricular activities

STUDENTS COUNSELING DETAILS							
Date	Year / Sem	Reason for Counseling & Nature of Complaint	Names & Designation of the Counselor	Faculty Name & Signature			Remarks
				Proctor	HOD	Parent / Guardian	
10.9.19	II / III	Fighting issue with hostel student	V. Chandramohan Professor/Mech	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	Advised the student to behave properly
20.2.20	II / IV	outside area issue	V. Chandramohan Professor/Mech	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>	Warned the student accordingly.

FIGURE B.9.1.2i Proctor Booklet/ Student record of counseling details



Students are involved in cleaning programme at Kullampalayam near Perundurai on 07.03.2020. During this program the students has cleaned the village Panchayat office and nearby areas of the village. The students have insisted the peoples of the village to keep the place near to home as clean. Proctors have guided the students. The importance of cleaning also explained to the people of the village. The public peoples were appreciated the student volunteers for their involvement in cleaning.



FIGURE B.9.1.21 Village Cleaning Work

9.2 Feedback on analysis and reward/corrective measures taken, if any: (10)

Self-Assessment (10)

Feedback collected for all courses: YES/No; specify the feedback collection process; average percentage of students who participate; specify the feedback analysis process; indices used for measuring quality of teaching and learning and summary of the index values for all courses/teachers; number of corrective actions taken.

9.2.1 Feedback collected for all courses:

YES

9.2.2 Specify the feedback collection process;

The feedback collection process consists of following components

- 1) Course End Survey feedback about academics
- 2) Students' feedback on Faculty
- 3) End Semester Question Paper feedback



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ENGINEERING COLLEGE (Autonomous)

4) Stakeholders Feedback

(1) **Course End Survey:**

Course End Survey is collected from every student at the end of the semester for all the courses. The survey is based on the parameters related to the course rated on a four scale basis. The consolidated index value is used in the calculation of indirect attainment for that particular course. The impact of the index value is reflected in overall attainment of the course. If the attainment is not substantial, the following corrective actions are taken to improve the attainment.

- Revision of Syllabus
- Workshops
- Seminars/online courses
- Guest Lectures.

A sample course end survey is presented below.





NANDHA ENGINEERING COLLEGE, ERODE – 52 (AUTONOMOUS)

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE END SURVEY

NAME OF THE STUDENT: INESH. A

REG. No. : 20ME010

SUBJECT CODE / NAME: 17MEC02 – ENGINEERING MECHANICS

CLASS /SEM: I - B.E (MECH) /II

NAME OF THE FACULTY HANDLE: Dr. M. K. MURTHY

Note: Give your feedback on a scale of 3 (3 being the highest)

1. Indicate how well you feel this course provide you with an opportunity to learn the following course outcomes (CO):

CO1. The students will be able to solve the engineering problems on stable particles using conditions for equilibrium

1 2 3

CO2. The students will be able to calculate the reaction forces of various supports and resultant forces on rigid bodies

1 2 3

CO3. The students will be able to solve the problems involving dry friction under equilibrium conditions

1 2 3

CO4. The students will be able to determine the centroid, centre of gravity and moment of inertia of various surfaces and solids

1 2 3

CO5. The students will be able to solve the problems involving dynamics of particles and rigid bodies

1 2 3

FIGURE B.9.2.2a Course End Survey Questionnaire



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NANDHA ENGINEERING COLLEGE, PERUNDURAI, ERODE-638052

DEPARTMENT OF MECHANICAL ENGINEERING

COURSE END SURVEY

COURSE CODE & NAME: 17MEC02 & Engineering Mechanics

FACULTY NAME : Dr.M.K.MURTHY

Reg. No.	The students will be able to solve the engineering problems on stable particles using conditions for equilibrium	The students will be able to calculate the reaction forces of various supports and resultant forces on rigid bodies	The students will be able to solve the problems involving dry friction under equilibrium conditions	The students will be able to determine the centroid, centre of gravity and moment of inertia of various surfaces and solids	The students will be able to solve the problems involving dynamics of particles and rigid bodies
20ME001	3	3	3	3	3
20ME002	2	2	2	2	2
20ME003	1	3	3	3	3
20ME004	3	1	3	3	3
20ME005	2	2	2	2	2
20ME006	1	1	3	3	3
20ME007	3	3	3	3	3
20ME008	2	1	1	2	2
20ME009	3	3	1	3	2
20ME010	3	3	3	1	3
20ME011	2	2	2	2	2
20ME012	1	3	1	3	3
20ME013	2	2	2	2	2
20ME014	1	3	3	1	1
20ME015	2	2	2	2	2
20ME016	3	3	1	3	3
20ME017	2	1	2	2	1
20ME018	2	2	2	2	2
20ME019	3	3	3	3	3
20ME020	3	3	3	3	3
20ME021	2	2	2	2	2
20ME022	3	3	3	3	3
20ME023	3	3	3	3	3
20ME024	2	2	2	2	1
20ME025	3	3	2	3	3



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20ME026	1	3	3	3	3
20ME027	2	2	1	2	2
20ME028	3	3	3	3	3
20ME029	2	2	2	1	2
20ME030	2	2	2	1	1
20ME031	2	2	2	2	2
20ME032	3	3	1	3	3
20ME033	3	3	3	3	3
20ME034	2	2	2	2	2
20ME035	3	3	3	3	3
20ME036	3	3	3	1	3
20ME037	2	1	2	2	2
20ME038	3	3	2	3	2
20ME039	1	3	3	3	3
20ME040	3	3	3	3	3
20ME041	2	2	2	2	2
20ME042	3	3	3	3	3
20ME043	1	3	2	3	2
20ME044	3	1	3	3	3
20ME045	2	2	2	2	2
20ME046	3	3	3	1	3
20MEL01	2	2	2	2	2
20MEL02	2	2	2	2	2
20MEL03	3	3	3	3	1
20MEL04	3	3	3	3	3
20MEL05	2	2	2	2	2
20MEL06	3	3	3	3	3
20MEL07	3	3	1	3	3
20MEL08	2	2	2	2	2
20MEL09	3	3	2	3	2
20MEL10	3	3	3	3	3
20MEL11	2	1	2	2	2
20MEL12	3	3	3	3	3
20MEL13	2	2	2	2	2
20MEL14	3	3	3	3	3
20MEL15	2	2	2	2	2
20MEL16	2	2	2	2	2
20MEL17	3	3	3	3	3
20MEL18	2	2	2	2	2



20MEL21	3	3	1	3	3
20MEL22	2	2	2	2	1
20MEL23	3	3	3	3	3
20MEL24	1	3	3	3	3
20MEL25	2	2	2	2	2
20MEL26	3	3	2	3	1
20MEL27	3	3	3	3	3
20MEL28	2	1	1	2	2
20MEL29	3	3	3	3	3
20MEL30	2	2	2	2	2
20MEL31	1	2	2	2	2
20MEL32	2	2	2	2	2
20MEL33	3	3	3	3	3
20MEL34	3	1	3	3	3
20MEL35	2	2	2	2	2
20MEL36	3	3	3	3	3
20MEL37	3	3	1	3	3
20MEL38	2	2	2	2	2
20MEL39	3	3	2	3	1
20MEL40	3	3	3	3	3
20MEL41	3	3	3	3	3
20MEL42	2	2	2	2	2
20MEL43	3	3	3	3	3
20MEL44	3	3	2	3	1
20MEL45	3	3	3	3	3
20MEL46	2	2	2	1	2
20MEL47	3	3	1	3	3
20MEL48	2	2	2	2	2
20MEL49	2	1	2	2	2
20MEL50	1	3	3	3	3
20MEL51	3	3	3	3	3
20MEL52	2	2	2	2	2
20MEL53	3	3	3	3	3
20MEL54	3	3	3	3	3
20MEL55	2	2	2	2	2
20MEL56	3	3	2	3	2
20MEL57	3	3	3	3	3



20MEL58	2	2	2	2	2
20MEL59	3	3	3	3	3
20MEL60	2	2	2	2	2
20MEL61	3	3	3	3	3
20MEL62	2	2	2	2	2
20MEL63	3	3	3	3	3
20MEL64	1	2	2	2	2
20MEL65	2	2	2	2	2
20MEL66	3	3	3	3	3
20MEL67	3	1	3	3	3
20MEL68	2	2	2	2	2
20MEL69	3	3	1	3	3
20MEL70	3	3	3	3	3
20MEL71	2	2	2	1	2
20MEL72	3	3	2	3	2
20MEL73	3	3	3	3	1
20MEL74	2	2	2	2	2
20MEL75	1	3	3	3	3
20MEL76	2	2	2	2	2
AVERAGE	2.39	2.43	2.34	2.47	2.39

Total No. of students - 122

% OF ATTAINMENT

HIGH - 3	60	65	53	66	58
Moderate-2	59	45	57	47	54
Low -1	59	12	12	9	10
	59	81.15	77.87	82.24	79.78

% OF Overall ATTAINMENT = 80.1

[Signature]
FACULTY /C

[Signature]
HoD

Dr. M.EASWARAMOORTHY M.E., Ph.D.,
Head of the Department,
Department of Mechanical Engineering
Nandha Engineering College (Autonomous)
ERODE - 538 052.

FIGURE B.9.2.2.b Analysis of Course End Survey**NANDHA****ENGINEERING COLLEGE (Autonomous)**

(2) Students' feedback on Faculty

The feedback on course handling faculty is collected from every student at the mid of the semester on different parameters as shown in the figure below. The threshold value is fixed as 6 on 10-point scale and the faculty members scoring a total of less than 6 are counseled by the Head of the department and Principal. This helps the faculty to identify the areas of improvement in their teaching pedagogy.

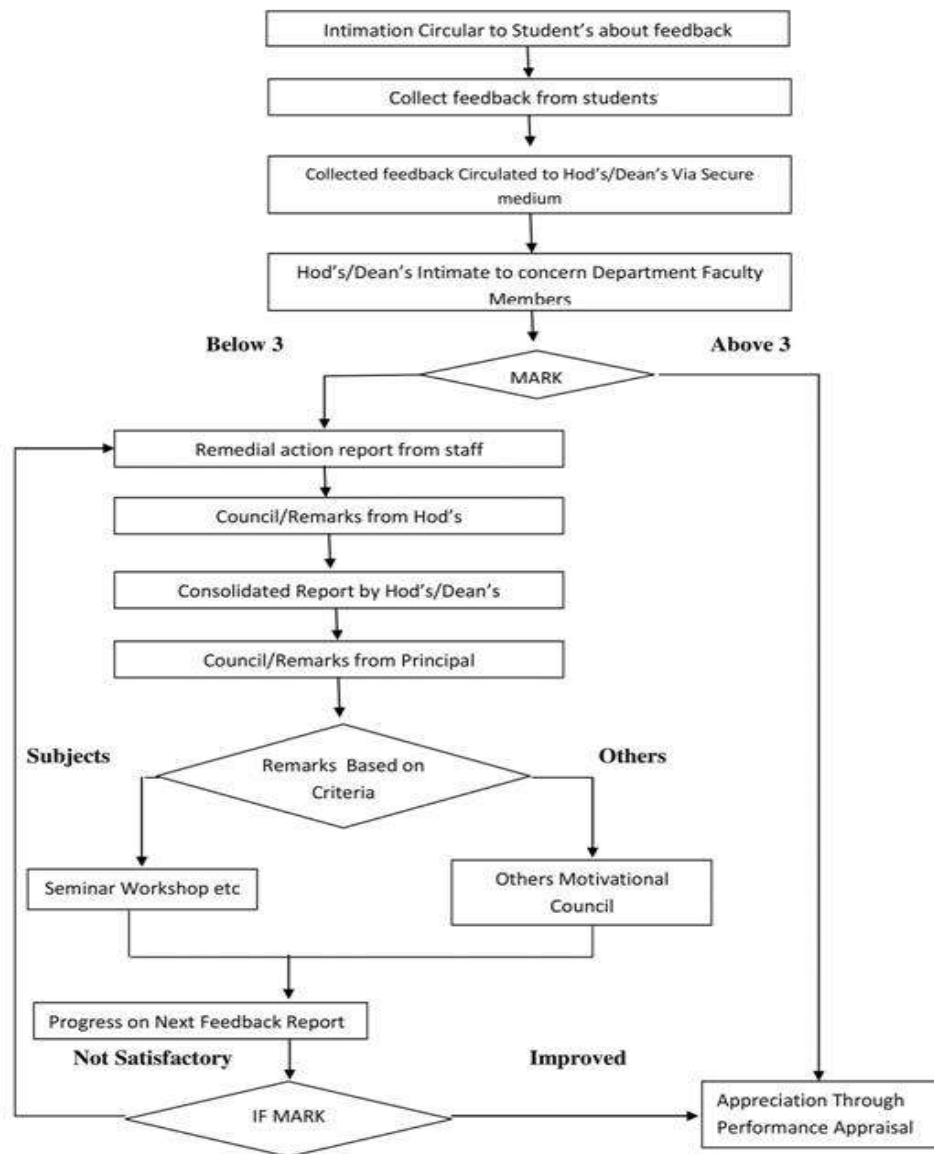


FIGURE B.9.2.2c Flowchart – Mid Semester feedback process

NANDHA ENGINEERING, ERODE – 638 052
(Autonomous)

DEPARTMENT OF MECHANICAL ENGINEERING

DEPARTMENT CIRCULAR

DATE : 29.12.2021

CLASSIFICATION	ROUTINE	IMMEDIATE
ORGINATOR : H.O.D		CIRCULATED TO : ALL FACULTY MEMBERS (MECH)

Sub.: Faculty's Evaluation Based on Students Feedback – Reg.

Faculty's Evaluation Based on Student's Feedback 2021-2022, ODD SEMESTER (I/II/III/IV Yr). The strength and weaknesses of teaching skills of each faculty were identified from the marks obtained under each feedback parameter. Faculties are requested to have a look at their feedback forms and percentage without fail. If the feedback aggregate total point is **less than 3.5**, then the **faculty should Counseled and insists to attend FDP/Workshop/Seminar/course or warned** related to high impact teaching skills.


29/12/2021
HOD – MECH
(Dr.M.ESWARAMOORTHI)



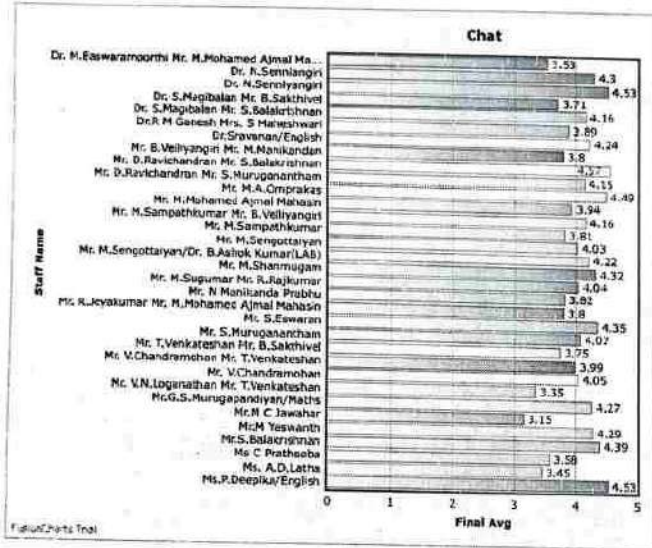
NANDHA

ENGINEERING COLLEGE (Autonomous)

Department	Faculty Name	Course Name	Total	No. of Students Submitted Feedback	Average / 10	Passing Scale
MECH	Dr. M.Easwaramoorthi Mr. M.Mohamed Ajmal Mahasin	Project Work I	777.00	22	35.32	3.53
MECH	Dr. N.Senniylangiri	Internal Combustion Engines	2,195.00	51	43.04	4.30
MECH	Dr. N.Senniylangiri	Manufacturing Processes	1,555.00	35	44.43	4.44
MECH	Dr. N.Senniylangiri	Manufacturing Processes Laboratory	1,496.00	33	45.33	4.53
MECH	Dr. S.Magibalan Mr. B.Sakthivel	CAD / CAM / CIM	1,002.00	27	37.11	3.71
MECH	Dr. S.Magibalan Mr. S.Balakrishnan	CAD / CAM Laboratory	832.00	20	41.60	4.16
MECH	Dr.R M Ganesh Mrs. S Maheshwari	Employability Enhancement and Analytical Skills	467.00	12	38.92	3.89
MECH	Dr.Sravanen/English	Soft Skills - Listening and Speaking	1,610.00	38	42.37	4.24
MECH	Mr. B.Vellyangiri Mr. M.Manikandan	Design of Machine Elements	2,559.00	70	37.99	3.80
MECH	Mr. D.Ravichandran Mr. S.Balakrishnan	Power Plant Technology	1,052.00	23	45.74	4.57
MECH	Mr. D.Ravichandran Mr. S.Muruganatham	Dynamics of Machinery	2,761.00	68	40.60	4.06
MECH	Mr. D.Ravichandran Mr. S.Muruganatham	Dynamics of Machinery Laboratory	2,782.00	67	41.52	4.15
MECH	Mr. M.A.Omprakas	Manufacturing Processes	2,019.00	45	44.87	4.49
MECH	Mr. M.A.Omprakas	Manufacturing Processes Laboratory	1,837.00	42	43.74	4.37
MECH	Mr. M.A.Omprakas	Metal Casting Technology	2,298.00	57	40.32	4.03
MECH	Mr. M.Mohamed Ajmal Mahasin	Product Design	2,088.00	53	39.40	3.94
MECH	Mr. M.Sampathkumar Mr. B.Vellyangiri	Constitution of India	2,702.00	65	41.57	4.16
MECH	Mr. M.Sampathkumar	Advanced Welding Processes	1,982.00	52	38.12	3.81
MECH	Mr. M.Sengottaiyan	Fluid Mechanics and Machinery (Theory + Lab)	1,976.00	49	40.33	4.03
MECH	Mr. M.Sengottaiyan/Dr. B.Ashok Kumar(LAB)	Fluid Mechanics and Machinery (Theory + Lab)	1,645.00	39	42.18	4.22
MECH	Mr. M.Shanmugam	Computer Aided Machine Drawing	1,547.00	36	42.97	4.30
MECH	Mr. M.Shanmugam	Engineering Thermodynamics	1,381.00	32	43.16	4.32
MECH	Mr. M.Sugumar Mr. R.Rajkumar	Heat and Mass Transfer (Theory + Lab)	2,747.00	68	40.40	4.04
MECH	Mr. N Manikanda Prabhu	Consumer Electronics	382.00	10	38.20	3.82
MECH	Mr. R.Jeyakumar Mr. M.Mohamed Ajmal Mahasin	Total Quality Management	760.00	20	38.00	3.80
MECH	Mr. S.Eswaran	Computer Aided Machine Drawing	1,695.00	39	43.46	4.35
MECH	Mr. S.Eswaran	Engineering Economics and Cost Analysis	1,988.00	47	42.30	4.23
MECH	Mr. S.Muruganatham	Materials Engineering and Technology	1,181.00	29	40.72	4.07
MECH	Mr. T.Venkateshan Mr. B.Sakthivel	Computer Aided Analysis Laboratory	788.00	21	37.52	3.75
MECH	Mr. V.Chandramohan Mr. T.Venkateshan	Fluid Power System	2,670.00	67	39.85	3.99
MECH	Mr. V.Chandramohan	Materials Engineering and Technology	2,027.00	50	40.54	4.05
MECH	Mr. V.N.Loganathan Mr. T.Venkateshan	Finite Element Analysis	737.00	22	33.50	3.35
MECH	Mr.G.S.Murugapandyan/Maths	Fourier Series and Partial Differential Equations	3,845.00	90	42.72	4.27
MECH	Mr.M C Jawahar	Waste Water Treatment	409.00	13	31.46	3.15
MECH	Mr.M Yeswanth	Building Services	429.00	10	42.90	4.29



Department	Faculty Name	Course Name	Total	No. of Students Submitted Feedback	Average / 10	Score In 5 Scale
MECH	Mr.S.Balakrishnan	Engineering Thermodynamics	2,106.00	48	43.88	4.39
MECH	Ms C Pratheeba	Renewable Energy Technology	465.00	13	35.77	3.58
MECH	Ms. A.D.Latha	Additive Manufacturing Processes	483.00	14	34.50	3.45
MECH	Ms.P.Deepika/English	Soft Skills - Listening and Speaking	1,630.00	36	45.28	4.53



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NANDHA ENGINEERING COLLEGE (Autonomous)

Affiliated to Anna University Chennai + Approved by AICTE + Accredited by NBA-New Delhi
Pitchandampalayam. (P.O). Valkkalmedu, Erode - Perundurai Road, Erode - 638 052
Phone : 04294-225585, 223711, 223722, 226393 Mobile : 73737 23722 Fax : 04294 - 224787
Website : www.nandhaengg.org E.mail : info@nandhaengg.org

Dr.N.Rengarajan, B.Sc., B.Tech. M.E., Ph.D
PRINCIPAL

Date: 09-12-2021

Time: 11.00 AM

CIRCULAR

CLASSIFICATION	ROUTINE	IMMEDIATE
Academic	Originator : PRINCIPAL	CIRCULATED TO : Deans and HODs

All the students studying UG (B.E/B.Tech & PG (MBA, MCA) need to provide their feedback on courses taught to them during the current semester (2021-2022 Odd Semester).

All the students are required to register their feedbacks through following link <https://bit.ly/3eQ0vtq> on 14.12.2021 as per the mentioned time slot.

Year	Department	Slot
I	All Departments (UG&PG)	10.00 – 10.30 AM
II	All Departments (UG&PG)	11.00-11.30 AM
III	All Departments (UG&PG)	2.00-2.30 PM
IV	All Departments (UG)	3.00-3.30 PM

Points to be followed:

- Students have to REGISTER with any one id randomly assigned for your student.
- LOGIN by using that same id. If your student is trying an id but that was already used by someone else means it will not accept, at that time ask them to try a different number within that range assigned for your student.
- Select the EDIT OPTION (symbol) and then choose Theory or Practical.
- Now choose the option for all the questions and repeat for all the courses and save.

(Signature)
PRINCIPAL
Nandha Engineering College
(Autonomous)
Erode - 638 052.



NANDHA

ENGINEERING COLLEGE (Autonomous)

NANDHA ENGINEERING COLLEGE, (Autonomous) ERODE-638 052.

DEPARTMENT OF MECHANICAL ENGINEERING

FACULTY COUNSELING FORM

Faculty Name: Mr. T. Venkatesham Date: 31.12.2021
 Faculty Designation: Assistant Professor Time: 11.00 am
 Subject Code & Name: 17MEC21 - FINITE ELEMENT ANALYSIS Year / Sem: IV yr / VII Sem
 Reason for Counseling: Student's Feedback score - 3.35

COURSE CONTENT	Tick Mark
The faculty covers the entire syllabus	✓
The faculty discusses topics in detail	✓
The faculty possesses the knowledge of the subject taught	✓
The faculty communicates clearly	✓
The faculty inspires me by his/her knowledge in the subject	✓
The faculty providing course materials and other technical details	✓
TEACHING LEARNING PROCESS	
The faculty is punctual to the class	✓
The faculty engages the class for the full duration and completes the course in time	✓
The faculty comes fully prepared for the class	✓
The faculty provides guidance counseling in academic and non-academic matters in/outside the class	✓

Description of Counseling: (Please describe in a few sentences)

Faculty had been insisted to ~~concentrate~~
 concentrate more on teaching skills to make
 the students understand the problematic course
 easily.



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COUNSELING ACTION TAKEN: (Please Tick given below)

Verbal Warning: Written Warning:

ACTION TO BE TAKEN: (What changes will faculty make to correct their inappropriate work behavior?)

Course related FDP and workshop to be attended by faculties to improve their skills.


FACULTY COMMENTS:

I agree with the action taken for the above Suggestion(s):

I disagree with the action taken for the above Suggestion(s):

Counseling is intended to be a constructive process to assist you to identify, discuss and remedy aspects of your teaching performance or conduct that need improvement. As noted above, these aspects have been discussed with you and require your immediate attention. This form does not constitute discipline and will not be placed in your personnel.

ie. Failure to correct your performance may lead to further administrative action.

 21.12.2021
Faculty Signature / Date


 31.12.2021
HoD Signature / Date

FIGURE B.9.2.2d Measuring various parameters of Teaching and Learning Process

Action taken on Feedback process



NANDHA

ENGINEERING COLLEGE (Autonomous)

95% of students have given their feedback. In this feedback the faculty who are below 6 marks out of 10 are advised to meet the principal with their HoD for counseling. The performance of the above faculty members is monitored continuously.



(3) End Semester Question Paper feedback

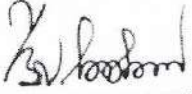
Feedback on end semester question paper is collected from the students to know syllabus coverage, discrepancies and complexity of question paper. A sample feedback form is given below.

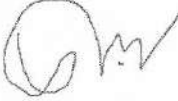
**NANDHA ENGINEERING COLLEGE****(Autonomous)
ERODE -52****Office of the Controller of Examinations****End Semester Question Paper and Expected Result Analysis Report**

Staff Name and Dept : B.VELLIYANGIRI		
Class / Semester : III/VI		
Subject name : DESIGN OF TRANSMISSION SYSTEMS		
Subject code : 17MEC18		
Question Paper Code : 1762124		
Date of Examination : 15.06.2021		
No of Students appeared : 115		Expected pass percentage : 95.6 %
No of Students Expected to Pass : 110		
No of Students Expected to Fail : 05		
1	Nature of questions	Below Average(Easy) Average(Moderate) High(Difficult)
		Theoretical / <u>Analysis</u>
2	If the question paper covers all 5 units	Yes/No
3	Are all units given proper weightage of marks	Yes/No
4	Name the question numbers which are given in internal assessment exams	NIL
5	Name the question numbers which are given in previous University question papers and end semester examinations question papers	A2,A7,A10.B1,B4,B6,C2,C4
6	Name the question numbers which are out of syllabus	NIL

**NANDHA****ENGINEERING COLLEGE (Autonomous)**

7	Name the question numbers which are covered in recommended text books	ALL
8	Name the question numbers which are not covered in recommended text books	NIL
9	Is modification required	Yes/No
10	Report from students(Randomly selected) Name	<u>Comments</u>
	1.VIGNESH(18ME068)	MODERATE
	2.MONESH RAJ(18ME035)	AVERAGE
	3.RUBAN A (18MEL45)	EASY
	4.MANOJ M (18ME033)	EASY
	5.DEV (18ME007)	EASY


(B.VELLIYANGIRI)
Staff Name with Signature


HoD


Principal

Note :

1. This report has to be submitted on the day of the examination.
2. The Faculty can collect the Question Paper after the conclusion the examinations from COE.
3. The detailed Answer Key is to prepared (in A4 sheet typed preferably) for valuation and the faculty for the preparing answer key has to be decided by Dean / HOD.
4. Rs. 500/- will be paid as remunerations for preparing the Answer Key.
5. The date for submission of Answer Key: 3 days after the exam of the subject.

FIGURE B 9.2.2e Question Paper feedback form


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(4) Stakeholders Feedback

Structured feedback for design and review of syllabus is received from students, Teachers, Employers, Alumni.

KredoVoiceOut - The Ultimate Feedbacks And Accreditation Management System

Kredo Voice Out  **NANDHA ENGINEERING COLLEGE**

STUDENT FEEDBACK 20-21

Name *

Degree: *

Program: *


STUDENT FEEDBACK 20-21

1	The curriculum and syllabus are well organized and easy to follow	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
2	Is the entire syllabus covered by the faculty?	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
3	Laboratory exercise improve my ability to understand concepts and helps to relate and apply theory to practice	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
4	The depth of the syllabus is proportional to course outcomes	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
5	The correct credit were allocated to the course depending on the difficulty of the course	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
6	The Syllabus provide the necessary skill set required by the industry	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
7	The books prescribed as reference material are relevant, updated and appropriate	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
8	The elective offered are pertinent to the specification streams and to technology advancements	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
9	Is the Syllabus career oriented?	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
10	is the Pre-requisite course appropriate?	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor

nandhaengg.kredovoiceout.in/#/OtherFeedbacks 1/2

FIGURE B 9.2.2f Student Feedback Form**NANDHA****ENGINEERING COLLEGE (Autonomous)**

3/1/22, 9:16 AM KredoVoiceOut - The Ultimate Feedbacks And Accreditation Management System

Kredo Voice Out  NANDHA ENGINEERING COLLEGE

CIVIL FACULTY FEEDBACK 20-21

Name *

Degree: *

Program: *

CIVIL FACULTY FEEDBACK 20-21

1	Curriculum and Syllabus on par with recent trends.	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
2	Elucidation of Course Outcomes	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
3	Adequacy of Academic tasks in the course plan	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
4	Syllabus in accordance with Competitive Examinations.	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
5	Importance and Relevance of the course to Industry and Societal needs	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
6	Accessibility of Relevant Reading Materials and E -sources in the library	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
7	Course equilibrium between theory and application	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
8	Privilege to propose, modify, suggest and incorporate new topics in the syllabus through proper forum	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
9	Flexibility in adopting new techniques / tools/ strategies in teaching	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor
10	Scope provided for Research activities.	<input type="radio"/> Excellent	<input type="radio"/> Good	<input type="radio"/> Fair	<input type="radio"/> Poor

Any Other Comments:

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FIGURE B 9.2.2g Faculty Feedback Form



NANDHA

ENGINEERING COLLEGE (Autonomous)

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Kredo Voice Out


EMPLOYER FEEDBACK 20-21

Name *

Degree: *

Program: *

EMPLOYER FEEDBACK 20-21

1	Satisfaction with the caliber of the graduates	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor
2	Satisfaction that graduates are learning the right skills/courses relevant to your organization's requirements	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor
3	Satisfaction with the speed at which course content is being adapted to meet the changing industrial needs	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor
4	Institutional Reputation	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor
5	Relevant subject or Discipline Knowledge	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor
6	Quality of Employability Skills and Attributes of our graduates	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor
7	The Institution produces high quality graduates	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor
8	Successful past experience of recruiting from this institution	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor
9	Organization and institution collaborate on joint research projects	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor
10	Ability to apply professional and / or technical knowledge in the workplace	<input type="radio"/> Excellent <input type="radio"/> Good <input type="radio"/> Fair <input type="radio"/> Poor


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FIGURE B 9.2.2h Employer Feedback Form



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KredoVoiceOut - The Ultimate Feedbacks And Accreditation Management System

Kredo Voice Out


ALUMNI FEEDBACK 20-21

Name *

Degree: *

Program: *

ALUMNI FEEDBACK 20-21

- 1 Academic initiatives taken by the college to improve technical or Industry required knowledge is sufficient. Excellent Good Fair Poor
- 2 Co-curricular initiatives taken by the college to improve the students technical / professional Skills Excellent Good Fair Poor
- 3 Whether the Choice Based Credit System was in tune with the existing or emerging trends of the industry? Excellent Good Fair Poor
- 4 Whether the Programme offered to you was suitably demanding the industrial needs? Excellent Good Fair Poor
- 5 Was the Syllabus prescribed for the programme are well organized and structured? Excellent Good Fair Poor
- 6 Content of the courses (subjects) offered under my programme was up to date and relevant Excellent Good Fair Poor
- 7 Project Work / Internships offered under my programme was challenging & constructive Excellent Good Fair Poor
- 8 Open Elective courses offered were diverse and resourceful Excellent Good Fair Poor
- 9 Overall learning environment offered in the campus Excellent Good Fair Poor

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FIGURE B 9.2.2i Alumni Feedback Form



9.3 Feedback on Facilities**(5)****Self Assessment (5)***Feedback collection, analysis and corrective action*

Feedbacks on the following facilities are collected

- Academics
- Library
- Canteen
- Technical - Computer
- Transport
- Cash Counter
- Office
- Reception
- New Requirements
- Mess
- Carpenter and Electrical Works
- Maintenance work
- Plumbing works
- Security
- Hostel

Based on the feedback collection process, corrective actions are taken.

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Class Committee meeting:

1.1 Every class shall have a class committee consisting of teachers of the class concerned, student representatives and a chairperson who is not teaching the class. It is like “Quality Circle” with the overall goal of improving the teaching-learning process.

1.2 The chairperson of the class committee invites Faculty advisor(s) and the student representatives to the meeting.

1.3 Principal may participate in any class committee of the institution.

1.4 The chairperson prepares the minutes of every meeting, submit the same to Principal within two days of the meeting and arrange to circulate it among the students and teachers concerned. If there are some points in the minutes requiring action by the Management, the same shall be brought to the notice of the Management by the Head of the Institution.

Average percentage of students who participate:

- For class committee Process, five students from each branch will be instructed to attend the class committee meeting.
- The students selection of each branch will be based on the following criteria;
 - a. A days scholar availing college bus (Boy and Girl)
 - b. A hosteller
 - c. A lateral entry
 - d. An Academic Topper
 - e. Slow learners

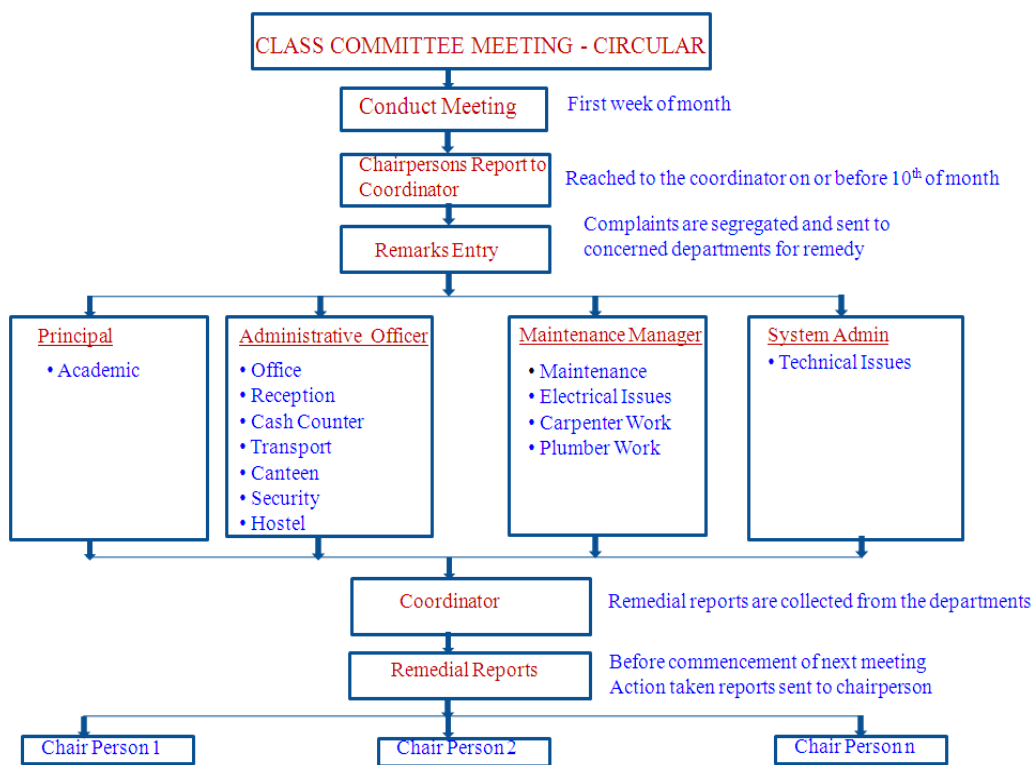


FIGURE B 9.3a Flowchart – Class committee meeting

Table below describes the template of Academic and General Issue

TABLE B 9.3a Template of Academic and General Issue

**NANDHA ENGINEERING COLLEGE (Autonomous),
ERODE- 52.**

Class Committee Meeting –(AY: 2020 - 2021)- ODD / Even semester

Date		Department	
Class		Strength present	
Members of the meet			
Name	Designation	Department	Signature

Minutes:

Academics - Responsibility - HOD

Course Code	Faculty name	Remarks	Number of student responses

TABLE 9.3b Minutes meeting on issues

of Class Committee academics and general

Department Feedback - Responsibility - HOD

Course	Remarks	Number of student responses

Institutional Feedback - Responsibility - Principal (Principal Office)

Course	Remarks	Number of student responses

Curriculum Feedback - Responsibility - HOD & DOA

Course	Remarks	Number of student responses



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NANDHA ENGINEERING COLLEGE, ERODE - 52
CCM COMPLAINT REPORT - DEC 2021

SNo	Date	Dept	Facility	Location	Staff Name	Work Status	class	No of Similar Response
263080	10/12/2021	NEC-AGRI	sports events circulars need to be circulated to students in proper time	FIRST YEAR AGRI STUDENTS	Agricultural Engineering - 7373556600	Not Completed	I_ II_ III_ IV_ AGRI	20
263083	10/12/2021	NEC-AGRI	Need coat for field work.	II ND YEAR AGRI STUDENTS	Agricultural Engineering - 7373556600	Not Completed	I_ II_ III_ IV_ AGRI	20
263084	10/12/2021	NEC-AGRI	Practice for VART/APPS conducted on Saturdays is needed	II ND YEAR AGRI STUDENTS	Agricultural Engineering - 7373556600	Not Completed	I_ II_ III_ IV_ AGRI	20
263085	10/12/2021	NEC-AGRI	Placement classes from senior are conducted earlier.This can be in include in Saturdays.	II ND YEAR AGRI STUDENTS	Agricultural Engineering - 7373556600	Not Completed	I_ II_ III_ IV_ AGRI	20
263086	10/12/2021	NEC-AGRI	17AGC12 Mr. Mukilan 5 Units Completed. As per academic schedule classes going smoothly .Problematic portions in online classes are handled faster.	III YEAR AGRI STUDENTS	Agricultural Engineering - 7373556600	Not Completed	I_ II_ III_ IV_ AGRI	20
263087	10/12/2021	NEC-AGRI	17AGC14 Mr. K. Jeya Prakash 5 Units Completed. As per academic schedule classes going smoothly. Problematic portions in online classes are handled faster.	III YEAR AGRI STUDENTS	Agricultural Engineering - 7373556600	Not Completed	I_ II_ III_ IV_ AGRI	20

263047	09/12/2021	NEC-AIDS	17MYB01-Ms.R.Amutha :Portion coverage is too fast. Students are requested to teach in a slow manner with detail explanation	FIRST YEAR AI_DS	VANATHI D-7373740011	Not Completed	I_AIDS	49
263049	09/12/2021	NEC-AIDS	PROCTOR HOUR-Since now, proctor hour is not conducted as per the academic schedule	FIRST YEAR AI_DS	VANATHI D-7373740011	Not Completed	I_AIDS	49
263051	09/12/2021	NEC-AIDS	Buddy/Alumi Hour-Not yet started	FIRST YEAR AI_DS	VANITHA P-9488066933	Not Completed	I_AIDS	49
263052	09/12/2021	NEC-AIDS	Google classroom is not yet created for individual subjects.All the subject materials are shared through official Whatsapp group it is very difficulty to follow the same	FIRST YEAR AI_DS	VANATHI D-7373740011	Not Completed	I_AIDS	49
263054	09/12/2021	NEC-AIDS	Projector is not working properly. Faculty members are using chalk & board to deliver the lecture.	FIRST YEAR AI_DS	VANATHI D-7373740011	Not Completed	I_AIDS	49
263055	09/12/2021	NEC-AIDS	For Clear visibility in the black board. Students requested additional fluorescent lamp near to the black board	FIRST YEAR AI_DS	VANATHI D-7373740011	Not Completed	I_AIDS	49
263056	09/12/2021	NEC-AIDS	Insects problem is severe in the floor as well as in classroom	FIRST YEAR AI_DS	VANATHI D-7373740011	Not Completed	I_AIDS	49
263058	09/12/2021	NEC-AIDS	Students requested all provisions in drinking water system with basic needs in their respective floor	FIRST YEAR AI_DS	VANATHI D-7373740011	Not Completed	I_AIDS	49
262931	09/12/2021	NEC-BME	In second year BME- NO faculty members in ANATOMY subject	Block 3 II YR BME	VIJAYALAKSHMI R-	Not Completed	I_ II_ III_ IV_ BME	54
262937	09/12/2021	NEC-BME	Artificial organs, subject- Still no allocations of faculty	IV YEAR BME	VIJAYALAKSHMI R-	Not Completed	I_ II_ III_ IV_ BME	10



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262939	09/12/2021	NEC-MECH	Need OD for Sports	I yr mechanical	EASWARAMOORH TI M- 9842013355	Not Completed	I_ II MECH	20
262942	09/12/2021	NEC-MECH	17ECC02- we need extra clarifications in the subject	I yr mechanical	EASWARAMOORH TI M- 9842013355	Not Completed	I_ II MECH	41
262945	09/12/2021	NEC-MECH	17MEC01-Need more problems and explanations	I year mechanical	EASWARAMOORH TI M- 9842013355	Not Completed	I_ II MECH	41
262948	09/12/2021	NEC-MECH	Students need club activities and Industrial visit	II YEAR MECH	EASWARAMOORH TI M- 9842013355	Not Completed	I_ II MECH	45
262952	09/12/2021	NEC-MECH	17MEC04,17MEC05-Since they are lateral entry students, Need topic wise notes/problems for easy understanding	II MECH B	EASWARAMOORH TI M- 9842013355	Not Completed	I_ II MECH	45
262953	09/12/2021	NEC-MECH	17MEP04,17MEP03,17MEP04-Lab not yet started	II MECH B	EASWARAMOORH TI M- 9842013355	Not Completed	I_ II MECH	45

TABLE B 9.3c Members details of Class Committee meeting for academics and general issues

Staff Members:				Student Members:	
Sl.No.	Subject	Staff Name	Sign	Name	Sign
1	Quantity Surveying and Estimation	Mr.S.K.Gowtham		B.JIRUTHIKA NANOJINI	
2	Prefabricated Structures	Mr.S.Gnanavenkatesh		T.BASKAR	
3	Transport Planning and Management	Mr.A.Abdul Hameed		R. Julia Elavarasi	
4	Industrial Wastes treatment and Disposal	Mr.G.Amrithagadeshwaran		V.Karthikeyan	
5	Municipal Solid Waste Management	Mr.M.Yeshwanth		S. ASWINI	
6	Construction Management	Mr.K.L.Ravisanakar			
7	Total Quality Management	Ms.S.Tharanya			
8	Waste management (OE)	Ms.R.Pradeepa Mr.G.Amrithagadeshwaran			
L1	Design Project	Mr.A.Abdul Hameed Mr.G.Amrithagadeshwaran Ms.K.Selvi			
L2	Quantity Surveying and Estimation Lab	Mr.P.Shankar Mr.S.K.Gowtham			

Chairperson Name	Designation/ Dept.
K.S.SATHYA	AP/CSE

TABLE B 9.3d Feedback and action taken report for Library issues



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SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
240118	24/01/2020	Tech	NEC	NEC-AGRI	Design Data books are not available in library (III Year).	Library	CCM	SADAGOBAN K-9994427585	Library	Completed
240162	27/01/2020	Tech	NEC	NEC-MBA	Some subject books are not available	MAIN LIBRARY	CCM	DEVARAJ.N-6380452045	Library	Completed
240152	27/01/2020	Tech	NEC	NEC-MBA	Need library hour 1 per week	Library	CCM	DEVARAJ.N-6380452045	Library	Completed
251460	30/01/2021	Tech	NEC	NEC-EEE	Students need to take books from main library. Since only final year students are allowed to take books now.	III EEE Class (Main Library)	CCM	SATHEESH A-9750722999	Library	Completed
262470	20/10/2021	Tech	NEC	NEC-MCA	Library- Students need to take books from department library	MCA III YEAR	CCM	SADAGOBAN K-9994427585	Library	Completed
262464	20/10/2021	Tech	NEC	NEC-MCA	Library- Students need to take books from department library	block 3 II MCA class	CCM	Vellingiriraj - 9965361666	Library	Completed
262479	21/10/2021	Tech	NEC	NEC-CVL	Requisition from students to access library books from the main library	library	CCM	SADAGOBAN K-9994427585	Library	Completed
274096	28/04/2022	Tech	NEC	NEC-AGRI	The students requested for department library. The studentS requested more copies of books for crop production in library	I-AGRI	CCM	Dhana Nivetha - 9095845257	Library	Completed

TABLE B 9.3e Feedback and action taken report for canteen issues

SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
240249	24/01/2020	Tech	NEC	NEC-MECH	Price increased, need to reduce	Canteen	CCM	MURTHIM K-	Canteen	Completed
240258	24/01/2020	Tech	NEC	NEC-MECH	Price increased for food items	Canteen	CCM	MURTHIM K-	Canteen	Completed
240285	24/01/2020	Tech	NEC	NEC-MECH	Price increased for food items	Canteen	CCM	MURTHIM K-	Canteen	Completed
240276	24/01/2020	Tech	NEC	NEC-MECH	Price increased for food items	Canteen	CCM	MURTHIM K-	Canteen	Completed
240286	24/01/2020	Tech	NEC	NEC-MECH	canteen 10.40 to 10.55 over rush	Canteen	CCM	MURTHIM K-	Canteen	Completed
240738	25/02/2020	Tech	NEC	NEC-EEE	Canteen item rate increased but quantity decreased.	CANTEEN	CCM	SATHEESHA-9750722999	Canteen	Completed
240771	24/02/2020	Tech	NEC	NEC-EEE	In canteen snacks and beverage rates to be reduced.	EEE-I	CCM	SATHEESHA-9750722999	Canteen	Completed
240777	24/02/2020	Tech	NEC	NEC-EEE	In canteen snacks and beverage rates to be reduced. Not yet received action taken from 1st CCM.	CANTEEN	CCM	SATHEESHA-9750722999	Canteen	Completed
240778	24/02/2020	Tech	NEC	NEC-EEE	In canteen snacks and beverage rates to be reduced. Not yet received action taken from 1st CCM.	CANTEEN	CCM	SATHEESHA-9750722999	Canteen	Completed
262906	9/12/2021	Tech	NEC	NEC-MCA	Students felt that service is delayed in canteen. They need separate cash counter for boys and girls.	CANTEEN	CCM	A K VELUSAMY - 9942999355	Canteen	Completed
262961	9/12/2021	Tech	NEC	NEC-ECE	FOOD,SNACKS AVAILABILITY IS LOW	CANTEEN	CCM	A K VELUSAMY - 9942999355	Canteen	Completed

TABLE B 9.3f Feedback and action taken report for technical - computer issues



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SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
251348	9/2/2021	Tech	NEC	NEC-ECE	TWO SYSTEMS	PCB DESIGN LAB BLOCK 2 FIRST FLOOR	New Requirements	SRINIVASAN K.	Technical-Computer	Completed
251465	30/10/2021	Tech	NEC	NEC-EEE	Projector is not working	IV EEE Class (B IV - 306)	CCM	SATHEESH A-9750722999	Technical-Computer	Completed
251622	8/3/2021	Tech	NEC	NEC-IT	Need to fit a Projector in ceiling stand	BLOCK - III - II Floor - 213 (IT Lab)	Complaints	GIRIPRASATH K S-9840139951	Technical-Computer	Completed
251720	16/03/2021	Tech	NEC	NEC-MBA	projector not working	Block 5 MBA LAB	Complaints	NATHIYA.K-9976855564	Technical-Computer	Completed
251721	16/03/2021	Tech	NEC	NEC-MBA	system not working	BLOCK 5 MBA LAB	Complaints	NATHIYA.K-9976855564	Technical-Computer	Completed
262115	24/09/2021	Tech	NEC	NEC-CHEMICAL	Installation of WIFI Device in first floor corridor. Installation of internet (LAN) connection (1 No) in all laboratories.	block 9 (all floor)	Complaints	Dr Subramanian 9789780967	Technical-Computer	Completed
262177	29/09/2021	Tech	NEC	NEC-EEE	LAN port problem in Faculty system	BLOCK 4 EEE FIRST FLOOR CC XI .ROOM NO 103	Complaints	RAMRAJ B-9790480188	Technical-Computer	Completed
262243	5/10/2021	Tech	NEC	NEC-EEE	PROJECTOR ROLLER PROBLEM	BLOCK IV - EEE DEPARTMENT- SECOND FLOOR-ROOM NO 202	Complaints	ARUNKUMAR V-8526333032	Technical-Computer	Completed
262431	20/10/2021	Tech	NEC	NEC-CSE	1.Class rooms not cleaned recurrently. 2.Block -3 â€ 304 Projector screen not available.	III rd- Year CSE	CCM	GUNASEKAR -9842712500	Technical-Computer	Completed
262460	20/10/2021	Tech	NEC	NEC-CSE	Block -3 â€ 304 Projector screen not available.	CLASSROOM-Block 3 â€ 304 (BY III YEAR CSE)	CCM	GUNASEKAR -9842712500	Technical-Computer	Completed
263076	25/11/2021	Tech	NEC	NEC-CSE	Need Wifi Connectivity with enough bandwidth to attend placement drives smoothly	FINAL YEAR CSE STUDENTS	CCM	GUNASEKAR -9842712500	Technical-Computer	Completed
263451	11/1/2022	Tech	NEC	NEC-IT	Projector screen is to fix	Block 3 Second Floor IT Lab	Complaints	SIVA C-9750680111 9894380895	Technical-Computer	Completed

TABLE B 9.3g Feedback and action taken report for Transport issues

SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
251467	30/10/2021	Tech	NEC	NEC-EEE	Students coming from long distance needs buses from their place of departure. Since only few buses are running now.	IV EEE Class (Transport)	CCM	SATHEESH A-9750722999	Transport	Completed
262426	20/10/2021	Tech	NEC	NEC-BME	Students come in college by college bus in only one day. But names are coming in fees bending list	block 1103	CCM	A K VELUSAMY - 9342999355	Transport	Completed
262476	28/10/2021	Tech	NEC	NEC-CHEM	Bus No 13; Full rush, no seats available to sit and students are standing in steps due to rush	TRANSPORT	CCM	A K VELUSAMY - 9342999355	Transport	Completed
262307	3/12/2021	Tech	NEC	NEC-MCA	Students said that standing in morning and evening while travelling.	ERODE BUS	CCM	SARAVANAN N-8670455664	Transport	Completed
262320	3/12/2021	Tech	NEC	NEC-ECE	more rush in bus.no.82	transport office	CCM	SARAVANAN N-8670455664	Transport	Completed
262321	3/12/2021	Tech	NEC	NEC-ECE	BUS FEES TOO HIGH AND NEED BUS TO AVOID MORE RUSH	TRANSPORT	CCM	A K VELUSAMY - 9342999355	Transport	Completed
262338	3/12/2021	Tech	NEC	NEC-BME	BUS NO. 54 - DURING RAINY SEASON, THE ROOF LEAKAGE	TRANSPORT	CCM	A K VELUSAMY - 9342999355	Transport	Completed
262354	3/12/2021	Tech	NEC	NEC-MECH	Bus No. 21, 31, 50 & 54 â€ Seat comfort and rain water is coming inside	TRANSPORT	CCM	SARAVANAN N-8670455664	Transport	Completed
263119	3/12/2021	Tech	NEC	NEC-EEE	1.More numbers of students occupied in Bus No 38,83,78,81,54,22 2.Bus Roof is not proper in all bus 3.Rash driving is in bus no 83 4.Faculties are occupying seats in bus number 54,55	transport	CCM	A K VELUSAMY - 9342999355	Transport	Completed
263122	3/12/2021	Tech	NEC	NEC-EEE	1.Bus Facility need to be extended for bus no 83 to Tamaripalayam. 2.No Lock facility in the Ladies rest room in EEE block 3.Power Socket problem in Block 4 306 4.Hostel Room need to be properly cleaned 5.Food not Proper. Drinking water facility not available 6.Hostel Fees Issues and refund need to be processed for not occupied days	transport,maintenance,Hostel	CCM	A K VELUSAMY - 9342999355	Transport	Completed
263134	10/12/2021	Tech	NEC	NEC-IT	Bus No.: 23 â€ Rain water leakage No bus facility for the place Chennampatti (anthiyur route)	Transport	CCM	A K VELUSAMY - 9342999355	Transport	Completed

TABLE B 9.3h Feedback and action taken report for cash counter issues



SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
240267	24/01/2020	Tech	NEC	NEC-MECH	Poor Response	Cash Counter	CCM	MURTHI M K-	Cash Counter	Completed
240326	23/01/2020	Tech	NEC	NEC-CHEM	Poor response from cash counter	Cash counter	CCM	Chemical Engineering 3942498882	Cash Counter	Completed
240334	23/01/2020	Tech	NEC	NEC-CHEM	Additional (un informed) fees collection	AD Office	CCM	Chemical Engineering 3942498882	Cash Counter	Completed
251468	12/2/2021	Tech	NEC	NEC-MBA	STUDENTS NEED FEES RECEIPT	II Year MBA (Office)	CCM	A K VELUSAMY - 9942999355	Cash Counter	Completed
					1.Cash counter timing can be extended for departments 2. Need of fees receipt printed format 3.Fees paid list shall be updated before circulation 4. Scholarship reduced fees list shall be circulated 5. Tuition fees pag date can be extended 6.Need of separate timing for students to meet AD					
251470	29/01/2021	Tech	NEC	NEC-MECH	Need receipt for fee	III Mech Class (Cash Counter, Office)	CCM	A K VELUSAMY - 9942999355	Cash Counter	Completed
251688	10/3/2021	Tech	NEC	NEC-AGRI		III Agri Class	CCM	A K VELUSAMY - 9942999355	Cash Counter	Completed
251706	10/3/2021	Tech	NEC	NEC-EEE	Having difficulty in paying placement fees due to the pandemic situation	IV EEE Class	CCM	A K VELUSAMY - 9942999355	Cash Counter	Not Possible
251709	11/3/2021	Tech	NEC	NEC-MBA	STUDENTS NEED FEES RECEIPT	II MBA	CCM	A K VELUSAMY - 9942999355	Cash Counter	Completed
262428	20/10/2021	Tech	NEC	NEC-BME	Students request to minimize the exam fees fine amount	block 1103	CCM	A K VELUSAMY - 9942999355	Cash Counter	Completed
					In the office cash section there is not proper response while paying fees.they are not giving the proper response to the students they are roaming the students to pay the fee					
263120	9/12/2021	Tech	NEC	NEC-EEE	Hot water not provided in the hostel	cashcounter & Hostel	CCM	A K VELUSAMY - 9942999355	Cash Counter	Completed

TABLE B 9.3i Feedback and action taken report for office issues

SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
240160	27/01/2020	Tech	NEC	NEC-MBA	Need fees receipt for tuition fees	Fees AD Office	CCM	DEVARAJ.N-6380452045	Office-work	Completed
240208	23/01/2020	Tech	NEC	NEC-EEE	Scholarship is received partially.	II - EEE	CCM	SATHEESH A-9750722999	Office-work	Completed
240310	23/01/2020	Tech	NEC	NEC-CHEM	ATM machine is not in working condition (mostly)	Institution	CCM	Chemical Engineering 3942498882	Office-work	Completed
240314	23/01/2020	Tech	NEC	NEC-CHEM	Need celebrations in college	Institution	CCM	Chemical Engineering 3942498882	Office-work	Completed
240737	25/02/2020	Tech	NEC	NEC-EEE	In office ,they are delaying issue of bonafide and fees receipts.	EEE-IV	CCM	SATHEESH A-9750722999	Office-work	Completed
240790	25/02/2020	Tech	NEC	NEC-CHEM	ATM machine is not in working condition (mostly)	CHEMICAL-I	CCM	Chemical Engineering 3942498882	Office-work	Completed
240806	25/02/2020	Tech	NEC	NEC-CHEM	ATM machine is not in working condition (mostly)	CHEMICAL-III	CCM	Chemical Engineering 3942498882	Office-work	Completed
251471	29/01/2021	Tech	NEC	NEC-MECH	Bonafide certificate shall be provided in one working day	III Mech Class (Office)	CCM	A K VELUSAMY - 9942999355	Office-work	Completed

TABLE B 9.3j Feedback and action taken report for Reception issues

SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
25021	2/2/2015	Tech	NEC	NEC-CVL	NAAC-Reception birds cage	A.O office front side	Complaints	SHYAM KUMAR.K-9787848344	Reception	Completed
240356	29/01/2020	Tech	NEC	NEC-CVL	RECEPTIONIST NOT RESPONDING PROPERLY. ALWAYS USING HARSH WORDS AND RUDE FACE	RECEPTION	CCM	MOHANRAJ E K-9842794011	Reception	Completed
240376	24/01/2020	Tech	NEC	NEC-CVL	RECEPTIONIST NOT RESPONDING PROPERLY TO PARENTS. ALWAYS USING HARSH WORDS AND RUDE FACE TO PARENTS.	RECEPTION	CCM	MOHANRAJ E K-9842794011	Reception	Completed
240390	24/01/2020	Tech	NEC	NEC-CVL	RECEPTIONIST NOT RESPONDING PROPERLY ALWAYS USING HARSH WORDS AND RUDE FACE .	RECEPTION	CCM	MOHANRAJ E K-9842794011	Reception	Completed
251473	29/01/2021	Tech	NEC	NEC-MECH	Expecting decent response from reception	IV Mech Class (Reception)	CCM	A K VELUSAMY - 9942999355	Reception	Completed
251477	30/01/2021	Tech	NEC	NEC-EEE	RECEPTION-RESPONSE IS NOT PROPER	IEEE Class (Reception)	CCM	A K VELUSAMY - 9942999355	Reception	Completed

TABLE B 9.3k Feedback and action taken report for new requirements



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SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
239850	20/01/2020	Tech	NEC	NEC-EEE	WINDOW SCREEN HAS TO BE FITTED PROPERLY- INOS	BLOCK IV-EEE DEPARTMENT- SECOND FLOOR-ROOM NO 202	Complaints	ARUNKUMAR V-8526333032	New Requirement	Completed
240247	24/01/2020	Tech	NEC	NEC-MECH	Need drinking water in ground floor	Block-T ground floor	CCM	MURTHI M K-	New Requirement	Completed
240263	24/01/2020	Tech	NEC	NEC-MECH	Need drinking water in ground floor.	Block-T-II Mech A Class	CCM	MURTHI M K-	New Requirement	Completed
240274	24/01/2020	Tech	NEC	NEC-MECH	Need water purifier in ground floor	Block-T-Ground floor	CCM	MURTHI M K-	New Requirement	Completed
240282	24/01/2020	Tech	NEC	NEC-MECH	First aid box: materials not available	Block-T-III Mech A&B Class	CCM	MURTHI M K-	New Requirement	Completed
240285	24/01/2020	Tech	NEC	NEC-MECH	Additional drinking water facility needed.	Block-7	CCM	MURTHI M K-	New Requirement	Completed
240303	24/01/2020	Tech	NEC	NEC-MECH	Need Drinking water in ground floor and second floor	Block-7	CCM	MURTHI M K-	New Requirement	Completed
240710	10/3/2020	Tech	NEC	NEC-MECH	change powerline in TV Room	block7 205 Class Room	Complaints	MURTHI M K-	New Requirement	Completed
240735	25/02/2020	Tech	NEC	NEC-EEE	need window screen.	EEE-IV	CCM	SATHEESH A-3750722393	New Requirement	Completed
251324	6/2/2021	Tech	NEC	NEC-EEE	NEED TWO SLIDING DOOR FOR WINDOW IN STAFF CABIN	BLOCK IV-EEE DEPARTMENT- THIRD FLOOR-ROOM NO 303	New Requirements	ARUNKUMAR V-8526333032	New Requirement	Completed
251447	18/02/2021	Tech	NEC	NEC-EEE	NEED A NEW PRINTER FOR DEPT OF EEE	BLOCK IV-EEE DEPARTMENT- FIRST FLOOR-ROOM NO 101	New Requirements	ARUNKUMAR V-8526333032	New Requirement	Completed
262946	9/12/2021	Tech	NEC	NEC-MECH	Need PROJECTOR	II MECH A	CCM	A K VELUSAMY - 3342333355	New Requirement	Completed
263453	11/1/2022	Tech	NEC	NEC-MECH	White Board with Stand	Shed Number 1, PG CAD Lab, Ground Floor	New Requirements	MrMANIKANDAN M-3642837854	New Requirement	Completed
263455	11/1/2022	Tech	NEC	NEC-MECH	LCD Projector (1Nos) along with Projector Short Throw Wall Mount.	PG CAD Lab, Shed Number 1, Ground Floor.	New Requirements	MrMANIKANDAN M-3642837854	New Requirement	Completed
263458	11/1/2022	Tech	NEC	NEC-MECH	Wall mounted pedestal fan required (3nos)	PG CAD Lab, Shed Number 1, Ground Floor.	New Requirements	MrMANIKANDAN M-3642837854	New Requirement	Completed
263459	11/1/2022	Tech	NEC	NEC-MECH	Fire Extinguisher (1nos)	PG CAD Lab, Shed Number 1, Ground Floor.	New Requirements	MrMANIKANDAN M-3642837854	New Requirement	Completed
263460	11/1/2022	Tech	NEC	NEC-MECH	First Aid Wooden Box Required (1Nos)	PG CAD Lab, Shed Number 1, Ground Floor.	New Requirements	MrMANIKANDAN M-3642837854	New Requirement	Completed
263597	15/02/2022	Tech	NEC	NEC-MECH	1Table painting	Thermal Engineering Lab-1(shed-8)	Complaints	Balukrishnan S - 9578498736	New Requirement	Completed

TABLE B 9.3l Feedback and action taken report for mess issues

SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
240092	24/01/2020	Tech	NEC	NEC-AGRI	Need to change food menu	Girls Hostel	CCM	GIRLS - SASIKALA 9095292168	Mess	Completed
240093	24/01/2020	Tech	NEC	NEC-AGRI	Do not follow food time table properly.	Girls & Boys Hostel	CCM	GIRLS - SASIKALA 9095292168	Mess	Completed
240115	24/01/2020	Tech	NEC	NEC-AGRI	Hostel Food is insufficient in boys hostel.	NRI 2 Hostel	CCM	NRI 2 -MUTHUPANDIAN - 9942216805	Mess	Completed
240116	24/01/2020	Tech	NEC	NEC-AGRI	Food is not tasty.		5 CCM	NRI 2 -MUTHUPANDIAN - 9942216805	Mess	Completed
240172	23/01/2020	Tech	NEC	NEC-IT	Biriyani was not provided(22/1/2020) not following the menu	Girls hostel	CCM	GIRLS - SASIKALA 9095292168	Mess	Completed
240202	23/01/2020	Tech	NEC	NEC-IT	Not following the menu. Need more no. of chapathi	Girls hostel	CCM	GIRLS - SASIKALA 9095292168	Mess	Completed
240251	24/01/2020	Tech	NEC	NEC-MECH	Food supplied slowly around 8.30	girls hostel	CCM	GIRLS - SASIKALA 9095292168	Mess	Completed
240291	24/01/2020	Tech	NEC	NEC-MECH	Food is not provided in new menu wise	NRI 2 Hostel	CCM	NRI 2 -MUTHUPANDIAN - 9942216805	Mess	Completed
240292	24/01/2020	Tech	NEC	NEC-MECH	Labours are not working in mess Quality of food to be maintained.	NRI2 hostel	CCM	NRI 2 -MUTHUPANDIAN - 9942216805	Mess	Completed
240774	24/02/2020	Tech	NEC	NEC-EEE	Dosa, Idly & Chappathi must be cooked well.	HOSTEL	CCM	SATHEESH A-9750722393	Mess	Completed

TABLE B 9.3m Feedback and action taken report for electrical and carpenter works



263034	16/12/2021	Tech	NEC	NEC-MECH	Tube light not working (Count 1)	Block 7 - Second floor - Room No. 210	Complaints	MURUGAPANDIAN G S-9788283108	Electrical work	Completed
263035	16/12/2021	Tech	NEC	NEC-MECH	Window screen cloths are damaged (Count 2) and window screen pipe are damaged (Count 1)	Block 7 - Second floor - Room No. 210	Complaints	MURUGAPANDIAN G S-9788283108	Carpenter	Completed
263148	24/12/2021	Tech	NEC	NEC-MECH	TUBE LIGHT - 2 Nos.	BLOCK 7, GROUND FLOOR, MECHATRONICS LAB	Complaints	MOHAMED AJMAL MAHASIN M-9344166786	Electrical work	Completed
263456	11/11/2022	Tech	NEC	NEC-MECH	Wooden Board (20Nos) is need to fix in the Computer Table, Size of the wooden board (0.5 feet of height and 1 feet of long)	PG CAD Lab, Shed Number 1, Ground Floor	New Requirements	MrMANKANDAN M-9842837854	Carpenter	Completed
263461	11/11/2022	Tech	NEC	NEC-MECH	AC not working (power supply need to provide)	PG CAD Lab, Shed Number 1, Ground Floor	Complaints	MrMANKANDAN M-9842837854	Electrical work	Completed
263702	23/02/2022	Tech	NEC	NEC-MECH	1.AC not working(shed 1)	shed 1(PG cad lab NCT principal room opposite)	MAINTENANCE	EASWARAMOORHTI M-9842013355	Electrical work	Completed
263703	23/02/2022	Tech	NEC	NEC-MECH	1.AC not working(shed 1)	shed 1(PG cad lab NCT principal room opposite)	MAINTENANCE	EASWARAMOORHTI M-9842013355	Electrical work	Completed
263782	5/3/2022	Tech	NEC	NEC-MECH	seperate electrical switch control for PG CAD Lab	shed number 1, Ground floor	New Requirements	MrMANKANDAN M-9842837854	Electrical work	Completed
263865	15/03/2022	Tech	NEC	NEC-MECH	THERMAL LAB SHEAT NO 8 1.BOILGR MACHINE WATER LEAKAGE 2.HAIR BLOWER MACHINE -EP LINE PROBLEM	THERMAL LAB SHEAT NO 8	Complaints	Balakrishnan S - 9578498736	Electrical work	Completed
263866	15/03/2022	Tech	NEC	NEC-MECH	1.UPS BOX CHANGE	SHEAT NO 1	New Requirements	EASWARAMOORHTI M-9842013355	Electrical work	Completed
263881	19/03/2022	Tech	NEC	NEC-EEE	FUSED TUBELIGHT HAS TO BE REPLACED-1 NOS	BLOCK IV-EEE DEPARTMENT- SECOND FLOOR-ROOM NO 202	Complaints	ARUNKUMAR V-8526333032	Electrical work	Completed
263882	19/03/2022	Tech	NEC	NEC-EEE	FUSED TUBELIGHT HAS TO BE REPLACED-2NOS	BLOCK IV-EEE DEPARTMENT-THIRD FLOOR-ROOM NO 301	Complaints	ARUNKUMAR V-8526333032	Electrical work	Completed
263883	19/03/2022	Tech	NEC	NEC-EEE	FUSED TUBELIGHT HAS TO BE REPLACED-1 NOS	BLOCK IV-EEE DEPARTMENT-THIRD FLOOR-ROOM NO 306	Complaints	ARUNKUMAR V-8526333032	Electrical work	Completed
263884	19/03/2022	Tech	NEC	NEC-EEE	FUSED TUBELIGHT HAS TO BE REPLACED -1 NOS	BLOCK IV-EEE DEPARTMENT-THIRD FLOOR-ROOM NO 307	Complaints	ARUNKUMAR V-8526333032	Electrical work	Completed
263885	19/03/2022	Tech	NEC	NEC-EEE	FAN ROTATING SLOWLY-NEED TO CHANGE THE CAPACITOR	BLOCK IV-EEE DEPARTMENT - FOURTH FLOOR-STAFF ROOM - 406A	Complaints	ARUNKUMAR V-8526333032	Electrical work	Completed
263986	28/03/2022	Tech	NEC	NEC-EEE	NEED TO CHANGE THE CAPACITOR OF THE FAN-10 NO	BLOCK-4-EEE DEPARTMENT, 4TH FLOOR STAFF CABINS	Complaints	ARUNKUMAR V-8526333032	Electrical work	Completed

TABLE B 9.3n Feedback and action taken report for maintenance work

262570	19/11/2021	Tech	NEC	NEC-EEE	NEED TO FIT THE ALUMINIUM PARTITION PROPERLY-2NOS	BLOCK II-EEE DEPARTMENT- GROUND FLOOR-MACHINES LAB	Complaints	ARUNKUMAR V-8526333032	Maintenance	Completed
262572	19/11/2021	Tech	NEC	NEC-EEE	NEED TO REPLACE THE DAMAGED S TYPE CHAIR-6 NOS	BLOCK IV-EEE DEPARTMENT-THIRD FLOOR	Complaints	ARUNKUMAR V-8526333032	Maintenance	Completed
262655	25/11/2021	Tech	NEC	NEC-EEE	NEED TO WELD THE BROKEN STEPS SUPPORT ROD	BLOCK IV-EEE DEPARTMENT FOURTH FLOOR-STAIRCASE	Complaints	ARUNKUMAR V-8526333032	Maintenance	Completed
262861	3/12/2021	Tech	NEC	NEC-MECH	Window screen cloth damaged (Count 4)	Block 7 (First floor - Room No. 102)	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262864	3/12/2021	Tech	NEC	NEC-MECH	Screen cloth damaged (Count 3)	Block 7 (First floor - Room No. 104)	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262868	3/12/2021	Tech	NEC	NEC-MECH	Window fram dsmaqed (Count 1)	Block 7 (First floor - Room No. 103)	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262870	3/12/2021	Tech	NEC	NEC-MECH	Window screen dsmaqed (Count 3)	Block 7 (First floor - Room No. 105)	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262871	3/12/2021	Tech	NEC	NEC-MECH	Window dsmaqed (Count 1)	Block 7 (First floor - Room No. 102)	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262874	3/12/2021	Tech	NEC	NEC-MECH	Window screen dsmaqed (Count 5)	Block 7 (First floor - Room No. 106)	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262878	3/12/2021	Tech	NEC	NEC-MECH	Window dsmaqed and not working	Block 7 (First floor - Room No. 108) staff cabin	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262879	3/12/2021	Tech	NEC	NEC-MECH	Window screen dsmaqed (Count 5) and Window pipe dsmaqed (Count 2)	Block 7 (First floor - Room No. 108) staff cabin	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262880	3/12/2021	Tech	NEC	NEC-MECH	Window screen dsmaqed (Count 6) and window pipe dsmaqed (Count 2)	Block 7 (First floor - Room No. 110) staff cabin	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262893	10/12/2021	Tech	NEC	NEC-MECH	Window screen not working (Count 5)	Block 7 - Ground floor - CAB/CAM Lab	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262897	10/12/2021	Tech	NEC	NEC-MECH	Need system rolling chair services	Block 7 - Ground floor - CAB/CAM Lab	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262900	10/12/2021	Tech	NEC	NEC-MECH	Window glasses dsmaqed (Count 2)	Block 7 - Ground floor - Mechatronics Lab Room No. 007	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
262950	3/12/2021	Tech	NEC	NEC-MECH	Excess chlorine is added in drinking water	MECHANICAL BLOCK	CCM	A K VELUSAMY - 9942993355	Maintenance	Completed
262951	3/12/2021	Tech	NEC	NEC-MECH	Need cleaning regularly	MECHANICAL II YEAR (Fuel cell lab)	CCM	SENTHIL NATHAN-9842837665	Maintenance	Completed
263011	16/12/2021	Tech	NEC	NEC-MECH	Window lock dsmaqed (Count 3)	Block 7 - Ground floor - Room. No 008	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed
263012	16/12/2021	Tech	NEC	NEC-MECH	Window dsmaqed (Count 3)	Block 7 - Ground floor - Room. No 008	Complaints	MURUGAPANDIAN G S-9788283108	Maintenance	Completed

TABLE B 9.3o Feedback and action taken report for plumbing work



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SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
251054	10/2/2021	Tech	NEC	NEC-EEE	WATER IS LEAKING FROM THE FOURTH FLOOR WASHBASIN TO GENTS REST ROOM IN THIRD FLOOR	BLOCK IV- EEE DEPARTMENT- THIRD FLOOR-GENTS REST ROOM	Complaints	ARUNKUMAR V-8526333032	Plumbing work	Completed
251463	30/01/2021	Tech	NEC	NEC-EEE	Drinking water tap is not working	IV EEE [Block 4 Near Final Year class]	CCM	SATHEESH A-9750722999	Plumbing work	Completed
251712	15/03/2021	Tech	NEC	NEC-EEE	Need to replace the broken outlet pipe of the washbasin sink	BLOCK IV-EEE DEPARTMENT- THIRD FLOOR-ROOM NO 304	Complaints	ARUNKUMAR V-8526333032	Plumbing work	Completed
251731	19/03/2021	Tech	NEC	NEC-EEE	Wash Basin outlet pipe has been broken in ladies toilet	BLOCK IV-EEE DEPARTMENT- SECOND FLOOR-LADIES REST ROOM	Complaints	ARUNKUMAR V-8526333032	Plumbing work	Completed
251819	27/04/2021	Tech	NEC	NEC-EEE	NEED TO CLAMP THE WATER PIPE ON THE WALL	BLOCK IV-EEE DEPARTMENT- FIRST FLOOR-CORRIDOR	Complaints	ARUNKUMAR V-8526333032	Plumbing work	Completed
262134	27/09/2021	Tech	NEC	NEC-EEE	WATER IS LEAKING FROM THE FOURTH FLOOR WASHBASIN TO GENTS REST ROOM IN THIRD FLOOR	BLOCK IV-EEE DEPARTMENT- THIRD FLOOR-GENTS REST ROOM	Complaints	ARUNKUMAR V-8526333032	Plumbing work	Completed
262568	19/11/2021	Tech	NEC	NEC-EEE	NEED TO FIT THE TUBE IN URINARY BOWL-TINDS	BLOCK IV-EEE DEPARTMENT- THIRD FLOOR-GENTS TOILET -308	Complaints	ARUNKUMAR V-8526333032	Plumbing work	Completed
262882	9/12/2021	Tech	NEC	NEC-MECH	Tank of cistern in western toilet not working	Block 7 (First floor - Gents toilet)	Complaints	MURUGAPANDIAN G S-9788283108	Plumbing work	Completed
262883	9/12/2021	Tech	NEC	NEC-MECH	Wash basin tap not working (Count 3) Change the wash basins inform of ladies toilet to another place in the same floor	Block 7 (First floor) in front of gents toilet	Complaints	MURUGAPANDIAN G S-9788283108	Plumbing work	Completed
263036	16/12/2021	Tech	NEC	NEC-MECH	Water leak age in toilet tap	Block 7 - Second floor	Complaints	MURUGAPANDIAN G S-9788283108	Plumbing work	Not Possible
263750	2/3/2022	Tech	NEC	NEC-MECH	Water leak age in toilet tap	Block 7 - First floor - Gents Toilet	Complaints	MURUGAPANDIAN G S-9788283108	Plumbing work	Completed
263886	19/03/2022	Tech	NEC	NEC-EEE	WATER LEAKING THROUGH PIPE FROM FOURTH FLOOR TO THIRD FLOOR GENTS REST ROOM	BLOCK IV-EEE DEPARTMENT- THIRD FLOOR-GENTS REST ROOM	Complaints	ARUNKUMAR V-8526333032	Plumbing work	Completed
264322	22/04/2022	Tech	NEC	NEC-EEE	WATER IS NOT COMING IN THE LADIES RESTROOM AND WASHBASIN SINK	BLOCK IV- EEE DEPARTMENT- SECOND FLOOR-LADIES REST ROOM	Complaints	ARUNKUMAR V-8526333032	Plumbing work	Completed

SNo	Date	campus	Institution	Department	Facility	Location	Category	Staff Name	work nature	Work Status
240287	24/01/2020	Tech	NEC	NEC-MECH	Bike parking - Security needed	Inside college	CCM	MURTHI M K-	Security	Completed
240336	23/01/2020	Tech	NEC	NEC-CHEM	Safety issues in students two wheeler stand	Security	CCM	Chemical Engineering 9942498882	Security	Completed
240799	25/02/2020	Tech	NEC	NEC-CHEM	Securities at NEC gate should behave with respect to students	CHEMICAL-II	CCM	Chemical Engineering 9942498882	Security	Completed
240805	25/02/2020	Tech	NEC	NEC-CHEM	Safety issues in students two wheeler stand	CHEMICAL-III	CCM	Chemical Engineering 9942498882	Security	Completed

TABLE B 9.3p Feedback and action taken report on Security



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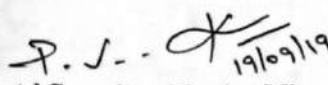
NANDHA EDUCATIONAL INSTITUTIONS HOSTEL COMMITTEE MEETING MINUTES-NRI II

Ref. No: NEI / HCM /2019-20/02

Date: 19.09.19

The Second hostel committee meeting for the NRI-II HOSTEL was conducted on 18.09.2019 (Wednesday) at 5.00Pm in Hostel mess, headed by the committee chair chairperson Dr. C.N.Marimuthu, Dean/R&D. The Warden and Deputy Wardens had attended the meeting along with the student representatives of the NRII Hostel. The following points were discussed in the meeting.

S.NO	Student Complaints	Committee Solutions
1	Need to provide additional water heater for bathing in each floor.	After discussion with Management and material manager, this facility will be provided.
2	Rooms and Bathrooms are not cleaned properly.	Maintenance workers will be insisted to clean the bathrooms properly. Warden should monitor the same
3	Bathroom door lock complaint in 3 rd floor.	Maintenance (carpentry) work will be carried out immediately.
4	Insects problem in hostel.	Pest control measures will be taken immediately.
5	Need big dustbins and Floor mats in all floors.	After discussion with A.O and Maintenance Manager, it will be provided.
6	Staircase grill need to be painted.	After discussion with A.O and Maintenance Manager, painting work will be carried out.
7	In few rooms, window glass to be replaced.	Window glass replacement work will be carried out shortly.
8	R.O water points for drinking needs to be placed in all floors.	Water points will be provided in all the floors.
9	Water doctor need to be cleaned periodically.	Water doctor will be cleaned weekly once. Warden will ensure the completion of work.
10	Frequently power cut in the first floor	Electrical complaints will be rectified immediately.


 19/09/19
Hostel Committee Meeting Minutes In charge

Mr.P.Vinokumar. NRI-II

ASP/ECE

Copy To:.

1. The File
2. The CEO, Nandha Educational Institutions.
3. The Secretary, Nandha Educational Institutions.
4. The Principal, Nandha Engineering
5. The AO, Nandha Tech Campus.

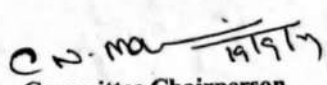

 19/09/19
Committee Chairperson
 Dr.C.N.Marimuthu,DEAN/R&D

TABLE B 9.3p Feedback and action taken report on Hostel Committee meeting



NANDHA

ENGINEERING COLLEGE (Autonomous)

Feedback through Grievance Redressal Cell

Grievance Redressal Cell was started in the year 2014. At the beginning, Oral and written complaints were received in person. During the lunch hours, coordinator was available at the Grievance Cell to receive complaints. Students are given freedom to express their Grievances related to Academic and non-Academic.

In the year 2015, suggestion boxes were kept at all the Department to collect the complaints. In the year 2018, it is decided to get the complaints from the Students, Alumni, Parents, Faculty and other staff through online mode. This information was passed to student by sticking a paper in suggestion boxes in all the departments and displaying a Flex Board on near Principal Office.

URL : <http://www.nandhaengg.org/grievance>

The coordinator will monitor the complaints on the website and arranges a meeting for grievance Redressal committee members. In the meeting, complaints were discussed by committee members and action was taken. Once complaint is redressed, it is updated in website.



Grievance Redressal Committee



SRI NANDHA EDUCATIONAL TRUST was established in 1992 with the conscious efforts of Thiru. VSHANMUGAN, B.Com., an eminent professional cum industrialist and a philanthropist par excellence. He is a leader with foresight and integrity. His vision is to enrich education, to promote the interests of students in rural areas, to offer them easy access of quality higher education and to build confidence in them to prove their realm of success. The trust functions with Thiru. VSHANMUGAN, B.Com., as Chairman cum Managing Trustee and his family members as trustees, thereby sharing the commitment in the pursuit of excellence in all things as a life-long endeavour. It is due to extraordinary vision, enthusiasm and forethought of our chairman, the trust could establish many institutions in a short period. Nandha Engineering College is one of the top 5 engineering colleges in Erode, Tamilnadu.



NANDHA

ENGINEERING COLLEGE (Autonomous)

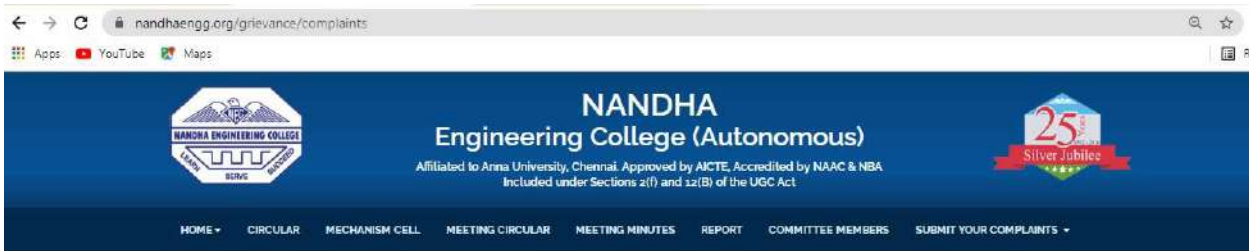
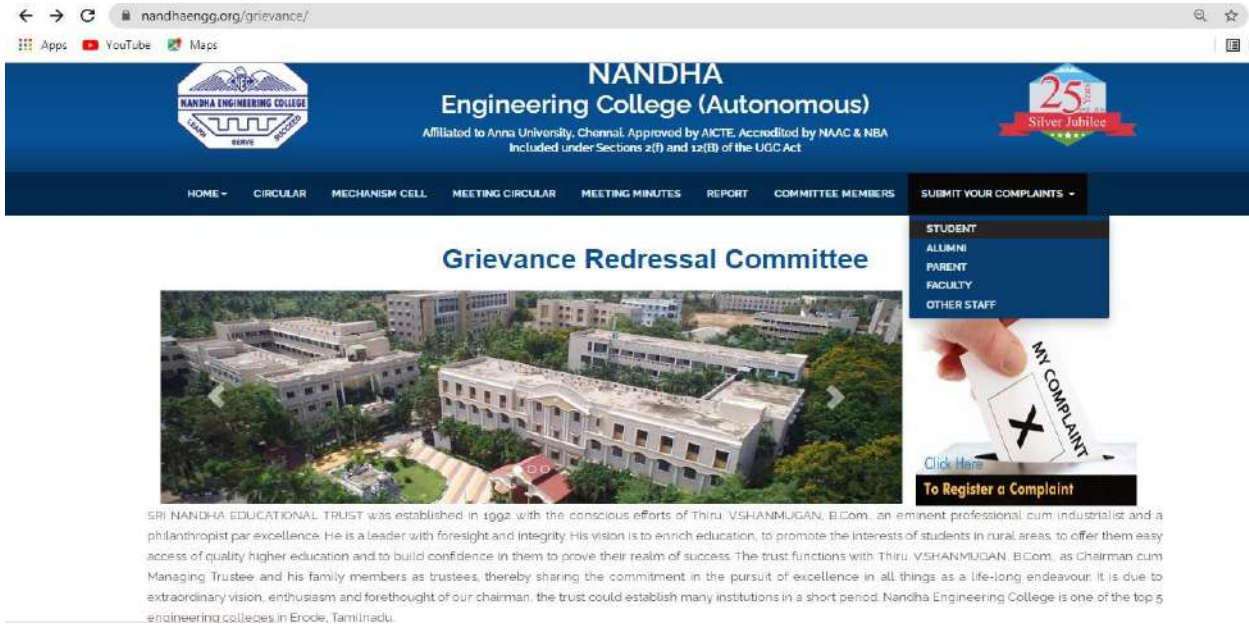


FIGURE B 9.2.2r Student complaint process





NANDHA ENGINEERING COLLEGE (Autonomous)

Affiliated to Anna University Chennai * Approved by AICTE * Accredited by NBA-New Delhi
Pitchandampalayam (P.O), Vaikkalmedu , Erode-Perundurai Road, ERODE –638 052.
Phone: 04294-225585, 223711, 223722, 226393, Fax: 04294-224787



Website : www.nandhaengg.org

E.Mail: info@nandhaengg.org

Dr. N.Rengarajan , B.Sc., B.Tech.,M.E.,Ph.D.
PRINCIPAL

NEC/Cir/2019-20/764

Date: 05.02.2020

Time : 12.30 AM

CIRCULAR

Classification	ROUTINE	√ IMMEDIATE
Academic	Originator : PRINCIPAL	Circulated to : Deans and HODs

Sub: Grievance Redressal - Reg.

This is to inform that Grievance Redressal Mechanism has been formulated in our college in order to register the grievances online. The link and the committee members of the Grievance Redressal Mechanism have been displayed near the Principal's office. All the Students and Staff members are asked to refer the same for further details.

Register your Grievances @ URL : nandhaengg.org/grievance

Members Name	Email-id	Position
Dr. N. Rengarajan	principal@nandhaengg.org	Chairperson
Dr. P. Jamuna / EEE	jamuna.ponnusamy@nandhaengg.org	Convener
Mr. A.K.Velusamy / AO	aotechcampus@nandhainstitutions.org	Member
Dr. Saraladevi / ENG	headenglish@nandhaengg.org	Member
Mr. C.Mani / CSE	mani.chinasamy@nandhaengg.org	Member
Ms. C.Navamani / CSE	navamani.chinnasamy@nandhaengg.org	Member
Mr. S.Muruganantham/MECH	muruganantham.somasundaram@nandhaengg.org	Member


PRINCIPAL

Copy To:

- All Deans' & HoDs for circulation among all students & faculty circulation.

FIGURE B 9.2.2s Members of Grievance Redressal Cell



NANDHA

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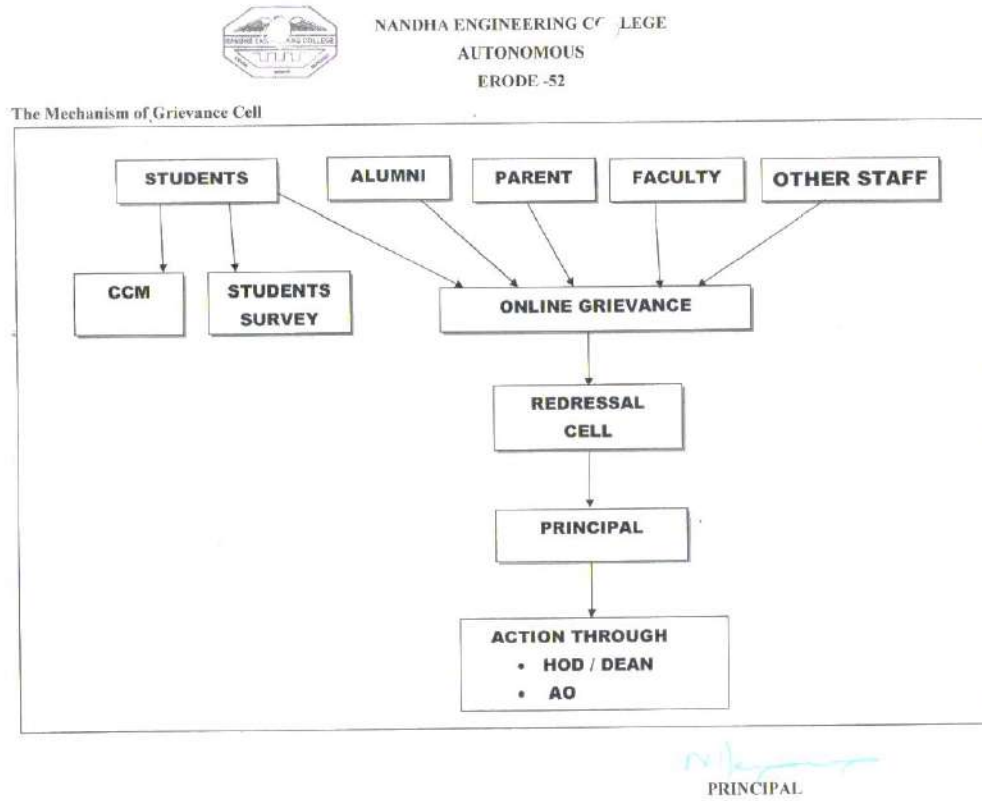



FIGURE B 9.2.t Grievances collection process


 NANDHA ENGINEERING COLLEGE
 (An Autonomous Institution affiliated to Anna University Chennai and
 Approved by AICTE, New Delhi)
 Pitchandampalayam, Erode To Perundurai Road, Erode-638 052

Grievance Cell Meeting

Venue	Grievance Cell
Date & Time	3/19/2021, 1p.m.
Members attended:	Dr. N. Rengarajan Dr. P. Jamuna / EEE Mr. A.K.Velusamy / AO Dr. Saraladevi / ENG Mr. C.Mani / CSE Ms. C.Navamani / CSE Mr. S.Muruganatham/MECH

➤ The Complaint(s) received are as follows:

Variety of fresh juice can be provided at the canteen.

➤ Action Taken :

This issue is discussed with A.O.


 PRINCIPAL

FIGURE B 9.2.2u Grievance Cell Meeting



NANDHA

ENGINEERING COLLEGE (Autonomous)



NANDHA ENGINEERING COLLEGE, ERODE-52

(Autonomous)

GRIEVANCE REDRESSAL CELL

CIRCULAR

Date :18-Mar-21

The Grievance Redressal Committee meeting will be held on 19-Mar-21 at 1.00 pm. All the Committee Members are requested to attend the Meeting in the Block III Grievance Redressal Cell Positively.

P. Jamuna
Convener
18/3/21

S.No	Member Name	Signature
1	Dr. N.Rengarajan	
2	Dr.P.Jamuna (EEE)	
3	Mr. A.K.Velusamy (AO)	
4	Dr.V. Saraladevi (ENG)	
5	Mr. C.Mani (CSE)	
6	Ms. C.Navamani (CSE)	
7	Mr. S.Muruganantham (MECH)	

FIGURE B 9.2.2v Grievance Cell Circular

Name	Type	Department	Status	Year	Complaints	Date	Completed Date	Action Taken
Student	Electrical & Electronics	Completed	Third Year	variety of fresh juice can be provided at the canteen.	17 - March - 2021	29 - March - 2021	variety of fresh juice are provided as asked.	
Student	Mechanical	Completed	Second Year	need to change the menu in lunch	12 - March - 2021	23 - March - 2021	Menu Changed	

FIGURE B 9.2.2w Action Taken Report



NANDHA

ENGINEERING COLLEGE (Autonomous)

9.4 Self Learning

(5)

Self-Assessment (5)

The academic performance of the student is enhanced through self-learning and learning beyond syllabus. The institute has framed curriculum and regulations in such a way that the open elective and self study courses are introduced as per choice based credit system (CBCS). Institute provides Library facility, Internet facilities, online journals subscription, online database and digital videos, Webinars, Podcast, MOOCs, etc. The following provisions are given in the regulations to promote self-learning.

A student can opt a course (maximum of two courses) under Self-Study mode (Preferably from 7th semester), which may be either an Open Elective (OE) or a Programme Specific Elective (PSE) on specific approval of committee constituted by the Chairman Academic council provided the student has CGPA of 7.5 & above, with no standing arrears.

The students shall study on their own under the guidance of a faculty member approved by the Head of the Department who will be responsible for the periodic monitoring and evaluation of the course. The facilities are

1. Digital library service with e-book and online journals
2. High speed internet facility for NPTEL online course
3. Digital videos, MOOCs, Podcast, Webinars
4. Centre for Innovation and Product Development (CiPD)
5. Centre of Excellence

9.4.1 Library facility:

Nandha Engineering Central Library (NECL) is fully automated and specially designed to motivate the learning experience of faculty members and students community. It functions in three storied building with an area of 1080 square feet. The collection of Library books has reached around 59145 volumes related to Computer Science and Engineering, Electrical, Electronics and Communication, Mechanical, Civil, Chemical, Agriculture, Biomedical Engineering and Business Administration. Library has been subscribing 235 International and National print journals for periodical section along with 80 technical magazines and 6 dailies.

A 50 inch TV is installed along with Doordharsan dish to telecast 32 educational channels launched by Swayam Prabha, for supporting Massive Open Online Course (MOOC) facility in the Periodical Section. The air-conditioned digital library is implemented with 32 desktop systems and



NANDHA

ENGINEERING COLLEGE (Autonomous)

20 Laptops usable desk for accessing 200 IEEE, 2952 JGate, and 235 DELNET Proquest online journals, 8820 e-books, 31,535 Audio Visual courses and 9202 Conference Proceedings with back volumes. It can be accessed inside the campus on 24X7 basis via Wi-Fi. There are 2895 e-Books, 842 e- Journals and e-Magazines as CDs, DVDs and VCDs. It also includes more than 292 NPTEL courses for teaching and learning purposes. The library has a unique website which has been designed with the help of free accessible online open source like books, journals, magazines, career and skill development, projects, scholarships, competitive exam portals etc. by providing links. A Whatsapp group has been created for faculty members to deliver e-books, new arrivals, news clippings like article, educational reports, college news etc.

The library has 18 years digitalized question papers which is being send to faculty members and student community as per their request through mail ID. The library has procured unavailable and rare books by using membership with Developing Library Network (DELNET). Online Public Access Catalogue (OPAC) facility is available to facilitate online search of library sources by giving keywords like Title, Author, and Publisher etc. Circulation section includes issue, return and renewal by the users using their Identity card. Bar coding technology has been mapped with every user's Identity card and also with library software to speed up the circulation process. The accessing time of Library sources is from 9.00 am to 7.00 pm on all working days.

TABLE B 9.4.1a Department Library details

S.NO	PROGRAMME	BOOKS		JOURNALS (Print)	
		TITLE	VOLUME	NATIONAL	INTER NATIONAL
1	Computer Science and Engineering	1248	4745	6	6
2	Information Technology	1032	3651	6	6
3	Electrical and Electronics Engineering	1363	5437	6	6
4	Electronics and Communication Engineering	1596	6018	6	6
5	Mechanical Engineering	1757	6305	6	6
6	Civil Engineering	866	3741	6	6



7	Electronics and Instrumentation Engineering	600	2763	0	0
8	Agriculture	254	905	6	6
9	Chemical Engineering	325	1189	6	6
10	Biomedical Engineering	251	784	6	6
11	M.E – CSE	503	1723	6	6
12	M.E – EST	259	1078	6	6
13	M.E – ED	328	1299	6	6
14	M.E – VLSI	212	958	6	6
15	M.E – Structural Engineering	194	891	6	6
	Total (Engineering and Technology)	10788	41487	80	80
16	Science and Humanities	4110	7202	0	6
17	M.B.A	2759	6922	6	6
18	M.C.A	1383	5533	6	6
	TOTAL	19040	61144	92	98

9.4.2 NPTEL online course

Students are encouraged to enroll for NPTEL courses and acquire knowledge pertaining to the domain. Course exemption will be offered depending upon the credits.

NPTEL online course details are shown below

TABLE B 9.4.2a NPTEL Course details

Academic Year	NPTEL Course completed
2017-2018	3
2018-2019	46
2019-2020	329
2020-2021	31
2021-2022	66



TABLE B9.4.2b Sample of NPTEL Course exemption

S.No	Reg. No.	Name of Student	PL/NPL	ONE CREDIT COURSE			PSE COURSE	NPTEL COURSE	TOTAL CREDITS			Semester VI				Semester VII		Total		
				OPEN ELECTIVE	PSE	OT			ELIGIBLE IN (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)	ELIGIBLE IN (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)	ELIGIBLE IN (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)	ELIGIBLE IN (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)	ELIGIBLE IN (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)	ELIGIBLE IN (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)	ELIGIBLE IN (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12)					
				A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1			A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1		A+ 1 B+ 1 B 1	A+ 1 B+ 1 B 1
30	18EC031	KIRUTHIKA B	NPL		A+ 1						A 3	31	A	A	A	Eligible	NA	*	Eligible	7+2
31	18EC032	LAKSHMI PRABHA S	PL	A+ 1	B+ 1	B 1	B+ 1	B+ 1			B+ 3	33	A	A+	Eligible	NA	Eligible	*	Eligible	6+3
32	18EC033	LAVANYA M	PL	A+ 1	B 1	B 1					A+ 3	30	A	A	A	NA	A	Eligible	Eligible	6+3
33	18EC034	LITHANYA P	NPL	A+ 1	A+ 1	A 1						27	O	O	O	O	NA	*	Eligible	7+2
34	18EC035	LOGESHWARI S	PL	O 1	A+ 1	B+ 1	A+ 1				A+ 3	33	A+	A+	Eligible	NA	Eligible	*	Eligible	6+3
35	18EC036	LOGU SENTHUR S	NPL		A+ 1							25	A	A	O	A	NA	*	√	7+2
36	18EC037	MADHUMITHA G S	PL	O 1	B+ 1	B 1						27	A	O	A	NA	A	*	Eligible	6+3
37	18EC038	MATHIYALAGAN S	PL	A+ 1	A 1	B 1	B+ 1				A 3	33	A	A+	Eligible	NA	Eligible	*	Eligible	6+3
38	18EC039	MENAGA N	NPL		B 1							25	O	A+	O	A+	NA	*	√	7+2
39	18EC040	MIDHUNA R	PL	A+ 1	A+ 1	B+ 1	B+ 1				A 3	33	A	A+	Eligible	NA	Eligible	*	Eligible	6+3
40	18EC041	MIRUDHULA V	PL	AB 0	B+ 1			A 3			A 3	31	A	O	Eligible	NA	Eligible	*	√	6+3
41	18EC042	MOHAMED ASIF K	PL	A+ 1	A+ 1	B+ 1	O 3				A 3	33	A+	A+	Eligible	NA	Eligible	*	Eligible	6+3
42	18EC043	MYTHURIKADEVI S	NPL	A+ 1	A+ 1	B 1					A+ 3	30	O	O	O	O	NA	Eligible	Eligible	7+2
43	18EC044	NAGAARJUN S	PL		B+ 1							25	A+	A	A+	NA	A	*	√	6+3
44	18EC045	NANDHAKUMAR P	PL	A+ 1	A+ 1	B+ 1						27	A+	A	A	NA	A	*	Eligible	6+3
45	18EC046	NANDHU S	PL		B+ 1							25	A+	A	A	NA	A	*	√	6+3
46	18EC047	NAVANEETHAN M	NPL		B 1							25	B+	B+	B+	A	NA	*	√	7+2
47	18EC048	NITHISH S	PL		A 1	B+ 1						26	A+	A	A	NA	A	*	√	6+3
48	18EC049	NITHISHKUMAR H	PL		A+ 1							25	A	A	A+	NA	A	*	√	6+3
49	18EC050	NITHYA A	PL	A 1	B+ 1	B 1						27	A	A	A	NA	A	*	Eligible	6+3
50	18EC052	PAVITHRA P	NPL	B+ 1	A 1	B 1					O 3	30	O	A+	O	O	NA	Eligible	Eligible	7+2
51	18EC053	POORNACHANDRAN S	PL	A+ 1	A+ 1	B 1					A 3	30	A+	A	A	NA	A	Eligible	Eligible	6+3
52	18EC054	PRABAKAR SA	NPL		B+ 1							25	O	A+	O	O	NA	*	√	7+2
53	18EC055	PRAVIN S A	NPL		A+ 1	B 1					A+ 3	29	O	A+	O	O	NA	*	Eligible	7+2
55	18EC057	RAJESHWARAN A	PL		A 1	B 1	A 3				A 3	33	A	A	Eligible	NA	Eligible	*	Eligible	6+3
56	18EC059	RAJESHWAR S	PL	A+ 1	A+ 1	B+ 1					A 3	30	A	A	A+	NA	A	Eligible	Eligible	6+3
57	18EC059	RAVINATH D	PL		A+ 1							25	A+	A	A+	NA	A	*	√	6+3
58	18EC060	SABARISH S	NPL	A+ 1	A 1	B 1						27	O	A+	O	O	NA	*	Eligible	7+2
59	18EC062	SANJAI KUMAR K M	PL	A+ 1	B+ 1	B 1					B+ 3	30	A	A	A+	NA	A	Eligible	Eligible	6+3
60	18EC063	SANJAI R	PL	A+ 1	A+ 1	B 1	A+ 3				A+ 3	33	A	A	Eligible	NA	Eligible	*	Eligible	6+3
61	18EC064	SANTHIYA S	PL	A+ 1	A 1	B+ 1					A+ 3	30	A+	A+	A+	NA	A	Eligible	Eligible	6+3

Sample of NPTEL Course exemption

9.4.3 Centre for Innovation and Product Development (CiPD):

Objectives

- To explore innovative ideas, methodologies and technologies in local groups in general and tribal communities in particular.
- To organize seminar, conferences, workshops, exhibitions relating to innovations.
- To develop an innovative and entrepreneurial mindset.
- To provide opportunities for students to be engaged in innovative activities through creativity and technical workshops.
- To provide a platform for students, teachers and other members of the society to showcase their skills by creating new innovations and products.
- To support and facilitate grass root innovators in production and protection of property rights.



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- Aim at encouraging the enthusiasts in innovation.
- To identify the innovative young minds and energize them.
- Developing projects to obtain patent.
- Converting projects into marketable products in the national level competitions.
- To scope of getting funds for innovative projects.

Outcomes

- Students knowledge level of doing projects are improved.
- The outstanding projects and products displayed during Innovation day are rewarded and awarded.

Activities

- In house and external training on Innovation
- In house and external training on Entrepreneurial skills.
- Working on ideas and prototypes with mentors (teachers and trainers)
- Preparation for national-based competitions.

Organization of work -shops, seminars and conferences

Innovative Projects:



FIGURE B 9.4.3a Innovative project – Traffic light Lane detection and Alarm system in signal junction



FIGURE B 9.4.3b Innovative project display – GoKart Vehicle



FIGURE B 9.4.3c Innovative project display – e-Bicycle



FIGURE B 9.4.3d Innovative project display – Pesticide Spraying Machine



FIGURE B 9.4.3e Innovative project display – RC Bomber Aircraft



FIGURE B 9.4.3f Innovative project display – Organic Farming

Product Innovations, are those innovative solutions that are primarily aimed at selling tangible products (hardware + software + computing) to real-world customers who are willing to pay a price for the value delivered. Innovator usually develops technology or applies what is already available to solve a problem in a manner that creates gains, reduces losses, brings about desired changes or generally desired outcomes to the target beneficiary. Product primarily signifies the commercial nature of the innovation and also refers to the practical aspect that the financial upside of the innovation and for the innovator lies solely in the commercial success of the product in the market.

Products developed with the support of CiPD:



FIGURE B 9.4.3g OTP Based Security Locker

The purpose of this product is to provide security in a modernized way. OTP based security locker will help admin of the locker to control it over internet, by means of sending e-mails. It consists of controller or single board computer. This system gives full permission to admin who is the owner of locker. Admin can add and remove WIFI networks by means of email to the locker. The system identifies admin by their email-id. In subject they have to send with their username and password followed by the command. The program can parse and separate contexts and check for authentication and execute the command if authentication passes. The OTP generated has only three minutes validity. So the accessibility is instant thereby reducing the security risk. The administrator should keep mail id safely, by using two step verification and monitoring devices accessed.



FIGURE B 9.4.3h Tapioca Harvester

Tapioca, a starch extracted from cassava root is cultivated around the hill stations. It grows up to a height of seven feet. The cassava roots are very strong and it requires to be harvested assiduously when using hand. Large scale harvesters have harvesting attachments attached to the tractor. But it may damage the cassava, so the design is proposed to make a harvesting machine which will harvest the cassava without any damage and to make an effective equipment available at nominal prices. This harvesting machine consists of linkages and gears are used to harvest tapioca. By applying load by using leg on pedal it converted into rotational motion by rack and pinion mechanism. This load is converted into reciprocating motion with high torque by using various gear arrangement. This high torqued rotational motion again converted into reciprocation motion by using rack and pinion mechanism. Then it converts to required motion by using linkage arrangement. Cassava catch by using fixture. This fixture was activated by using linkage this activating link will activated by using hand it will be in near to left hand. Steering are provided to vehicle to control when moving in the field. These harvesting machines would be more helpful to farmers involved in low scale cultivation.



FIGURE B 9.4.3i Automation in Bio-Gas Plant

Now-a-days our country has high demand for fuels. In order to solve this shortage of fuels problem, we have developed a novel project. Methane gas is one of the clean energy resource and it is one of the constituent of bio-gas which has a great potential to be used as an alternative fuel. The existing bio-gas plants consist of one digester and therefore the efficiency is low, and the pressure will vary due to climate changes. So, we have alternately prepared that automation in bio-gas plant for the better enhancement of efficiency and maintain the pressure level with cow dung and food waste by using two digesters. It is the novel and key idea in our project. This work was carried out to produce a known quantity of bio-gas in a static plastic tank by collecting different food waste from canteen and hostel in Nandha Engineering College and cow dung also used. As a result of this treatment the produced bio-gas can be used in our Chemical Engineering Department laboratory. The by product (slurry) can be used as a fertilizer for agricultural field.

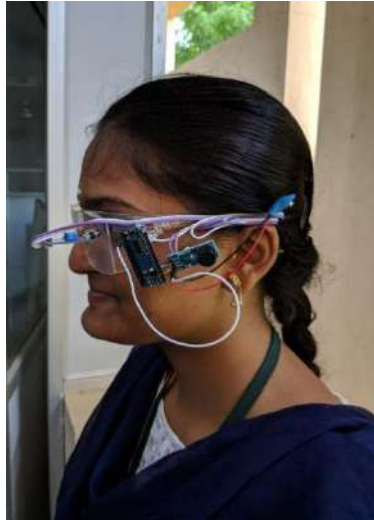


FIGURE B 9.4.3j Automatic Alert to Indicate Driver's Sleepy

Accidents due to driver drowsiness can be prevented using eye blink sensors. The driver is supposed to wear the eye blink sensor frame throughout the course of driving and blinking has to be for a couple of seconds to detect drowsiness. Any random changes in steering movement leads to reduction in wheel speed. The threshold of the vibration sensor can be varied and accordingly action can be taken. The outcome is that the vibrator attached to eye blink sensor's frame vibrates.



FIGURE B 9.4.3k Incinerator for Bio-Degradable Waste

Incineration is a waste treatment process that involves the combustion of organic substances contained in waste materials. Waste destruction in a furnace is controlled by burning at high temperatures. Incineration removes water from Hazardous sludge, reduces its mass and volume, and converts it to a non-burnable ash that can be safely disposed on land, in some waters, or in under-ground pits.



FIGURE B 9.4.31 Design and Fabrication of Biodiesel using Waste Plastics

Plastic is an indispensable part of our daily life. Its production and consumption has been rising very rapidly due to its wide range of application. Due to its non-biodegradable nature it cannot be easily disposed off. So, now a days new technology is being used to treat the plastic wastes. One of such process is pyrolysis. Here the main consideration is the recovery of liquid products which composed of higher boiling point hydrocarbons. The waste plastic consists of high density polyethylene (HDPE). Pyrolysis appears to be a technique that is able to reduce a bulky, high polluting industrial waste while producing energy and valuable chemical compounds. The oil produced in a pyrolysis process is Pyrolysis oil. Pyrolysis oil is sometimes known as bio crude oil or bio oil Materials such as PCB (Printed Circuit Board) and other plastic bags were collected from old and obsolete computers through local sources. The batteries, capacitors and other electronic devices from PCBs were mechanically removed. These boards were crushed using laboratory jaw crusher to get pieces in the size range of 3-5cm. Lower reaction temperature of 700-800 degree C. It lower operating cost, it increases safety and reduced maintenance.



FIGURE B 9.4.3m Effective use of Waste Water in Toilet Basin

It saves space. This would not mean much if you have a large house but for urban dwellers, especially those who live in apartments, space could be an issue and anything dual-purpose is more than welcome. It conserves water. The toilet-sink combo is a great way to contribute to the environment while maintaining proper hygiene. Speaking of hygiene, this brings us to my third reason – it keeps your hands clean. It should be common practice to wash your hands every time you use the toilet but some people tend to forget or get lazy. With the toilet-sink and urinal-sink combos, you have no excuse for not washing your hands.



FIGURE B 9.4.3n Water Level Controller

Water is wasted in larger amount because of human carelessness and also laziness to do some work. Water level controller controls the water level in a tank with float less design. Since the floating mechanism is expensive, many people could not afford it so, this float less design would be cheaper and efficient.



FIGURE B 9.4.3o Swadeshi Eco Filter

Swadeshi Eco filter is an accessory made of recycled materials which can be used for filtering the rainwater collected from the roof and terrace of the building. It can be used as a filter media for the ultimate benefit of water conservation by means of rainwater harvesting during the rainy season to enjoy the fruitful beneficiary needs at the time of heavy summer and drought seasons. It provides excellent opportunity to collect the rainwater without any debris to store it directly in the sump and ready to use quality for various purposes.



WHEELCHAIR



E-TRICYCLE



E-BICYCLE

FIGURE B 9.4.3p Innovative Project for Disabled Persons

The electric bicycles are becoming more and more popular in the recent past preferably among elderly people. More recently people with disabilities are also showing interest towards this product because of the ease of moving from one place to another place. The investigation on literature revealed that the electric bicycle is having either 2 wheels or 3 wheels only, with a future scope of developing integrated 2 & 3- wheels electric cycle. The proposed design could be used by normal persons as 2-wheeler and persons with disabilities as 3 -wheeler. The prototype model of electric bicycle was developed and tested. The proposed design of 2 & 3- wheels' electric cycle

with motorized handle attachment shows better mobility solutions for disabled persons and non-disabled persons.

9.4.4 Centre of Excellence/Industry supported Lab

The self-learning habituation is further inculcated through Centre of Excellence/Industry supported Lab established at various departments.

Department of Mechanical Engineering

M/s SAN ENGINEERING SOLUTIONS has supported to establish a Digital Product Design lab at college premises to enhance the students' skills in the field of Design. Industry is providing real industrial drawings for practice with latest software package and manpower support.



FIGURE B 9.4.4a Digital Product Design lab

Department of Electronics and Communication Engineering

Centre of Excellence for Advanced Communication Technologies (CEACT) activities carried out are

- Seminar, Workshop, Hands on Training
- Research activities
- Final year projects



FIGURE B 9.4.4b Workshop on Electromagnetics, Microwave, RF and Antenna Design

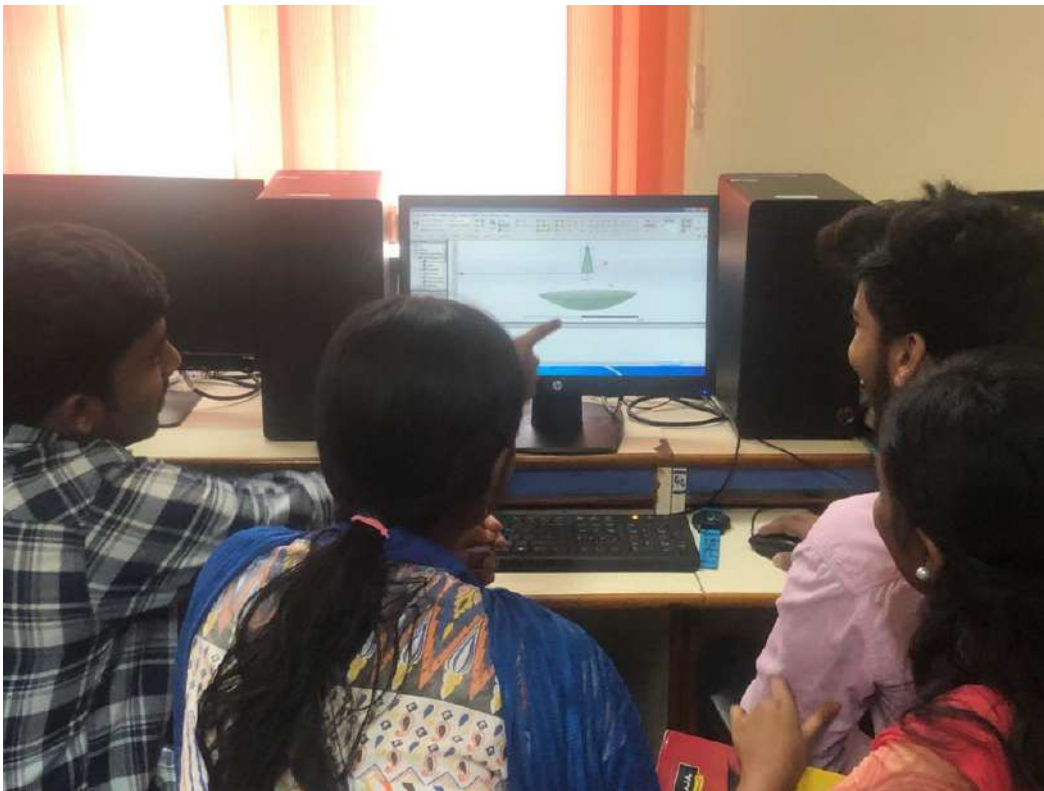


FIGURE B 9.4.4c Hands on Training in Antenna Design using Ansys HFSS Tool



FIGURE B 9.4.4d Seminar on Simulation of Antennas

Centre of Excellence for Embedded Systems (CEES) activities carried out are

- **Seminar, Workshop, Hands on Training**
- **Research activities**
- **Final year projects**





FIGURE B 9.4.4e Seminar on “ARM controllers & its Applications”

Department of Computer Science and Engineering

To meet the current demands of the industries, the department has taken initiatives to establish the Centre of Excellence. The department of Computer Science and Engineering has established a laboratory and given to NewGen software, Business process Management Company. Newgen Software is a global provider of business process management (BPM), enterprise content management (ECM), customer communication management (CCM) solutions with a footprint in 66 countries with large, mission-critical solutions deployed at banks, governments, BPOs & IT companies, insurance firms and healthcare.

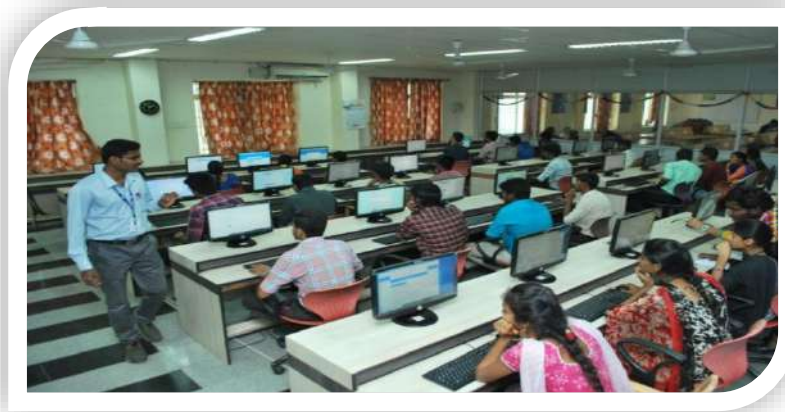


FIGURE B 9.4.4f NewGen Laboratory

Department of Electrical and Electronics Engineering

Industry Supported Lab - M/s Kulothung Automotive Systems. Industry Supported Lab provides training, project guidance and placement opportunities.



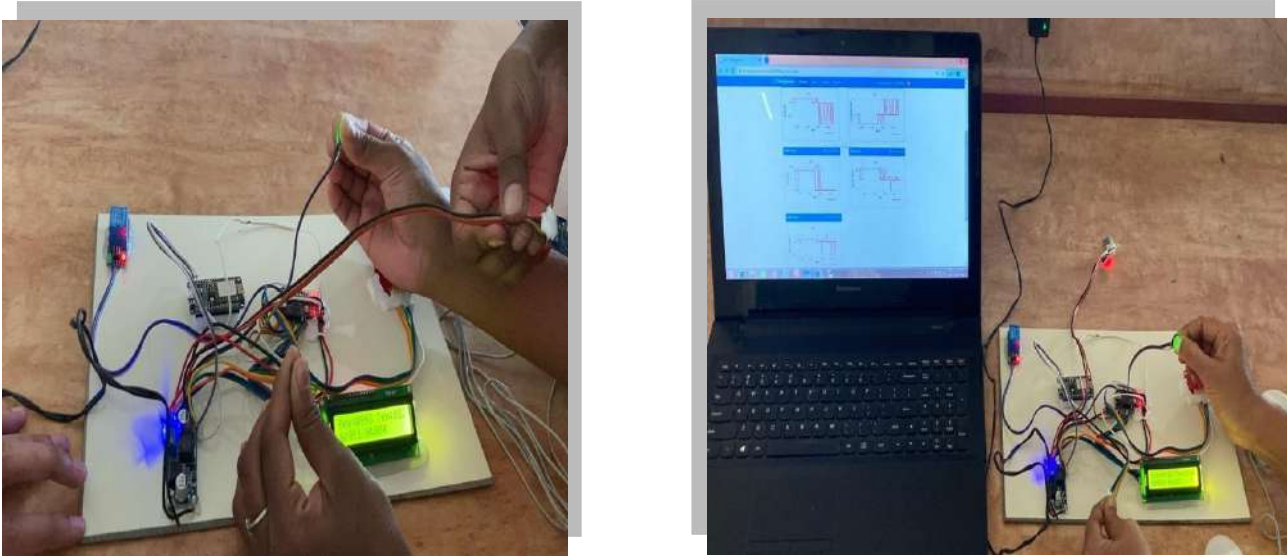


FIGURE B 9.4.4g Design And Implementation of RTC For Textile Automation

Content Beyond Syllabus

- Department Association, Professional Chapters and Students Association takes initiative to organize Conferences, Industry institute interaction Programmes. Workshops, Seminars and Invited Talks are frequently conducted for students by inviting experts from industries, reputed institutions and alumni.
- Special lectures, One credit course, Add-on courses, value added courses are conducted to address the content beyond syllabus and to bridge the curriculum gap.
- Student Centric Methods such as Experiential learning, Participative Learning and Problem Solving Methodology are used for enhancing Learning Experience.
- Students are encouraged to work with innovative ideas and shall focus on current technological trends to do their Seminars and Projects to acquire knowledge beyond syllabus.
- Technical Symposia are organized by the students which enable them to be aware of the new frontiers in engineering.
- Department organizes Industrial visits, Internships, IPT and support students to do Projects at industries to make them aware of the challenges in the industry.
- Students shall be encouraged to utilize resources like NPTEL and various e-learning materials and e-journals. The students shall be encouraged to attend various online courses and trainings to address the content beyond syllabus.

- National and International Conferences and expert talks shall be avenues for the students to enhance their technical knowledge and soft skills by interacting with the resource persons of expertise from various fields.
- National Service Scheme shall help students to take up socially relevant projects, thereby imparting social commitment and environmental awareness which is minimally addressed by the curriculum.

Students shall be encouraged to publish in-house technical Magazine and Newsletter which not only helps them to be aware of the recent trends in industry and research but also enhances the organizing skills.

9.5 Career Guidance, Training, Placement

(10)

Self Assessment (10)

9.5.1 Career Guidance Cell

Career Guidance cell caters the need for all the students in providing the orientation programmes and training in the following areas:

1. GATE Exam Orientation
2. IBPS-Orientation / Training
3. Abroad studies
4. Civil Services and other competitive exams

Orientation and training programs are arranged for the willing students and necessary support is provided by the subject experts available from industries and internal faculty members. Coaching classes are arranged to enable the students to get ideas and prepare themselves to pursue their higher studies in India and Foreign countries.

Programmes conducted through Carrer guidance cell are mentioned in the table below:

TABLE B9.5.1a Event details of Career guidance cell

S.No	Academic Year	Name of the Programme	Date	Resource
1	2021-2022	An Eye Opener Session on Civil Service Examination	08.04.2022	Mr. Ramesh A Aditya Head- Strategy, Shankar IAS Academy, Chennai.



2	Career Guidance on Cracking Competitive Examinations	26.05.2022	Mr. Sakthi Parthiban & Mr. Giridhiri Nagarajan Dheeran IAS Academy, Coimbatore
3	Higher Education opportunities for Chemical Engineers	21.12.2021	Mr. Thiagarajan Thirunavukkarasu, Director, T.I.M.E., Erode
4	Higher Education opportunities	21.12.2021	Mr. Thiagarajan Thirunavukkarasu, Director, T.I.M.E., Erode
5	Higher Education opportunities	02.12.2021	Mr. Thiagarajan Thirunavukkarasu, Director, T.I.M.E., Erode
6	Awareness on GATE exam	28.11.2021	Mr. V. Sathya Moorthy & Mr. R. Vivekanandan, GATE educator, Unacademy (PAN INDIA), Coimbatore.
7	Awareness on Government job opportunities for Engineering students	26.11.2021	Mr. V. Sathya Moorthy & Mr. R. Vivekanandan, GATE educator, Unacademy (PAN INDIA), Coimbatore.
8	Tips to crack GATE/Technical Exam for Chemical Engineers	24.11.2021	Mr. M. Ismail Shahib, Proprietor-ED-TECH-Gate Interactive Guidance, Palani
9	Future of Aviation and Cargo Industry & Employment Opportunities in India and abroad	31.12.2021	Veerababu M, Director, SACCA Institute of Frieght and Tourism (OPC) Private Ltd., Chennai.
10	Motivational Talk on Career Opportunities in Defense Services	17.12.2021	Captain K. Senthil Kumar (Retd), Indian Defense Service
11	Farm Entrepreneurship- The way forward	07.12.2021	Prof. R. M. Subramanian, department of Agriculture Engineering, Nandha Engineering College, Erode- 52
12	Interview Techniques		Dr. P Urmila, Associate Professor &Head (PG), Department of English, Cauvery College for Women (Autonomous), Tiruchirappalli.
13	Language Acquisition in Diverse Linguistic	06.10.2021	Mr. I. Amal raj, Assistant Professor of English,



		and Social Circumstances		Senthamarai College of Arts and Science, Madurai.
14		Employability Skills and its Importance	29.09.2021	Dr. V Sangeetha, Associate Professor of English, Mahendra Engineering College (Autonomous), Namakkal.
1	2020-2021	Career in Cyber Security	22.05.2021	Mr.G.Viswanathan, Security Analyst, Ernst & Young, Chennai.
2		Preparation Strategy for Competitive Exams & Higher Studies through GATE	20.05.2021	Mr.V.Sathyamoorthy, GATE Educator, Unacademy, Coimbatore.
3		Webinar on Innovation and Startup Scope in AI and ML	18.05.2021	Mr.K. Kamalahassan, Program Director, Optimis AI Sdn. Bhd., Federal Territory of Kuala Lumpur, Malaysia.
4		Motivational Speech on Career Guidance	05.08.2020	Ms. Nandhini Shanmugham, Assistant System Engineer, TCS, Bangalore.
5		Getting Ready for Professional Life	30.07.2020	Mr.Niravkumar Bhatt, Oil and Gas Professional, Qatar.
6		A Step Ahead	12.07.2020	Ms. N. Sujisha, Regional Manager, Genworks Health, Haryana.
1	2019-2020	GATE Exam Orientation/ Scholarship Test	24.09.2020	GATE FORUM, CBE
2		Orientation Programme CAT, MAT, & GRE	15.09.2020	Princeton Review, CBE
3		Higher Education in Foreign Universities	28.08.2020	The Chopras, CBE
1	2018-2019	GATE Exam Orientation Programme	27.09.2019	The GATE Academy
2		Higher Education in Abroad	14.09.2019	Edumatters by Mrs. Pavithra Rajesh
3		Civil Service Examination – Orientation	08.07.2019	Shankar IAS Academy
4		IBPS Exam – Introduction to Bank	15.07.19 to 30.07.19	CWJ Academy



		Exams and 15 Days Training Programme		
1	2017-2018	GATE Exam Orientation for Mechanical Engineers	14.09.2018	Hi-Focus GATE Academy Ms.AswiniandMr.Nanbarasan
2		Class Room Orientation for GATE	21.06.2018	Hi-Focus Gate Academy
3		GATE Exam Orientation	12.03.2018	Hi-Focus GATE Academy, Mr.Nanbarasan
4		Orientation Programme on IBPS	18.08.2017	Race Institute, Erode
5		Career Opportunities and Higher studies in Abroad	18.08.2017	WISA International Consultancy, Mumbai
6		GATE Exam Challenges	31.07.2017	GATE Forum
7		Higher Studies and Opportunities in NZ	28.07.2017	Mr.GilesBrooker, Newzeland
8		Higher Studies and Job Opportunities in UK	10.07.2017	Future Dream Consultancy
1	2016-2017	Higher Education in Abroad	22.09.2016	The Chopras, Coimbatore

9.5.2 Internship

The students are encouraged to do an internship in industries during vacation period and specifically, the students of final year are facilitated with long term internships in industries.

The student internships will provide them a scope to practice as an engineer on the floor. Initiatives and implementation details of industry internship / summer training are as follows:

- The students are encouraged to take up internship / In-plant training program during summer vacation
- Faculty help the students by interacting with the industrial experts and provide the necessary documents to the students to carry out the training

Area for Improvements

- Inter-personal communication
- Placement in core companies
- Hands-on experience
- Scores secured in competitive exams like GATE, TANCET etc.

Opportunity



- To take up industrial projects
- Scope for placement

TABLE B9.5.2a Students Year wise Industrial Project /Internship count

Academic Year	No. of students attended Industrial Project /Internship
2021-2022	199
2020-2021	357
2019-2020	355
2018-2019	148
2017-2018	333
2016-2017	194

9.5.3 Research Attachment Programme at University TeknologiPetronas (UTP)- Malaysia**Objectives:**

- ✓ To get International Exposure
- ✓ To get domain specific knowledge

Outcome:

The students were in a position to equip themselves towards the industry and societal needs.

TABLE B 9.5.3a Participation details for the Academic Year (2016-2017)

S.NO	REG.NO	NAME OF THE STUDENT	BRANCH	DURATION OF INTERNSHIP
1.	13CS070	T.D.GIRIANANDHAN	CSE	01.12.2016 to 31.01.2017
2.	13CS094	S.SARATH	CSE	
3.	13EC061	M.PAVITHRA	ECE	
4.	13EC119	S.KARTHICK	ECE	
5.	13ME062	S.KISHORE	MECH	
6.	13CE051	B.GOKUL	CIVIL	





FIGURE B 9.5.3a Internship team of Nandha Engineering College to UTP, Malaysia during (2016-17)

TABLE B 9.5.3b Internship participation details for the Academic Year (2017-2018)

S.NO	REG.NO	NAME OF THE STUDENT	BRANCH	DURATION OF INTERNSHIP
1.	14CS003	A.S.AJAY KUMAR	CSE	20.02.2018 to 21.04.2018
2.	14CS037	A.MONIK RAJ	CSE	
3.	14CS069	K.SURUTHI YALYNY	CSE	
4.	14EC081	K.PRITHIKA	ECE	
5.	14EE043	K.MURALIDHARAN	EEE	
6.	14EE086	S.VIDHYA DEVI	EEE	
7.	14ME043	M.JASEEM MUHAMEED	MECH	
8.	14ME063	P.V.KAVIN KUMAR	MECH	
9.	14ME068	B.KUMARAVEL	MECH	
10.	14CE031	K.JAWAHAR	CIVIL	



FIGURE B 9.5.3b Internship team of Nandha Engineering College to UTP, Malaysia during (2017-18)

TABLE B 9.5.3c Internship participation details for the Academic Year (2018-2019)

S.NO.	STUDENT NAME	COMPANY NAME
1.	SURUTHIYALYNY K	University of Petranos, Malaysia.
2.	AJAY KUMAR A.S	University of Petranos, Malaysia.
3.	MONIKRAJ A	University of Petranos, Malaysia.
4.	PRAVEENKUMAR A	Inferon Online Services India Pvt. Ltd.
5.	VIMAL R.Y	Inferon Online Services India Pvt. Ltd.
6.	USHARANI M	Inferon Online Services India Pvt. Ltd.
7.	PAVITHRA M	Inferon Online Services India Pvt. Ltd.



8.	ARJUNAN K	Inferon Online Services India Pvt. Ltd.
9.	ABISHEK M	3 Mind Strategic Pvt. Ltd.
10.	AKSHAYA R	3 Mind Strategic Pvt. Ltd.
11.	ATHIRADEVI A	3 Mind Strategic Pvt. Ltd.
12.	MANIKANDAN R	3 Mind Strategic Pvt. Ltd.
13.	PARTHIBAN B	3 Mind Strategic Pvt. Ltd.
14.	SANTHOSH S	3 Mind Strategic Pvt. Ltd.
15.	TAMIZHARASI G	3 Mind Strategic Pvt. Ltd.

TABLE B 9.5.3d Internship participation details for the Academic Year (2019-2020)

S.NO	NAME	COMPANY NAME	INTERN DURATION
1	S.Ajith	Green Labs Solutions (Appranix R&D Center), Coimbatore	06.03.2019 to 03.05.2019
2	Bathri Akash	fAme Technologies, Bangalore	11/02/2019 to 11/08/2019
3	J.Akshaya	3 Mind Strategic Pvt. Ltd.	11.02.2019 to 30.05 2019
4	S. Nandhini	3 Mind Strategic Pvt. Ltd.	11.02.2019 to 30.05 2019
5	P.Sanmathi	3 Mind Strategic Pvt. Ltd.	11.02.2019 to 30.05 2019
6	P.Sangavi	3 Mind Strategic Pvt. Ltd.	11.02.2019 to 30.05 2019
7	Monalisha koley	3 Mind Strategic Pvt. Ltd.	11.02.2019 to 30.05 2019



TABLE B 9.5.3e Internship participation details for the Academic Year (2020-2021)

S.NO	NAME	COMPANY NAME	INTERN DURATION	STIPEND PER MONTH
1	S.Sivadharshini	Kumaran Systems	08.07.2019 to 30.07.2020	10000
2	J.Deena Mary	Kumaran Systems	08.07.2019 to 30.07.2020	10000
3	shankar sri babu	Kumaran Systems	08.07.2019 to 30.07.2020	10000
4	D.Arunkumar	New Gen Infotech Private Limited	June 2019 to June 2020	NIL
5	D.Goushiikh	New Gen Infotech Private Limited	June 2019 to June 2020	NIL
6	J.Tharani	New Gen Infotech Private Limited	June 2019 to June 2020	NIL
7	V. Boopathi	New Gen Infotech Private Limited	June 2019 to June 2020	NIL
8	P.Vishnu	New Gen Infotech Private Limited	June 2019 to June 2020	NIL
9	V. Chellapandian	New Gen Infotech Private Limited	June 2019 to June 2020	NIL
10	N.Tharunkumar	i-Gen Temenos	16.12.2019 to 30.05.2020	NIL
11	Indhu Mathi	Aerele Technologies Pvt. Ltd	26.09.2019 to 25.04.2020	8000

9.5.4 Placement cell

There is a centralized placement cell functioning in the institution to arrange the placement training (aptitude and soft skill training) and campus recruitment for students. In addition to this separate placement coordinators are assigned for each department to facilitate the process (placement training, group discussion, mock interview).

A duty schedule for all the department placement coordinators as well as for few other faculty members are prepared for the effective conduction of training programme.

The coordinator should spend time with batch allocated to them during the whole training duration.

The placement cell offers guidance regarding the career opportunities in each fields based on interests and attitude. It provides information regarding various companies scheduled for placement drives. The departments invite their alumni to offer the career guidance to the students.



An external consultant also offers guidance to interested students during his visits to campus. Students interested in pursuing higher studies in India or abroad registered higher education cell, which provides guidance by disseminating information about reputed universities, application process, and scholarships available.

Placement Department

Placement Coordinator: **Mr. K. Ve. Prabhu,**
Head Corporate Relations,
Nandha Educational Institutions.

Mr. S. Sivaramakrishnan
Head Training and Development
Nandha Engineering College.

Placement Trainee: Ms. S. Ramya
Ms. K. Darani
Ms. M. Usharani

Department wise Placement Coordinator

Mr. V.Manimaran AP/CSE
Mr. G.Rathanasabhpathy AP/ECE
Mr. M.N. Shrigowtham AP/IT
Mr. S.K. Gowtham AP/Civil
Mr. T.JayakumarAsP/EEE
Mr. S.Jagadeesan AP/CSE
Mr. M. Mohamed AjmalMahasin AP/Mechanical
Mr. G. Praveen Santhoshkumar AP/EIE
Mr. J.Tamilarasu AP/MBA

Pre-Placement training:

Company accesses the students in verbal, aptitude, reasoning, spoken, written English and programming skills. Hence a schedule is planned in such a way for final year students in the beginning of academic year to focus on verbal, aptitude and reasoning. This program caters to the placement aspect of Engineering students.

TABLE B 9.5.4a Pre-Placement training activities



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Day	Verbal	Aptitude & Reasoning
1	Parts of Speech	Problem on Numbers, Series Completion
2	Tenses	Average, Odd Man Out, Calendar
3	Subject verb Agreement	Age, Clock
4	Degrees	Ratio & proportion
5	Articles,Anology	Partnership, Directions
6	Preposition, One word Substitutions	Percentage, Coding Decoding
7	Conjunction, Blood Relation	Profit & Loss, Seating arrangements
8	Modals	Mixture
9	Error Spotting,Sentence Correction	SI & Venn Diagram
10	Completing Statements	CI
11	Idioms & phrases,Confusable Words	Time & Distance,
12	Jumble Sentences	Train & Boats
13	Reading Comprehension,Data Interpretation	Time & Work
14	Antonyms,Synonyms,Spell Check(Odd one out Combination)	Pipes and Cistern
15	Theme Detection,Data Sufficiency,	Permutation &Combinations,
16	Statement & Conclusion and Syllogism	Probability
17	Statement & Assumption	Logical Equivalent,Matrix Representation,Non-Verbal reasoning,

Department wise placement status:



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TABLE B 9.5.4b Department Placement Status

YEAR	ECE	CSE	IT	MBA	CIVIL	EEE	EIE	MCA	MECH
2021-22	59	88	44	18	16	66	-	5	93
2020-21	53	58	23	20	16	23	5	7	143
2019-20	53	45	32	15	16	17	4	21	111
2018-19	62	69	31	26	57	35	12	15	136
2017-18	79	56	13	25	67	50	5	17	113

The Training and Placement Cell of NEC organizes placement day celebrations to honour the recruiters as well as the students who have been placed through the campus interviews organized by the college, on its campus at NEC.

**FIGURE B 9.5.4a Placement Day**

9.6 Entrepreneurship

(5)

Self Assessment (5)

(The institution may describe the facility, its management and its effectiveness in encouraging entrepreneurship and incubation).

Entrepreneurship development cell strives to inspire and integrate a culture of innovation through a conducive entrepreneurial ecosystem to help budding entrepreneurs realize their dream to start up their own enterprises. It refines the entrepreneurial skills like idea generation, opportunity evaluation, business modeling, cash flow, forecasting, negotiation and sales skills through hands on training, programs, mentoring and campus startups. Further, it facilitates incubating innovations through various schemes. It works towards building the leadership skills



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among the students to enhance their entrepreneurial competencies. It is functioning to motivate the students to become entrepreneurs and thus to make them job providers rather than job seekers.

Coordinator: Mr.J.Tamilarasu, Assistant professor/ MBA

9.6.1 Objectives of EDC:

- To develop and nourish the entrepreneurial spirit which is inherent in every learner and help them gain a broader and more importantly, entrepreneurial perspective of looking at life in every situation thus empowering them to excel as entrepreneurs.
- To foster culture of entrepreneurship among students.
- To conduct orientation and awareness programmes and to attract students into establishing their own enterprises.

9.6.2 Mile stones in the activities of EDC:

- The Cell has conducted Entrepreneurship Awareness Camps(EACs) sponsored by **Department of Science and Technology(DST)**, Ahmedabad during Academic Years 2013-2014, 2014-2015, 2015-2016, 2016-2017, 2017-2018
- The cell has extended support to create awareness for EAC Phase I for Final years and EAC Phase II for Pre-Final years.
- Recently, for the academic year 2019-2020, Rs. 40,000/- is sanctioned to conduct two phases of ED Awareness Camps received through DST-NIMAT sanction letter dated 12th August 2019.

9.6.3 Activities in EDC:

TABLE B 9.6.3a Event Details for the Academic Year 2021-2022

S.No	Date	Programme	Resource Person
1	20.12.2021 TO 22.12.2021	ENTREPRENEURSHIP AWARENESS CAMP	Mr.V.Raja Proprietor Sri Bannari Amman Home Care, Salem. Mr.Jc.L.Sampath Kumar Managing Director, Nallakadai Managing Partner, South India Organic Farms, Erode. Mrs.Priya Nirmalkumar Proprietor Sri Devi Stores Erode. Prof.K.Gunasekar,



			<p>Head Department of Computer Science & Engineering Nandha Engineering College(Autonomous) Erode.</p> <p>Seva Ratna S.Kaviarasu Managing Director, Hindustan Skill Development Institute IISDT, State Coordinator TamilNadu.</p> <p>Mrs.T.Jansirani Assistant Engineer (Industries) District Industrial Centre Erode.</p> <p>Mr.P.Nandha Kumar Partner Maya Bazaar Restaurant & Bubbles kids & Women, Erode.</p> <p>Dr.K.Saravanan Assistant Professor Department of English Nandha Engineering College(Autonomous) Erode.</p>
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TABLE B 9.6.3b Event Details for the Academic Year 2019-2020

S.No	Date	Programme	Resource Person
1	19.09.2019 and 21.09.2019	Entrepreneurship Awareness Camp Phase - I (For final year Engineering students)	<p>1.Mr.Ravichandran, Proprietor, Sri Kumki Restaurant, Erode</p> <p>2. Mr.Odanthurai Shanmugam, Social Entrepreneur and former President, Odanthurai Panchayat</p> <p>3. Mr.S.Kannan, Proprietor, Selvam traders, Velakovil</p> <p>4. Mr.P.N.Nirmal Raj, Founder, Rivera Coil Rewinding, Erode</p> <p>5. Ms.Tamil Selvi, Agro Entrepreneurship, Gobi</p> <p>6. Mr.D.Ramesh, Proprietor, Goat Farming and Agriculturist, Anthiyur</p> <p>7. Ms.G.Chithra, Proprietor, Srinivi Boutique, Erode</p> <p>8. Mr.Yogashanmugam, Aviculturist, Too and Tile farm,Gobi</p>

TABLE B 9.6.3c Event Details for the Academic Year 2018-19



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S.No	Date	Programme	Resource Person
1	10.09.2018 to 12.09.2018	Entrepreneurship Awareness Camp	<p>1. Dr.Vijesh, CoE-3, Mind Strategic, Mexico.</p> <p>2. Mr.T.Logeeswaran, Managing Director, Shri Ganga Food Products, Erode.</p> <p>3. Mr.R.Praveen Kumar, Partner, Chennai Gate Rice Industries (P) Ltd., Erode.</p> <p>4. Mr.Chinnasami, Director, Agni Steels Private Ltd, Erode.</p> <p>5. Mr.P.Sachidanandam, Managing Director, SLT Animal Feeds India Pvt. Ltd, Erode.</p> <p>6. Mr.S.Ganesan, Managing Director, Saaral Mineral Water, Erode.</p> <p>7. Ms.SaranyaRangasamy, Founder, The Right Turn, Tirupur.</p> <p>8. Mr.M.KMaheswaranSenthil Autos Hero Dealer Erode</p>
2	21.02.2019 to 23.02. 2019	Entrepreneur Awareness Program for Pre-Final Years sponsored by DST, New Delhi	<p>1. Mr.V.P.SRadha Krishnan Chairman, CII Erode Zonal Council and Managing Director Angel Starch and Food Pvt Ltd Erode</p> <p>2. JcB.Madhavakrishnan Proprietor- NMK Online Service Erode</p> <p>3. Mr.K.Kaveen Kumar Managing Partner -TipTop Groups Erode andKarur</p> <p>4. Dr.D.Ravichandran Director</p>



			<p>Hayman Environmental Engg Pvt Ltd, Erode</p> <p>5. Mr.Sivakumar Venkatachalam, Founder-Konga Goshala, Kangayam.</p> <p>6. Mr.S.Ravishankar CEO-Bright Digi World Tiruppur</p> <p>7. Mr.Logesh Sivasubramaniam Managing Partner Sri Thindal Punjabi Family Restaurant Erode</p> <p>8. Mr.C.Mohan Kumar Executive Director- Skybays Erode</p>
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TABLE B 9.6.3d Event Details for the academic year 2017-18

S.No	Date	Programme	Resource Person
1	09.08.2017	Ignite the Entrepreneurial Spirit	Mr.Pradeep Deva Sundararaji CEO and Co-Founder Bucks Buckets
2	20.03.2018	Entrepreneurial Inspirations	1.Er.D.Shanmugan, CEO, Yes and Yes Constructions 2.Er.R.MohanRaj, President, Federation of All Civil Engineers Association of Tamil Nadu and Pondicherry.

TABLE B 9.6.3e Event Details for the Academic Year 2016-17

S.No	Date	Programme	Resource Person
1	18.08.2016 to 20.08.2016	Entrepreneurship Awareness Camp Phase - I (For final year Engineering students)	1. Padma Shri Mr.SKM.Maeilanandhan Industrialist and Founder S. K. M. Group of Companies and President-Erode District Consumer Protection Centre 2. Sri .Mr.Adhikesavan President of Sowbaghya Grinder Erode 3. Mr.Prakash Subramaniam Managing Director Shakthi Cups, Erode
2	20.03.2017 to 22.03.2017	Entrepreneurship Awareness Camp	1. Mr.VPS. Radhakrishnan, Vice Chairman, CII Erode Zone and Managing Director,



		Phase-II (For pre-final year Engineering students)	<p>Angel Starch and Foods Pvt Ltd., Erode.</p> <p>2. Mr.KarthikeyaSivasenapathy, Managing Trustee, SenaapathyKangayam Cattle Research Foundation , Kangayam.</p> <p>3. Mr.V.Rajamanickam, Managing Director, Shanmugha Group of Companies, Erode.</p> <p>4. Dr.V.Rajasekaran, Assistant Director-Students Welfare VIT University - Chennai Campus</p> <p>5. Mr.L.Narayanan, Chief Executive Officer, MR Color Lab and Studio, Erode</p>
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9.6.4 Glimpses and abstract of the events conducted under Entrepreneurship Development Cell:



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Figure 9.6.4a EAC Inaugural speech by Mr.V.Raja,Proprietor,Sri Bannari Amman Home Care Salem



Figure 9.6.4b Mr.Jc.L.Sampath Kumar,Managing Director, Nallakadai&South India Organic Farms,Erode



Figure 9.6.4c Mrs.Priya Nirmalkumar,Proprietor,Sri Devi Stores,Erode.



Figure 9.6.4d Prof.K.Gunasekar, Head,Department of Computer Science & Engineering,Nandha Engineering College(Autonomous),Erode



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Figure 9.6.4e Seva Ratna S.Kaviarasu,Managing Director,Hindustan Skill Development Institute,IISDT, State Coordinator,TamilNadu.



Figure 9.6.4f Mrs.T.Jansirani,Assistant Engineer (Industries),District Industrial Centre,Erode



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Figure 9.6.4g Mr.P.Nandha Kumar,Partner ,Maya Bazaar Restaurant & Bubbles kids & Women,Erode

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Figure 9.6.4h Dr.K.Saravanan,Assistant Professor,Department of English,Nandha Engineering College(Autonomous),Erode



Figure 9.6.4i Tex Valley Visit on 22.12.2021



TABLE B 9.6.4a Success Index of students turned into Entrepreneurs

Academic Year	Total Number of students turned into Entrepreneurs		Cumulative Total
	UG	PG	
2020 - 21	1	2	3
2019 - 20	4	2	6
2018 – 19	6	6	12
2017 – 18	3	3	6
2016 -17	7	9	16

9.7 Co-Curricular and Extra Curricular Activities:**(10)****Self Assessment (10)**

Nandha has incited the student activities by motivating and supporting the students to participate in various Co-Curricular and Extra Curricular activities. Co-Curricular activities of the students is monitored by the respective department and Physical Director is responsible for the entire Extra Curricular activities. Proctor takes care of the development of students in both Co-Curricular and Extra Curricular activities. The CiPD (Centre for Innovation and Product Development) cell takes initiative to explore the student's Co-Curricular activities by supporting towards to bring innovative ideas. NEC conducts innovation day every year to enrich the student's knowledge.

Student's participation in Co-Curricular and Extra-Curricular activities are encouraged through a platform "RHYTHM" every year in the month of March/April. There are also various clubs and forums established in NEC to encourage the students participation such as NSS, road safety, YRC, Tree Plantation, Cultural and Music, Fin Arts, Photography, Trekking, Women's club, Sports etc therefore to develop their Extra-Curricular abilities.

9.7.1 Co-curricular Activities

Co-curricular activities like Science Quiz, paper presentations, seminars and group discussion sessions are conducted. The details of various categories of activities are listed below



Achievements in Co-curricular activities:**TABLE B 9.7.1a Summary of achievements in Co-curricular activities**

S. No	Name of the Activity	No of Students Participated					
		2021-22	2020-21	2019-20	2018-19	2017-18	2016-17
1	Paper Presentation	53	65	151	111	262	132
2	Technical workshops	487	312	404	57	124	179
3	Project Presentation	-	47	84	97	264	230
4	Seminar	246	307	557	44	89	179
5	Other events	244	780	413	765	1005	679

Event details and the achievement of the students**TABLE B 9.7.1b Student Achievement details**

S.No	Name of the Student	Date	Event Name	Venue	Result
1	DEEPIKA.S	29-04-2022	Other events	KSR college of technology	Second Prize
2	P.SONIYA SREE	29-04-2022	Other events	KSR COLLEGE OF TECHNOLOGY	Second Prize
3	P SONIYA SREE	27-05-2022	Other events	KSR COLLEGE OF TECHNOLOGY	Second Prize
4	SWETHA.R	19-04-2022	Other events	VELLALAR ENGINEERING COLLAGE	First Prize
5	DHARANI S	21-10-2022	Other events	Paavi Engineering College	First Prize
6	HARIPRIYA L M	15-11-2021	Other events	Nandha Engineering College	First Prize
7	RATCHANYA. A	15-11-2021	Other events	NANDHA ENGINEERING COLLEGE	Second Prize
8	Menaka Gandhi N	26-05-2022	Other events	Hindusthan college of engineering and technology	Second Prize



9	J.JANANI	15-11-2021	Seminar, Other events	NANDHA ENGINEERING COLLEGE, ERODE	Second Prize	C
10	DHARANI S	29-04-2022	Other events	KSR Engineering College	Second Prize	R
11	S.SRI LAKSHMI	12-11-2022	Paper Presentation, Technical workshops, Other events	NANDHA ENGINEERING COLLEGE(3), ERODE SENGUNDHAR ENGINEERING COLLEGE(2), BHARATIDASAN ARTS AND SCIENCE COLLEGE(2), EXCEL ENGINEERING COLLEGE(1)	First Prize	I T E R I O N
12	HARIPRIYA L M	15-11-2021	Paper Presentation, Seminar, Other events	Nandha Engineering College	First Prize	
13	INTHU.M	20-10-2022	Other events	Paavi engineering college	Second Prize	9
14	INTHU.M	19-04-2022	Other events	Velalar college of engineering and technology	First Prize	
15	SWETHA.R	20-10-2022	Other events	PAAVAI ENGINEERING COLLAGE	Second Prize	
16	SHARMA .E	18-05-2022	Other events	TAMILNADU AGRICULTURE UNIVERSITY - COIMBATORE	First Prize	
17	SHARMA.E	05-07-2022	Other events	TAMILNADU AGRICULTURE UNIVERSITY - COIMBATORE	First Prize	
18	BHAVAN HARI KARTHI.S.S	13-07-2020	Other events	ANANDA COLLEGE	First Prize	



CIVIL Engineering

S.No	Name of the Student	Date	Event Name	Venue	Result
1	V.Gokulan	22.04.2022	Project Competition	Erode Sengunthar Engineering College	Second Prize
2	S. Hariprakash	29.04.2022	Auto CAD	MPNMJEngg. College	First Prize
3	M Naveenkumar N Govindaraj	29.04.2022	Quiz competition	MPNMJEngg. College	First Prize
4	P.Venkatesh	29.04.2022	Water Jump	M. Kumarasamy College of Engineering	First Place
5	S.Hariprakash	07.05.2022	Auto CAD	Builders Engineering College	First Place
6	V Dharmaraj & S Dharanitharan	07.05.2022	Paper Presentation	Builders Engineering College	Second Place
7	K Saritha & S Tamizharasi	13.05.2022.	Technical Quiz	Excel Engineering College	First Prize
8	V Gokulan	29.05.2022.	Project Presentation	at Shree Venkateshwara Hi-tech Engineering College	Second Prize

Electronics and Communication Engineering

S.No	Name of the Student	Date	Event Name	Venue	Result
1	A.Manoj - II Year	08-04-2022	Mr & Ms Radio Jockey	KPR Institute of Engineering and Technology, Coimbatore (Radio club)	Second Prize
2	A.Manoj - II Year	09-04-2022	Kavithai Poti	KPR Institute of Engineering and	Third Prize



				Technology, Coimbatore (Tamil Mandram)	
3	R.Raja Sibi - I Year	22-04-2022	Charms	Kongu Engineering College, Perudurai	Third Prize
4	C.Pradeep - I Year	22-04-2022	Charms	Kongu Engineering College, Perudurai	Third Prize
5	Lithanya.P - II Year	13-08-2019	Paper Presentation	Jansons Institute of Technology	First Prize
6	Santhiya.S - II Year	13-08-2019	Paper Presentation	Jansons Institute of Technology	First Prize
7	R.Harini -I Year	06-09-2019	Treasure Hunt	KSR Institute of Engineering & Technology	First Prize
8	K.Hemadharshini-I Year	06-09-2019	Treasure Hunt	KSR Institute of Engineering & Technology	First Prize
9	Vaidehi Soudikoduthal.J III Year	07-09-2019	Quiz	Karpagam Institute of Technology	First Prize
10	Jawahar.R III Year	07-09-2019	Quiz	Karpagam Institute of Technology	First Prize
11	Mythrei Mahalakshmi.J III Year	07-09-2019	Project Presentation	Karpagam Institute of Technology	Third Prize
12	Vaidehi Soudikoduthal.J III Year	07-09-2019	Project Presentation	Karpagam Institute of Technology	Third Prize
13	Jawahar.R III Year	07-09-2019	Project Presentation	Karpagam Institute of Technology	Third Prize
14	Vaidehi Soudikoduthal.J III Year	07-09-2019	Quiz	Karpagam Institute of Technology	First Prize



15	Varshini Sri.V.H III Year	14-09-2019	ICTACT Youth Talk	Sri Krishna College of Engineering & Technology	Regional Pre finalist
16	Tamilvannan.A III Year	18-09-2019	Project Presentation	Sri Ramakrishna Engineering College	Second Prize
17	Dineshkumar.S.P III Year	18-09-2019	Project Presentation	Sri Ramakrishna Engineering College	Second Prize
18	Eswaran.M III Year	18-09-2019	Project Presentation	Sri Ramakrishna Engineering College	Second Prize
19	Sudharsan.S IV Year	21-09-2019	Tower Building	Firebird Institute of Research Management	First Prize
20	Meyananth.R IV Year	21-09-2019	Tower Building	Firebird Institute of Research Management	First Prize
21	Dineshkumar.S.P III Year	26-09-2019	Project Presentation	Nandha College of Technology	Second Prize
22	Eswaran.M III Year	26-09-2019	Project Presentation	Nandha College of Technology	Second Prize
23	Arun.U.T -I Year	28-09-2019	Paper Presentation	Velalar College of Engineering And Technology	First Prize
24	Gowtham.R - III Year	28-09-2019	Paper Presentation	Velalar College of Engineering And Technology	First Prize
25	Eraghavendran.M - III Year	28-09-2019	Paper Presentation	Velalar College of Engineering And Technology	First Prize
26	Dharani.S - I Year	04-10-2019	Project Presentation	Bannari Amman Institute of Technology	Third Prize
27	Divyasri.M - I Year	04-10-2019	Project Presentation	Bannari Amman Institute of Technology	Third Prize
28	Gowshik.B- I Year	04-10-2019	Project Presentation	Bannari Amman Institute of Technology	Third Prize



Electrical and Electronics Engineering

S.No	Name of the Student	Date	Event Name	Venue	Result
1	N. Dhivya -II Year	19-05-2022	Paper Presentation	Nandha Engineering College	First Prize
2	N. Dhivya -II Year	28-05-2022	Paper Presentation	Shree Venkateshwara Hi-Tech Engineering College	First Prize
3	G.Kowsalya-III Year	29-09-2021	Circuit Debugging	Nandha Engineering College	Third Prize
4	E.R.Jeevanandham-III Year	15-07-2021	TECH-A- MONTH 2.0	Youth United Council Of India	Second Prize
5	E.R.Jeevanandham-III Year	19-05-2022	Paper Presentation	Nandha Engineering College	Third Prize
6	S.Vivek-I Year	19-05-2022	Paper Presentation	Nandha Engineering College	Third Prize
7	C.Eneya Sri- I Year	19-05-2022	Paper Presentation	Nandha Engineering College	First Prize
8	R.Divyarani- III Year	04-09-2020	Paper Presentation	Hindusthan College Of Engineering And Technology	Second Prize
9	S.P.Madhuppranesh-III Year	03-10-2020	Symposium	Kongu Engineering College	First Prize
10	R.Sharmila- III Year	03-10-2020	Symposium	Kongu Engineering College	First Prize
11	S.P.Madhuppranesh-III Year	13-02-2021	Symposium	Kongu Engineering College	Second Prize
12	R.Sharmila- III Year	13-02-2021	Video Log	Kongu Engineering College	First Prize



13	R.Divyarani- III Year	28-03-2021	Symposium	College Of Engineering Guindy	First Prize
14	S.Premnath- III Year	14-02-2021	Quiz	PSG College Of Technology	Second Prize
15	R.Divyarani-II Year	02-02-2020	Hackathon	Smart India Hackathon	Fourth Prize
16	R.Divyarani-II Year	22-02-2020	Circuit Debugging	Dr NGP Institute Of Technology	Second Prize
17	S.Premnath-II Year	22-02-2020	Circuit Debugging	Dr NGP Institute Of Technology	Second Prize
18	R.Sharmila-II Year	10-03-2020	Paper Presentatio N	Kongu Engineering College	First Prize
19	S.P.Madhuppranesh-II Year	10-03-2020	Paper Presentatio N	Kongu Engineering College	First Prize
20	R.Divyarani-II Year	04-03-2020	Project Exhibition	Mahendra Engineering College	Second Prize
21	S.Premnath-II Year	04-03-2020	Project Exhibition	Mahendra Engineering College	Second Prize
22	S.Dineshkuma R- II Year	04-03-2020	Project Exhibition	K.S. Rangasamy College Of Technology	Second Prize
23	T.Dhiyanesh- II Year	04-03-2020	Project Exhibition	K.S. Rangasamy College Of Technology	Second Prize
24	S.P.Madhuppranesh-II Year	11-05-2020	Online Slogan Contest	K.S. Rangasamy College Of Technology	First Prize
25	T.Mohanapriya-I Year	21-05-2020	Quiz	Velalar College Of Engineering And Technology	Third Prize



Mechanical Engineering

S.No	Name of the Student	Date	Event Name	Venue	Result
1	Mukesh Kumar G	06-05-2022	CAD Modeling	Kongu Engineering College	Second Prize
2	Kamalnath K	20-05-2021	Paper Presentation	Sengunthar Engineering College	Second Prize
3	Manikandan R	27-09-2019	Poster Presentation	Excel Engineering College	First Prize
4	Manikandan M	19-08-2019	Cad Modeling	Jansons Institute Of Technology	Second Prize
5	Manikandan M	19-08-2019	Project Presentation	Jansons Institute Of Technology	First Prize

9.7.2 Extra-Curricular activities

Annual activities:

TABLE B 9.7.2a Summary of Annual activities

S.No	Events	Participants	Remarks
1	Innovation Day	Students from various schools and Engineering college	Best innovative project selected and necessary steps are taken to convert into marketable products.
2	National Conference	Students from Engineering Institutions	Selected papers will be published in Reputed Journals.
3	Sports Day	All students from Nandha Engineering College	Best students are selected to participate in various District/National Events.
4	Annual Day (Rhythm)	All students from Nandha Engineering College	To improve the Students Empowerment, apart from academics.





FIGURE B 9.7.2a Sports Day Celebration

Availability of sports facilities:

TABLE B 9.7.2b List of indoor/Outdoor games available in the campus

S. No	Name of the sport facility	Numbers available
1	Volley Ball	3 courts
2	Cricket	1 ground and 2 nets
3	Foot ball	1 field
4	Hockey	1 field
5	Kabaddi	2 courts
6	Badminton	4 courts
7	Table Tennis	3
8	Carom, Chess	10 boards
9	Basket Ball Court	1
10	Track and Field	400mts/6 lanes
Other activities like yoga		

TABLE B 9.7.2c Achievements in sports activities

Biomedical Engineering

S.No	Name of the Student	Date	Event Name	Venue	Result
1	R.AAKASH	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-52	SECOND
2	M.ARUL	04.06.2022	KABBADI	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-55	SECOND



NANDHA

ENGINEERING COLLEGE (Autonomous)

3	K.BHARATHI	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-57	SECOND
4	K.BHARATHI	04.06.2022	KABBADI	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-58	SECOND
5	R.J.BRIGHTON DANIEL	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-59	SECOND
6	M.DEVAPRASATH	04.06.2022	KABBADI	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-61	SECOND
7	S.DHARANEESH	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-62	SECOND
8	P.GAYATHRI	04.06.2022	KHO-KHO,	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-64	FIRST
9	P.GAYATHRI	04.06.2022	RELAY - 4 X 400, 400	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-65	SECOND
10	B.HARIHARAN	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-68	SECOND
11	N.MAHARAJA	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-70	SECOND
12	M.MOHAMED ABUBAKKAR SIDDIQ	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-71	SECOND
13	M.MOHAMED ABUBAKKAR SIDDIQ	04.06.2022	KABBADI	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-72	SECOND
14	S.MOHAMED HUSSAIN	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-73	SECOND
15	S.MOHAMED HUSSAIN	04.06.2022	KABBADI	NANDHA ENGINEERING COLLEGE	SECOND



				(AUTONOMOUS), ERODE-74	
16	K.RAMANIKA	04.06.2022	KHO-KHO	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-76	FIRST C
17	C.SANJAY KUMAR	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-78	SECOND R I
18	C.SANJAY KUMAR	04.06.2022	KABBADI	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-79	SECOND T E
19	N.SANJAY KUMAR	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-80	SECOND R I
20	N.SANJAY KUMAR	04.06.2022	KABBADI	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-81	SECOND O N
21	N.SANTHOSH	04.06.2022	KABBADI	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-82	SECOND
22	S.SUSVINTH	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-84	SECOND 9
23	A.YASAR ALI	16.11.2021	CRICKET	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-88	SECOND
24	A.YASAR ALI	04.06.2022	KABBADI	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-89	SECOND
25	K. SWATHI	2022	SHOTPUT	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-89	THIRD
26	MAHESWARAN.N	29.12.2019	KABBADI	NEHRU YUVA KENDRA, CHENNAI	SECOND
27	INDHUMATHI.O.D	2020	KHO-KHO	NANDHA ENGINEERING COLLEGE (AUTONOMOUS), ERODE-89	THIRD



Electronics and Communication Engineering

S.No	Name of the Student	Date	Event Name	Venue	Result
1	Srikanth M - IIIYear	Not Available	Bodybuilding	Anna University Sports Tamilnadu Level	Sixth
2	Madavan K- IIIYear	Not Available	Kabaddi	Mg Sports Club	Fourth
3	Mohanraj K- IIIYear	Not Available	Kabaddi	Mg Sports Club	Fourth
4	Madavan K- IIIYear	Not Available	Kabaddi	Mg Sports Club	Winner
5	Mohanraj K- IIIYear	Not Available	Kabaddi	Mg Sports Club	Winner
6	Archana A T- II Year	Not Available	100mts	Nandha Engineering College	Second
7	Archana A T - II Year	Not Available	400mts	Nandha Engineering College	Third
8	Archana A T - II Year	Not Available	4*100 Relay	Nandha Engineering College	Second
9	Jana M - II Year	Not Available	4*100 Relay	Nandha Engineering College	Third
10	Jana M - II Year	Not Available	4*400 Relay	Nandha Engineering College	Third
11	Sowndhar P - III Year	Not Available	4*400 Relay	Nandha Engineering College	Third
12	Praveen M - I Year	Not Available	4*400 Relay	Nandha Engineering College	Third
13	Praveen M - I Year	Not Available	800 Mts	Nandha Engineering College	First
14	Praveen M - I Year	Not Available	4*100 Relay	Nandha Engineering College	Third
15	Sobika R - II Year	Not Available	400mts	Nandha Engineering College	First
16	Sathya R - III Year	Not Available	4*100 Relay	Nandha Engineering College	Second
17	Kiruthika B -IV Year	Not Available	4*100 Relay	Nandha Engineering College	Second
18	Santhiya S - II Year	Not Available	4*100 Relay	Nandha Engineering College	Second
19	Santhiya S - II Year	Not Available	800mts	Nandha Engineering College	First
20	Hari Priya M - I Year	Not Available	4*400 Relay	Nandha Engineering College	First
21	Indhu V J - II Year	Not Available	4*400 Relay	Nandha Engineering College	First
22	Sobika R - II Year	Not Available	4*400 Relay	Nandha Engineering College	First



23	Mehala B - II Year	Not Available	4*400 Relay	Nandha Engineering College	First
24	Sobika R - II Year	Not Available	High Jump	Nandha Engineering College	First
25	Santhiya S - II Year	Not Available	Chess	Nandha Engineering College	Runner
26	Shanmuga Priya K – II Year	Not Available	Chess	Nandha Engineering College	Runner
27	Poornima M - II Year	Not Available	Chess	Nandha Engineering College	Runner
28	Madavan K - II Year	Not Available	Kabaddi	Anna University Sports Board	Runners
29	Nandhini A - III Year	19-01-2020	Throwball	36th Senior State Throw Ball Championship	First
30	Nandhini A - III Year	21-02-2020	Throwball	42nd Senior National Throw Ball Championship	Winner
31	Nandhini A - III Year	08-12-2019	Rural Olympic	4th National Rural Olympic Games	Best Coach
32	Nandhini A - III Year	20-11-2019	Throwball	South Zone National Throwball Championship	Best Player
33	Nandhini A - III Year	05-10-2019	Basket Ball	State Championship	Winner
34	R.Vikram - III Year	18-02-2020	Volley Ball	District Level Chief Minister Trophy	Third
35	R.Vikram - III Year	08-01-2020	Volley Ball	JCI Erode Centenary Rolling Trophy	Participated

Electrical and Electronics Engineering

S.No	Name of the Student	Date	Event Name	Venue	Result
1	C.ENEYA SRI- I Year	27.04.2021	THROW BALL	Nandha Engineering College	First Prize





FIGURE B 9.7.2b Annual Day Celebration

Every year NEC celebrates Science Day to spread the message of importance of science and its application among the students. This day is celebrated with following purposes:

- To widely spread a message about the significance of scientific applications in the daily life of the people,
- To display all the activities, efforts and achievements in the field of science for welfare of human being,
- To discuss all the issues and implement new technologies for the development of the science,
- To encourage the students as well as popularize the Science and Technology.



FIGURE B 9.7.2c Science Day

In order to provide access to quality educational books to students, the college came up with the Mission of Million Book donation. It aims at educating young India by cultivating reading habits among children and provides access to quality reading material.



FIGURE B 9.7.2d Book Donation

World Students' Day is celebrated annually on 15 October on the birth anniversary of Dr. A.P.J. Abdul Kalam. It inspires millions of youth through his works, achievements, books, lectures, etc and always to be remembered.



FIGURE B 9.7.2e Kalam Day

Motivation plays a key role to become successful in life. We reach our goals or not. This rings true to all people regardless of their status, profession or age. We cannot achieve much without the determination to reach our goals no matter how big or small they are.

Learning institutions serve as the training ground for future leaders, and as a training ground which is the cornerstone of democracy it is deemed to have crucial role in instilling the sense of determination to the students.



FIGURE B 9.7.2f Motivational Speech – Students Induction Program

Recreation consists of activities or experiences carried on within leisure, usually chosen voluntarily by the participant – either because of satisfaction, pleasure or creative enrichment derived, or because he perceives certain personal or social values to be gained from them. It may, also be perceived as the process of participation, or as the emotional state derived from involvement. In the current scenario, the best place to include recreational activities in one's life is one's place of education rather than at home. This not only provides a chance to include recreations in one's life, but also helps students to socialize and become less dependent on one's parents.



FIGURE B 9.7.2g Recreation Day

Army Day is celebrated on January 15 every year to commemorate the day when (then) Lieutenant General KM Cariappa took over General Sir Francis Butcher as Commander-in-Chief of India on January 1949.

The day is celebrated to honor our country's soldiers who set the greatest example of selfless service and brotherhood, and above all, love for the country.



FIGURE B 9.7.2h Tribute to - 'Soldiers Day'

To sensitize the voters about the importance of participation in an electoral process and to ensure a responsive, accountable and democratically elected Government of India has decided to celebrate January 25 every year as 'National Voters' Day'



FIGURE B 9.7.2i Voter Awareness Day

A Hackathon (also known as a hack day, hack fest or code fest) is a design sprint-like event in which computer programmers and others involved in software development, including graphic designers, interface designers, project managers, and others, often including domain experts, collaborate intensively on software projects.

The goal of a Hackathon is to create usable software or hardware with the goal of creating a functioning product by the end of the event. Hackathons tend to have a specific focus, which can include the programming language used, the operating system, application PROGRAM INTERFACE or the subject and the demographic group of the programmers.



FIGURE B 9.7.2j Hackathon

It is to explore innovative ideas, methodologies and technologies in local groups in general and tribal communities in particular. To organize seminar, conferences, workshops, exhibitions relating to innovations and to develop an innovative and entrepreneurial mindset.



FIGURE B 9.7.2k I-Club MSME

9.7.3 Club Activities:

Various club activities are organized for students to enrich the personality and character development. the students have actively participated in various club forums such as NSS, road safety, YRC, Carrier Oriented Club, tree plantation, cultural and music, fine arts, photography, trekking, women's club, sports etc., Club aims to bring out the hidden talent of students in various activities.

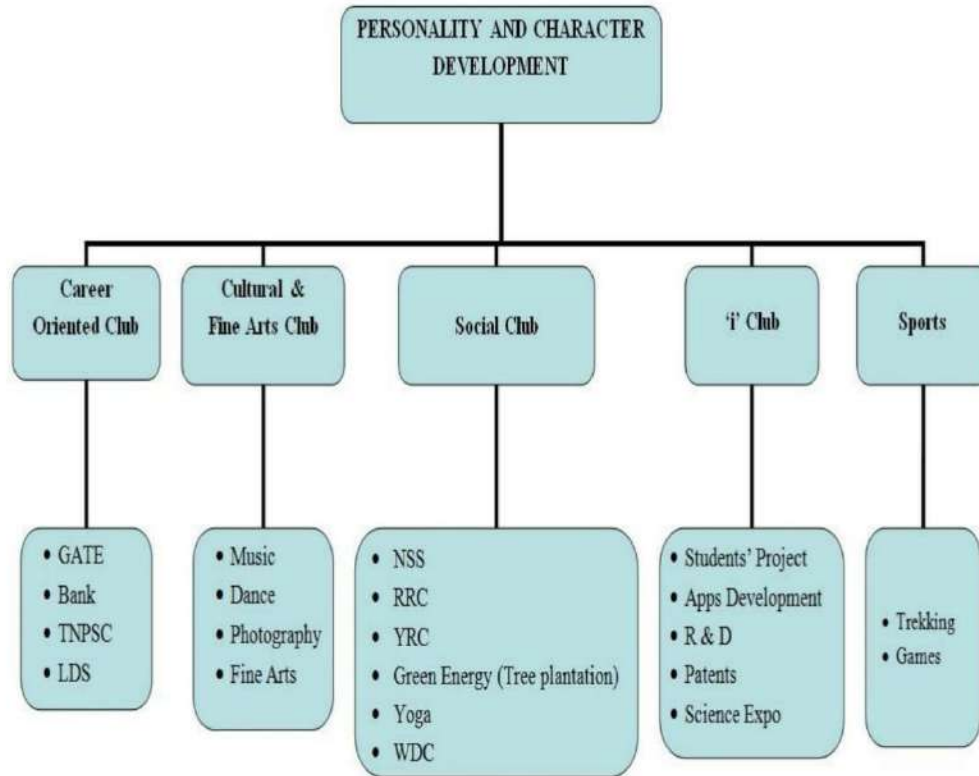


FIGURE B 9.7.3a Club Activities

TABLE B 9.7.3a Year wise Coordinators Details

S.No.	Name of the Club	I Year - Coordinators	II Year - Coordinators	III Year- Coordinators
1	Road Safety Club	Mr Ravivarman AP/Physics Ms.Jeyanthi AP/Chem	Mr Ravichandran V AP/EEE Mr Rajkumar M AP/Mech	---
2	Cultural Club	---	Ms Vanitha P AP/CSE	Ms Brindha S AP/ECE
3	Debate Club	---	Mr Kathirvel N AP/English	---
4	Fine Arts Club	---	Ms Suganya AP/IT	Ms SugunaAngamuthu AP/IT
5	Tree Plantation Club	Mr Arul Karthick E K AP/ECE Ms Mythili AP/English	Mr Karthi A AP/Mech Ms Tharanya S AP/Civil	Mr Amarthnathprabhakaran A AP/ECE Ms Pradeepa C AP/EEE
6	Music Club	---	---	Ms Senthamarai. M AP/CSE

7	NSS Club	Mr Sambathkumar M AsP/Mech Ms Santhiya AP/Chemical Ms Priyadharsini AP/Maths	Mr Velliangiri G AP/Mech Mr Krishnagandhi AP/EEE Ms Sumathi N AP/CHEMICAL	Mr Muruganantham S AP/Mech Ms Kavitha P AP/ECE
8	Photography Club	---	Mr Premkumar P AP/ECE Mr.Manikandaprabhu.N AP/ECE	Dr Sadagoban K Chief Librarian
9	Sports Club	Mr Satheeshkumar AP/ECE Ms Suganthi AP/ENG	Mr Jeyakumar AP/EEE Mr Rajasekaran K AP/CHEMICAL	Mr Manimaran . V AP/CSE Ms Shanmugapriya K AP/CSE
10	Trekking club	Mr Joe Adaikalaraj AP/Physics Ms Dhivya AP/ English	Ms Devi P AP/Maths Ms SapthikaParthi P AP/EIE	Mr Kathirvel N AP/English Mr Saravanan AP/ English
11	YRC Club	MS Amuthaprabha. J ASP/Maths Mrs.Megala A AP/ Maths	Ms Amutha R AP/ Maths	Mr Jagan AP/ Maths

Road Safety Club:

Objectives

- To improve the measures of effectiveness of road safety Education
- To develop skills among the students for interacting with various traffic situations.
- To assist in the enforcement of traffic rules.

Outcome

At the end of this course, the students will be able to

- Aware of road safety rules and traffic control
- Tuneroad safety education programme for the development of Nation.



Activities

- Detecting traffic presence
- Recognizing safe/dangerous locations
- Awareness program about higher studies in Abroad
- Co-ordinating information

Cultural Club:**Objectives**

- To bring out the hidden talent of students in dance
- To develop and enhance the performance of students by participating in various events
- To inculcate managerial capabilities such as event management and stage organization
- Students will develop a series of challenging physical obstacles an individual must navigate usually like running, climbing, jumping, crawling and balancing

Outcome

At the end of this course, the students will be able to

- Take part in various events
- Develop team spirit, leadership and managerial qualities

Activities

- Increase awareness of different movements or body positions
- Develop creativity and imagination by responding to problems in movement or music
- Learn new words and concepts through songs and movement (learning in body parts by sing “Head, Shoulders, Knees, and Toes”).
- Explore the many ways in which a body can move (finding different ways to get to the other side of a line without stepping on it).
- Develop large motor skills (moving to music and participating in other creative movement activities).
- Improve balance, coordination, and rhythm through dancing and other movement activities (playing “Follow the Leader”).
- Improve small motor skills (learning finger plays and playing musical instruments).

Debate Club**Objectives**

- To enhance students' oratory and elocution skills in forums of large audiences.



- To train the students to express themselves eloquently and confidently.

Outcome

At the end of this course, the students will develop the following skills

- Confidence – Belief in themselves and their abilities, and the desire to participate in all classes.
- Curiosity – The passion of discovery through effective tools for research, organization and presentation.
- Critical Thinking – How to explore the world through the lens of an inquisitive mind
- Communication – Oral and written skills and strategies for lively yet respectful discussions and disagreements.
- Control – Eliminate the fears of public speaking.
- Creativity – The desire to explore, create and invent.
- Camaraderie – Meet like-minded peers at tournaments and build healthy bonds of competition.
- Leadership – Self-motivation and the ability to delegate assignments and manage peers.

Activities

- A Four Corners Game
- Card Game
- Quick Debates/ Hat Debates
- Inner Circle/Outer Circle Debate Strategy

Fine Arts Club

Objectives

- To encourage the students in various arts activities
- To improve the imagination skill in Entertainment

Outcome

At the end of this course, the students will be able to

- let their imagination run wild and provides them with the sight to see things in a different way
- share their prowess in different aspects of art

Activities

- Illumination



- Blind art
- Sketching
- Magic of fingers

Tree Plantation Club

Objectives

- To create interest in tree planting and maintenance.
- Explain the importance of conserving forest
- To improve student outdoor recreational activities

Outcome

- Learners would be able to
- Gets field experience
- Improve the quality of the natural environment through planting trees.
- Student can understand the importance of tree plantation.

Activities

- Tree planting around the village playground
- Find the location of waste water and planting trees to utilizing the waste water
- Tree maintenance
- Awareness program about conserving rain forest
- Giving Saplings to public on their requirement



**FIGURE B 9.7.3b Tree Plantation Club – Tree sapling Plantation by Thiru V. Shanmugan,
Chairman Nandha Educational Institution**

Music Club

Objectives

- To understand type of instruments
- To know about types and sounds of music
- To understand the flow and fast tempo.
- To recognize high and low pitch.

Outcome

- Identify musical teams and instruments
- Able to select different sound format tempo and pitch according th their situation
- Do the replication of existing performance
- Do team work and perform group events

Activities

- General music theory
- Learn the different types of music instruments
- Basics about Guitar
- Basics about Keyboard
- Training classes for drums and vocal



FIGURE B 9.7.3c Students Practicing Piano

Photography Club:

Objectives



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- To create awareness about Camera operations
- To create awareness on shooting methods
- To know using of software and printing for modulation

Outcome

- Operating cameras
- Exposing photos in various environment
- Modulating photos

Activities

- Basics about Cameras: Type, parts and accessories of the Cameras.
- Setting/Exposure.
- Auto: Day light, shade, cloudy, flash, white fluorescent – Manual: Aperture, shutter speed, ISO sensitivity, colour, file formats, histogram.
- Shooting method.
- Photography and Videography – Viewing and exposing.
- Basics about using Photoshop and Printing.



FIGURE B 9.7.3d Photo shoot Practicing

Sports Club

Objectives

- The opportunity to prepare the students for instruction and participation in a wide variety of sports of which one may develop sound, lifelong leisure values

- To develop leadership skills by providing opportunities for students to organize, administer and manage through individual clubs and/or the sports club
- To provide an outlet for advanced participation and competition in a particular sport
- To develop Equity, Diversity, Inclusion and Learning skills
- To develop personal foundations, advising and helping

Outcome

At the end of the course the students can

- Identify the student leadership and self confidence
- Report on skills gained that can benefit them for a lifetime
- Gain experience in organizational leadership, event management and business processes.
- Develop their body both physically and mentally.

Activities

- Indoor games
- Outdoor games
- Conduct intra and inter-meet competition



FIGURE B 9.7.3e Students in Sports club Activities

Women's club:

Objectives

- To organize entertaining and educational activities for development of women.
- Raising awareness about women rights
- To empower women by making they involve in various activities.

Outcome



- The Club allows leadership opportunities and focuses on the concept of students working together.
- Sharing about successful women entrepreneurs
- To get the awareness about women rights and security

Activities

The activities included in this club are:

- Awareness programme towards girl education, issues of women rights etc.
- Women's day celebration
- Medical camp
- Seminar on women rights and security.
- Student competition on women empowerment.
- Regular upload of articles relating to women achievements on notice board.



FIGURE B 9.7.3f Women's Club Activity

Trekking Club:

Objectives

- To create the sense of responsibility, patience and tolerance in the members who can create the same in society in general.
- To enable the trekkers to adjust themselves in new environment with unforeseen eventualities.

- Enhance the skill of the members who learn different activities during their treks and the skill thus learned/developed can be applied in their day-to-day life.
- Opportunities to explore nature and be part of it.

Outcome

- Bodily kinesthetic and naturalist intelligence of the members are improved
- Physical condition of the members and keeping them fit for their routine activities are the members about the purity of nature. They get the chance to see how pure and pollution-free the world has been created and how responsible man has been for not keeping it pure. With such knowledge the members feel their responsibility and would naturally do their utmost to keep the environment around them clean and teach others to do the same.

Activities

- Trekking at hills area
- Forest walk
- Treasure Hunt Hiking
- Rock climbing training camps.



FIGURE B 9.7.3g Trekking at VedhaGiri, Bhavani

National Service Scheme (NSS):

Motto: “Notmebut you”



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ENGINEERING COLLEGE (Autonomous)

With this motto, volunteers take utmost pleasure in serving the needy and the under privileged. The more specific objectives of the National Service Scheme are to arouse the students' social conscience and to provide them with the opportunity to

- Understand the community in which they work
- Understand themselves in relation to their community
- Identify the needs and problems of the community and involve them in problem-solving
- Develop among them a sense of social and civic responsibility
- Develop competence required for group-living and sharing of responsibilities
- Gain skills in mobilizing community participation
- Acquire leadership qualities and democratic attitudes
- Develop capacity to meet emergencies and natural disasters

Activities:

- Plantation of seedlings
- Free Medical Check-up Camp
- Blood Donation Camp
- Eye Testing camp
- Drug Abuse Prevention programme
- Literacy programme
- AIDS Awareness programme
- Career Guidance programme
- Art and Literacy programme



FIGURE B 9.7.3h Glimpses of NSS activities

Yoga:



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A spacious hall is maintained for doing Meditation and Asanas in a lush green peaceful environment. The yoga centre “Temple of Consciousness” was inaugurated by Thiru. SKM. Maeilanandhan and the College, with the aid of Erode Manavalakalai Trust, offers yoga classes for all the students and staff members.



FIGURE B 9.7.3i Yoga Practice

CRITERION 10

GOVERNANCE INSTITUTIONAL SUPPORT AND FINANCIAL



CRITERION 10	GOVERNANCE INSTITUTIONAL SUPPORT AND FINANCIAL RESOURCES	120
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Self Assessment (120)

10.1 Organization, Governance and Transparency (55)

Self Assessment (55)

10.1.1 State the Vision and Mission of the Institute (5)

(5)

Self Assessment (5)

(Vision statement typically indicates aspirations and Mission statement states the broad approach to achieve aspirations)

VISION:

To be a world class Engineering and Management Institution in leading technological and socio-economic development of the country by enhancing the **global competitiveness** of technical manpower and by ensuring **high quality technical education** through dissemination of knowledge, insights and intellectual contributions.

MISSION:

To provide **value-based technical education** and mould the **character of younger generation**.



VISION & MISSION

Vision

To be a world class Engineering and Management Institution in leading technological and socio-economic development of the country by enhancing the global competitiveness of technical manpower and by ensuring high quality technical education through dissemination of knowledge, insights and intellectual contributions.

Mission

To provide value-based technical education and mould the character of younger generation.

Vision and Mission of the Institute from the Academic Year 2022 – 2023 onwards.

VISION:

To be an Institute of excellence providing quality Engineering, Technology and Management education to meet the ever-changing needs of the society.

MISSION:

- To provide quality education to produce ethical and competent professionals with social Responsibility.
- To excel in the thrust areas of Engineering, Technology and Entrepreneurship by solving real-world problems.
- To create a learner centric environment and improve continually to meet the changing global needs.

The screenshot shows the website header for Nandha Engineering College. The header includes the college logo, name, and accreditation details. The main navigation menu lists: Home, About us, Academics, Admission, Research, IQAC, Library, Placement, Facilities, Gallery, COE, Contact us, and Feedback. The page title is "Vision & Mission".

Vision
To be an Institute of excellence providing quality Engineering, Technology and Management education to meet the ever changing needs of the society.

Mission

- To provide quality education to produce ethical and competent professionals with social Responsibility.
- To excel in the thrust areas of Engineering, Technology and Entrepreneurship by solving real- world problems.
- To create a learner centric environment and improve continually to meet the changing global needs.

Figure B.10.1.1a Vision and Mission statements in College Website

10.1.2 Availability of the Institutional Strategic Plan and its effective Implementation and

Monitoring

(25)

Self Assessment (25)

Nandha Engineering College, established in the year 2001, has turned out with 7000+ alumni who are spread over the world riding a successful career path. The college offering 12 UG programs and 6 PG programs with 3 Research Centre ably contributing to the R&D pursuits besides complementing the teaching-learning process, the institution has grown from strength to strength in imparting quality technical education.

Since 2013, the college has been functioning as an autonomous institution as approved by the University Grants Commission (UGC) which has enabled the institution to bring changes in the curriculum and syllabi with emphasis on employability skills needed for the industries. The college has also received extension of autonomy in the year 2018.

The college has adapted Outcome Based Education (OBE) from the academic year 2015-16 onwards. It resulted in changes in regulations, inclusion of open elective system, blending of theory with practice through embedded courses, besides introducing, add/drop course options for the students enabling them to study the courses well in advance and provides opportunity to pursue internships in the final semesters.

Considering the dynamic transformation of Higher Education in terms of Expansion, Enrolment, Quality and Access, NEC would like to position itself in the top100 Engineering Institutions at National level. To accomplish the same, the institution has evolved the following strategies in Governance, Teaching-Learning process, Quality and Ranking, R&D, Faculty Development, Student Care and Stakeholder participation.

Governance: Governance has always been centered on quality of education, philanthropy, quality of campus life for students, encouraging the student pursuits towards holistic development conforming to the Vision and Mission of the College.

Teaching-Learning: Periodical revision of curriculum, introduction of one credit courses (taught by industries) and systematic evaluation are areas focused on, besides continuous up gradation of equipment, software and machineries.

Quality and Ranking: All performance parameters involved in NAAC, NBA, NIRF etc. have been integrated to the academic process to ensure performance in any area earns credit for the individual or department. This in turn has been well supporting in the Quality and Ranking processes.

R&D: Workshops, invited lectures are regularly organized to motivate faculty members to prepare proposals for funding and involve them in active research, besides in encouraging all outcomes. This has resulted in good number of publications, few major grants in the recent past.

Student Care: Consistently improving the in-house facilities for students, like library, hostel, dining, cafeteria or sports facilities. 21 Student clubs forum are functioning in the campus to promote co-curricular and extra-curricular activities.

Stake-holder involvement: Parents, experts from Industry and R&D institutions, and motivational speakers are periodically invited to the campus for interactive, statutory and non-statutory meetings where their views are thoroughly heard and included in the future plans. Academic progresses of students are regularly communicated to the parents for ensuring their active support in improving the all-round performance of their wards.

Strategic Plan 2021-2026

The Institute's Strategic Committee was constituted in 2015 followed by revised committee in 2021 with key Institute leaders and faculty representatives and stock holders. The list of members in the committee is given below.

Table B.10.1.2a List of Institute's Strategic Committee Members

Sl.No.	Members	Representation
1	Dr. N. Rengarajan, Principal, Nandha Engineering College.	Chairperson
2	Dr. S. Arumugam, Chief Executive Officer, Nandha Educational Institutions.	Member
3	Dr. M. Easwaramoorthi, Professor & Head, Department of Mechanical, Nandha Engineering College.	Member
4	Dr.S.Kavitha, Professor & Head, Department of ECE, Nandha Engineering College.	Member
5	Dr. E.K. Mohanraj, Professor & Head, Department of Civil Engineering, Nandha Engineering College.	Member
6	Dr. C.N. Marimuthu, Professor, Research & Development, Nandha Engineering College.	Member
7	Dr. D.Vanathi, Professor & Head, Department of Computer Science Engineering, Nandha Engineering College.	Member
8	Dr. G. Ramani, Professor & Head, Department of Electrical & Electronics Engineering, Nandha Engineering College	Member
9	Mr.Venkateswaran Doraisamy Partner – Venbro Polymenrs, Bhavani Main Rd, Erode, Tamil Nadu 638004	Member - Industry
10	Dr S. Syath Abuthakeer, Associate Professor, Dept. of Mechanical Engineering, PSG College of Technology, Coimbatore.	External Member
11	Mr. S. Muruganandham	Member – Representing Alumni

The strategic committee prepared a strategic plan for the year 2021-2026 in line with the vision and mission of the institute. The following goals have been identified and given special emphasis in the strategic plan of 2021-2026.

Table B.10.1.2b Strategic plan and actions of 2016-2021

S.No.	Plan	Target	Actions
1.	Strengthening of research publications	By 2016	Progress of research publications year wise 2017-18: 15 2018-19: 30 2019-20: 39 2020-21: 17 2021-22: 35
2.	Establishing Centre of Excellence (CoE)	By 2017	Established Centre of Excellence MECH, ECE, CSE & IT
3.	Improving research activities by leveraging the grant-in-aid of external funding agencies	By 2016	Progress of grant received year wise 2017-18: 4542526 2018-19: 3485875 2019-20: 2172254 2020-21: Nil 2021-22: 1562500
4.	Improving industrial consultancy works	From 2016	Progress of industrial consultancy works year wise 2018-19 : 564937 2019-20 : 326780 2020-21 : 299000 2021-22: 608000
5.	Introducing new programs	By2016	Two new programs namely B.E Computer Science Engineering (Internet of Things) and B.E Computer Science Engineering (Cyber Security) have been approved by AICTE from the academic year 2022-2023.
6.	Active involvement of faculty in industry interaction: FINE (Faculty Industry Education)	By 2016	To provide training to faculty through FINE
7.	Creating awareness about IPR for faculty and student members Encouraging filing of IPRs (Patent & Copyright)	By 2017	To organizing IPR and copyrights related workshops Copyright:37 Patent:46
8.	Quality improvement through Accreditation	By 2021	CSE, ECE and IT Programs were accredited by NBA from June 2021.

Further to enhance the quality of progress short and long-term targets have been set and new strategic plan for 2021 -2026 is prepared:

- To position the institution at top 150 list of National Institutional Ranking Framework (NIRF) by 2023.
- Improving the number and value of project grants to 50 Lakhs by 2022 and 1 Crore by 2026.
- To increase the number of publications in SCI journals.
- Ensuring 50% of the faculty members have Ph.D. before 2026.
- Ensuring all eligible departments to become Research Centres before June 2025.
- Ensuring each department files 2 patents and 5 copyright per year with effect from AY 2022- 23.
- To have strategic partnership with foreign institutions for R&D, faculty and students exchange for internships and collaborative research.

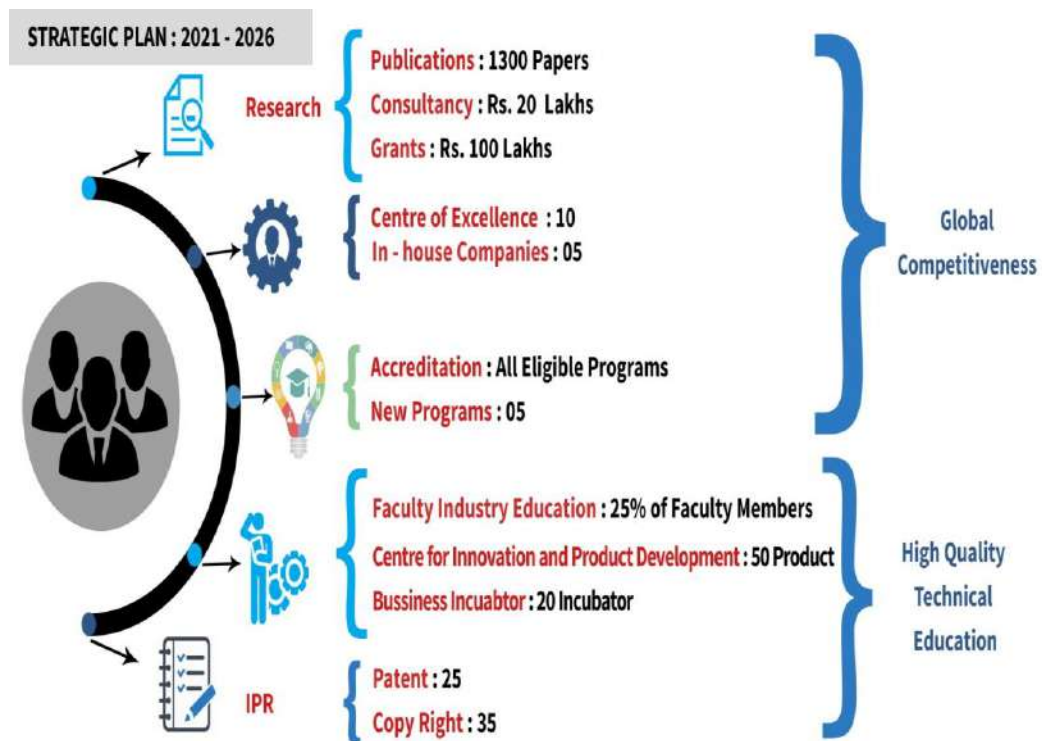


Figure B.10.1.1a. Strategic plan

10.1.3 Governing body, administrative setup, functions of various bodies, service rules, procedures, recruitment and promotional policies. (10)

Self Assessment (10)

List the governing, senate, and all other academic and administrative bodies; their memberships, functions, and responsibilities; frequency of the meetings; and attendance therein, in a tabular form. A few sample minutes of the meetings and action-taken reports should be annexed. The published rules including service rules, policies and procedures; year of publication shall be listed. Also state the extent of awareness among the employees/students.

Table B.10.1.3a gives the list of Governing Council members of Nandha Engineering College is given below

Table:B.10.1.3a List of Governing Body Members

Sl. No.	Members	Representation
1	Thiru.V. Shanmugan, B.Com Chairman, Sri Nandha Educational Trust	Management
2	Mrs. S. Banumathi, Member, Sri Nandha Educational Trust	Management
3	Thiru S. NandhaKumar Pradeep M.B.A, Secretary, Sri Nandha Educational Trust	Management
4	Thiru S. Thirumoorthi B.P.T. Secretary, Nandha Educational Institutions	Management
5	Dr. S. P. Viswanathan, Advisor, Nandha Educational Institutions	Management
6	Dr. S. Arumugam, Chief Executive Officer, Nandha Educational Institutions	Management
7	Dr. J. Senthil, Professor & Director, Department of Computer Science & Engineering, Nandha Engineering College, Erode	Management

8	Dr. C.N. Marimuthu, Professor & Dean (R & D), Department of Electronics and Communication Engineering, Nandha Engineering College, Erode	Faculty Nominated by Principal
9	Mr. R. Thiruneelakandan, Assistant Professor, Dept. of Science and Humanities, Nandha Engineering College, Erode	Faculty Nominated by Principal
10	i). Mr. P.B. Kotur, General Manager & Global Head Higher Education, Wipro Limited. ii). Mr. V. Madhukar, Director - HR, Intersnack Cashew India Private Ltd., Tuticorin.	Industry Nominees
11	Prof. (Dr.) Maya Ingle, Professor, School of Computer Science Information Technology Devi Ahilya Vishwavidyalaya, Indore - 452 001	UGC Nominee
12	Dr. D. Padmini, Professor, Department of Civil Engineering, Government College of Engineering, Bodinayakkanur, Theni, Tamil Nadu.	State Government Nominee
13	Dr. K. Kalaichelvan, Professor & Head, Department of Ceramic Technology, ACT Campus, Anna University, Chennai	University Nominee
14	Dr. N. Rengarajan, Principal, Nandha Engineering College, Erode	Ex-officio Member
Frequency of meeting and date of last meeting		Twice in a year 29.10.2022

NANDHA ENGINEERING COLLEGE, ERODE – 638 052
(An Autonomous Institution, Affiliated to Anna University Chennai and
Approved by AICTE New Delhi)

Minutes of the 9th meeting of the Governing Body held on 29.10.2021

Name of the Body	Governing Body
Meeting No.	9
Date & Time	29.10.2021, 11.00 A.M
Venue	Online



NANDHA ENGINEERING COLLEGE, ERODE – 638 052

(An Autonomous Institution, Affiliated to Anna University Chennai and approved by AICTE, New Delhi)

Minutes of the Meeting (MoM)**9th Governing Body held on 29th October 2021**

The ninth meeting of the Governing Body of Nandha Engineering College was held on 29.10.2021 at 11.00 am by online. The list of members attended the meeting is enclosed in Annexure I.

The Governing body considered various items in the agenda and the deliberations are detailed below:

9.01	Welcome
	Dr. N. Rengarajan, Principal welcomed all the members
9.02	Confirmation of the minutes of 8 th Governing Body Meeting held on 12.01.2021
Discussion	Dr. N. Rengarajan, Principal presented the minutes of the 8 th meeting of Governing Body (GB)
Resolution	Noted the contents of 8 th GB meeting and approved the MoM
9.03	Report on action taken on the minutes of 8 th Governing Body Meeting (enclosed in Annexure –II)
Discussion	The Action Taken Report (ATR) was placed before the members. GB members appreciated the efforts taken by the Institution to implement the suggestions
Resolution	ATR of the last GB was noted and approved.
9.04	Approval of the minutes of following Academic Council Meetings 1. Special Academic Council held on 01.04.2021. 2. 9 th Academic Council held on 06.09.2021.
Discussion	Dr. N. Rengarajan, Principal presented the following salient points of the minutes of Special Academic Council and 9 th Academic Council meeting. <ul style="list-style-type: none"> • Approval of new program B.Tech., Artificial Intelligence and Data Science • Minutes of Meeting of BoS of all programs • Conduct of online/ offline classes, Continuous Assessment Test, End Semester exams as per the guidelines of Anna University released time to time.
Resolution	Members approved the minutes of Special Academic Council and 9 th Academic Council meeting.
9.05	Approval of the minutes of 11 th Finance committee meeting which was held on 29.09.2021
Discussion	Principal presented the following contents of the 11 th Finance committee meeting minutes <ul style="list-style-type: none"> • CoE Budget estimate approval for 2020-21 • Ratified Budget utilization for CoE section for year 2020-21 • 2020-21 & 2021-22 budget of Nandha Engineering College
Resolution	The GB approved the minutes of the 11 th Finance Committee meeting.
9.06	Faculty Information and Approval of faculty appointments / relieving
Discussion	➤ The lists of Faculty members appointed during 2020-21 and relieved during 2020-21 were presented by the Principal. <ul style="list-style-type: none"> • Faculty members appointed during the academic year 2020-21 : 44



	• Faculty members relieved during the academic year 2020-21 : 20
Resolution	The GB members noted the faculty information and resolved to record the same.
Item 9.07	Affiliation Details and Student Admission details
9.07.01	a. AICTE Extension of Approvals b. Approval of New Programme: B.Tech-Artificial Intelligence and Data Science
9.07.02	Anna University Affiliation
Discussion	<ul style="list-style-type: none"> ➤ Principal presented the Student Admission details for the Academic year 2020-21 and 2021-22. AICTE extension approvals and Anna University affiliation details of 2020-21 for all the Programmes were presented. Further, informed the validity status of CSE, ECE and MECH research centers. The members appreciated for having 3 Research centres and 31 faculty members pursuing Ph.D. ➤ Principal also informed the AICTE approval for New Programme: B.Tech-Artificial Intelligence and Data Science. ➤ Mr. Senthil Kumar Moorthy appreciated the efforts taken by the Institution activities with industries in various forms during the pandemic period. He also suggested to consider the statistics of Govt. exam cleared students and entrepreneurs to motivate the current students. ➤ Dr. J. Senthil, Professor and Director, updated the initiative to enable a portal for grouping alumni and students related to Govt. exams cleared candidates and entrepreneurs. ➤ Dr. D. Padmini, State Govt. Nominee, asked the admission status of new programme (B.Tech-Artificial Intelligence and Data Science), the credits given for Internship activities, details related to Value Added Courses, One Credit Courses, yoga classes, conduction of classes as per guidelines of Anna university during pandemic period and introduction New Academic Regulation. ➤ Principal informed that the admission of AI & DS found to be encouraging and clarified the credits given for Internship activities and One Credit Courses. He explained the conduct of yoga classes and its inclusions in timetable. Further, he told that the New Academic Regulation (R22) will be introduced in the Academic year 2022-23.
Resolution	Noted and recorded the approvals by AICTE and Anna University.
9.08	1. Honours and Achievements. 2. Accreditation: NBA - 3 Programmes
Discussion	<p>Principal has presented the Honors and Achievements of the Institution as given below:</p> <ul style="list-style-type: none"> ➤ 5-star rating by Institution's Innovation Council (IIC) of Ministry of Education, ➤ THE WEEK <ul style="list-style-type: none"> ✓ Ranked 112th among Engineering College in ALL INDIA ✓ Ranked 85th among Private Engineering Colleges in India ✓ Ranked 57th among Top Engineering Colleges – South Zone (including Govt & Private) ✓ Ranked 50th among Top Engineering Colleges – South Zone ➤ DATAQUEST <ul style="list-style-type: none"> ✓ Ranked 65th among Top 100 T Schools in India 2021 (including Govt& Private) ✓ Ranked 53rd among Top Private T Schools in India 2021 ➤ 281 Students have participated and won 11 prizes in various co-curricular events ➤ 15 Students have participated and won 5 prizes in various extra-curricular events



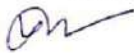
	<ul style="list-style-type: none"> ➤ Secured best ISTE student award including one State level award. ➤ Nandha Engineering College had been honoured with Award of Excellence on Performance Category (2020-21) by PALS in appreciation for participation in PALS, a forum of IIT Alumni :- 480 students and 50 faculty members. ➤ MSME funding for Business Incubation (Rs. 15 lakhs) (Roll and Pull Uprooting Machine) ➤ Placement: IT sector -218 students, Core – 169 students ➤ Dr. S. Arumugam had been awarded the Fellowship Award in 53rd Annual Convention in CSI 2020 from Computer Society of India-2020. ➤ 37 students have participated in Hackathon Program ➤ 12 faculty members got certified as Innovation Ambassadors by MoE, Govt. of India to promote innovations, IPR related activities ➤ College has been allowed to be the Nodal Centre for Toycathon 20-21 ➤ NBA Accreditation: 3 Programmes (ECE, IT and CSE) had been accredited with good scores (Score: 675 above). 2 programmes (Mech and EEE) had uploaded SAR report and awaiting NBA inspections. ➤ Principal narrated the accreditation activities and preparations related to NAAC. <p>Dr. Maya Ingle appreciated the achievements and improvements in various aspects and activities of the college. Further, they congratulated the college academic members for their accreditation achievements and above efforts to ensure college positioning in NIRF ranking and other rankings.</p>
Resolution	Noted and resolved to record the achievements and accreditation activities.
9.09	Co-curricular Activities
Discussion	<p>Principal has presented the details of club activities conducted as a part of "Co-curricular and Extracurricular Activities".</p> <ul style="list-style-type: none"> ➤ Mr. Senthil Kumar Moorthi suggested to give training on Hacherrank type of tools to improve the problem solving skills of students in IT sector. Further he advised to bring the International clubs for engaging students to improve their communication standards and include story telling activities to improve communication skills. ➤ Dr. J. Senthil, Professor and Director, assured to bring International Clubs like Toastmaster Club in upcoming year.
Resolution	Recorded the details of club activities under Co-curricular and Extracurricular Activities
9.10	Academic performance of students
Discussion	Principal presented the details of eligible graduands to receive the degree during the year 2020-21. GB members appreciated the efforts taken for the conduct of exams in the pandemic period.
Resolution	Noted the results.
9.11	Academic Initiatives
Discussion	<p>Principal presented the following academic initiatives and students benefited.</p> <ul style="list-style-type: none"> • One Credit : 13 Courses • Add-On Course : 4 Courses • Course Exemption : 379 out of 736 Students • Internship / Industry Projects : 77 Students • Essence of Indian Traditional Knowledge : 674 students • Human Values : 520 students • Open Elective : 533 Students (Odd) + 265 Students (Even) • Embedded Course : 25 courses • MoUs signed: 4, Industrial visits: 2 and Faculty Industry Education: 12 • Constitution of India : 673 students

	<ul style="list-style-type: none"> • Establishment of Industry sponsored laboratories • IQAC: - AQAR 2020-21 (Annual Quality Assurance Report) • Social activities: COVID awareness programs, Visit to Old age home, Tree plantation, Helmet awareness program, etc. <p>➤ Principal presented the IQAC-AQAR report (2020-21) followed by the explanation of the same by Dr. J. Senthil, Director-IQAC.</p> <p>➤ Dr. Maya Ingle asked the statistics of NPTEL online courses (Faculty and Students certifications). Principal replied that 63 faculty members and 143 students have cleared the courses. He also stated that the students are permitted to earn maximum 3 credits for online courses (per course) depending on the duration of the courses.</p> <p>➤ Dr. Maya Ingle also stressed the importance of introduction and implementation of Life Skills (Jeevan Kaushal) courses like Communication, Career and Universal Human values courses as per UGC guidelines. Principal explained that the initiatives have been made to include various skills related to Life Skills in the form of Personal value courses. Further Life Skills courses and National Education Policies will be included based on the time to time directions of the regulatory bodies.</p>
Resolution	Resolved to approve the IQAC-AQAR report (2020-21) and implement the suggestion.
9.12	Faculty Activities
	R & D: Publications. Faculty Development - Conferences, Workshops & FDPs. Consultancy & Grant in Aid Received.
Discussion	Principal presented the Research policy and R & D details as given below: Details of Journal publications (115), Conferences (36), Workshops & FDPs attended (347 nos.), FDP organized (16 nos.), Consultancy work undertaken (48 nos. Rs.4,46,750 /-) and Grant-in-Aid received (AICTE-RPS: MODROB: 9.14 lakhs, AICTE-STTP: 3.5 lakhs, AICTE-Conference: 1.6 lakhs and DST-SERB funding: 0.5 lakh) during the academic year 2020-21 were presented by Principal. Also highlighted the number of patent (20) and copyright (41) filed up to the academic year 2020-21.
Resolution	Resolved to approve the Research policy and record other activities.
9.13	Vision and Mission
Discussion	Principal presented the vision and mission statements of the Institute and sought suggestions from the GB members. Members suggested to consider the revision of Mission statements.
Resolution	Resolved to consider the suggestions.
9.14	Infrastructure development initiatives
Discussion	Principal explained about the progress of New Auditorium, Diagnostic and Therapeutic lab, Industry supported Lab by Vi-Micro Systems, Virtusa Lab and establishment of Centre of Excellence with Companies (4).
Resolution	Resolved to record the activities.
9.15	Scholarship Schemes
Discussion	Principal presented the merit scholarships awarded by the management. Scholarship amounts sectioned: Rs. 2 crores Number of students benefited: 725 (under various schemes like merit scholarship, single parent scholarship, Alumni scholarship etc.)
Resolution	Noted and appreciated the support of management.



9.16	<p>Any other items :</p> <ul style="list-style-type: none"> ➤ Dr. B.V. Mudgal, University Nominee, enquired the vaccination status of the students and faculty members in the college campus. Dr. J. Senthil replied that most of the students and faculty members have got vaccinated and rest of them will be vaccinated soon. ➤ Principal presented the list of members in the Management Committee of the MSME Business Incubator. GB members approved the Management Committee. ➤ Mr. Senthil Kumar Moorthy highlighted the importance of need of women empowerment, enhancement of the technical leadership among women and maintenance of good female gender ratio in colleges. ➤ Dr. J. Senthil updated some of the initiatives to enhance students skills as follows: <ul style="list-style-type: none"> • Introduction of Hackerrank and Hackerearth have been made as a part of curriculum. • Introduction Examy portal and Pearson self learning tool to enhance students' skills. ➤ Mr. Senthil Kumar Moorthi appreciated the initiatives and efforts in implementing feedbacks and suggestions of GB members.
9.17	<p>VOTE OF THANKS</p> <p>Dr. J. Senthil expressed his sincere thanks to management members, UGC Nominee Prof. (Dr.) Maya Ingle, State Government nominee Dr. D. Padmini, Anna University nominee Dr. B.V. Mudgal, Industry nominees Mr. Senthil Kumar Moorthi, Mr. Lavanam Amballa and other members for their valuable suggestion. Also assured to take suggestions of members forward.</p>

Date: 29.10.2021





 Dr. N. Rengarajan
PRINCIPAL
 Nandha Engineering College
 (Autonomous)
 Erode - 638 052.

Academic Council Members:

The list of Academic Council members of Nandha Engineering College is given in the TableB.10.1.3b.

1. Chairman

Dr. N. Rengarajan	Principal	CHAIRMAN
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2. Heads of Department

S.No	Name	Designation	Department
1.	Dr. P. Sukumar	Head	Bio Medical Engineering
2.	Dr. E.K. Mohanraj	Head	Civil Engineering
3.	Dr. S. Arumugam	Professor	Computer Science and Engineering
4.	Dr. J. Senthil	Professor	Computer Science and Engineering
5.	Dr. D. Vanathi	Head	Computer Science and Engineering
6.	Dr. S. Prabhu	Head	Computer Science and Engineering (Cyber Security)
7.	Dr. E.K. Vellingiriraj	Head	Computer Science and Engineering (Internet of Things) & MCA
8.	Dr. C.N. Marimuthu	Professor	Electronics and Communication Engineering
9.	Dr. S. Kavitha	Head	Electronics and Communication Engineering
10.	Dr. G. Ramani	Head	Electrical and Electronics Engineering
11.	Dr. M. Easwaramoorthi	Head	Mechanical Engineering
12.	Mr. K. Pradeepkumar	Head	Agricultural Engineering
13.	Dr. N. Subramanian	Head	Chemical Engineering
14.	Dr. C. Siva	Head	Information Technology
15.	Mrs. M. Parvathi	Head	Artificial Intelligence and Data Science
16.	Dr. M. Vijayalakshmi	Professor	Chemistry
17.	Dr. V. Manimegalai	Head	MBA

3. Teachers of the College

1.	Dr. M. K. Murthi	Professor	Mechanical Engineering
2.	Ms. P. Kavitha	Assistant Professor	English
3.	Mr. R. Thiruneelakkandan	Assistant Professor	Physics
4.	Mr. P. Jaisankar	Assistant Professor	Mathematics

4. Experts from outside the College

1.	Mr. N. Lakshminarasimhan	Industry expert	General Manager (Personnel & HR), Brakes India Private Ltd., Padi, Chennai – 600 050 lakshminarasimhan.n@brakesindia.co.in
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2.	Mr. N. Meyyappan	Industry expert	Founder and Managing Director, Top Freshers Technologies Private Limited, Poonamallee Road, Ramapuram, Chennai – 600 089 meyyappan@terv.pro
3.	Dr. S. Vasantharathna	Academic expert	Professor and Head, Department of Electrical and Electronics Engineering, CIT, Coimbatore. 9843044109 hodeee@cit.edu.in
4.	Dr. K. Umamaheswari	Academic expert	Professor and Head, Department of Information Technology, PSG College of Technology, Coimbatore. 9443716852 hod.it@psgtech.ac.in

5. Nominees of the University

1	Dr. N. Natchimuthu	Professor and Head	Department of Rubber and Plastic Technology, MIT Campus, Anna University Chennai – 600 044 9444981996 nmuthu@mitindia.edu
2	Dr. K. Ramesh	Professor and Head	Department of Mechanical Engineering, Government College of Technology, Thadagam Road, Coimbatore – 641 013 7598020676 kramesh@gct.ac.in , kasimaniramesh@gmail.com
3	Dr. K. Ruckmani	Professor	Department of Pharmaceutical Technology, University College of Engineering, Bharathidasan Institute of Technology Campus, Anna University, Tiruchirappalli – 620 024 98424 84568, 7708988511 hodpharma@gmail.com

6. Member Secretary

1	Dr. M. Muthukumar	Professor	Mechanical Engineering
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7. Student Member

1	P. Ramji	Student Member	Electronics and Communication Engineering
2	R.B. Nithyasri	Student Member	Computer Science and Engineering
3	K. Guhan	Student Member	Civil Engineering
4	B. Fasima Banu	Student Member	Mechanical Engineering



NANDHA ENGINEERING COLLEGE(Autonomous)

ERODE- 638 052

10th ACADEMIC COUNCIL MEETING

Venue : Board Room, NEC

Date : 20.08.2022 & Time : 10.30 AM

AGENDA

ITEM 10.01	Welcome by the Principal & Introduction of members
ITEM 10.02	Approval of the minutes of Academic Council meeting as follows: <ul style="list-style-type: none"> • 9th Academic Council meeting held on 06-09-2021 & Action taken • 9A Special Academic Council meeting held on 11.04.2022 • 9B Special Academic Council meeting held on 20.04.2022
ITEM 10.03	<ul style="list-style-type: none"> • Review of Vision and mission of the Institute • Review of Vision and mission of the Departments - All Programmes • Approval of the minutes of BoS meeting - All Programmes (for Academic year 2021-22). • Presentation of curriculum and syllabi approved in BoS meeting by Chairperson BoS.
ITEM 10.04	Approval of the new academic regulation R22 (UG and PG) Amendments in Regulation R17 (UG + PG)
ITEM 10.05	<ul style="list-style-type: none"> a) Presentation of results - UG programmes <ul style="list-style-type: none"> • 2020-21 Even and 2021-22 Odd semester results • Degree awarded (FC, FCD, Year wise, Degree wise, Program wise) b) Report of Malpractice committed by the students in internal and end semester examinations. c) R17: List of debarred and rejoined students for UG and PG programmes during 2021-22 R17: Attendance shortage below 65% d) Details of one credit and online courses studied during 2021-22 academic year.
ITEM 10.06	<p>New programme and variation in sanctioned intake (existing programmes)</p> <p>UG:</p> <ul style="list-style-type: none"> • B.E. - Computer Science and Engineering (Cyber Security) • B.E. - Computer Science and Engineering (Internet of Things) • B.E - Mechanical Engineering (variation in intake) <p>PG: Structural, VLSI, ED and CSE (variation in intake)</p>

ITEM 10.07	Accreditation - NAAC & NBA .
ITEM 10.08	<ul style="list-style-type: none">• Review and Approval of Institute Research policy.• Authorize Head of the Institute to receive the funding from various funding agencies.
ITEM 10.09	Any other matter
ITEM 10.10	Vote of Thanks - Dr. M. Muthukumar, Member Secretary.




Principal & Chairman - Academic Council

PRINCIPAL
Nandha Engineering College
(Autonomous)
Erode - 638 052.




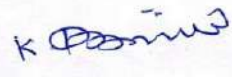





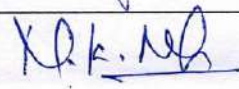
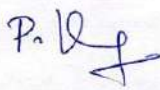



NANDHA ENGINEERING COLLEGE
(Autonomous Institution)
Pitchandampalayam, Erode To Perundurai Road, Erode-638 052

ACADEMIC COUNCIL

Academic Year: 2021-22

INTERNAL MEMBERS

Sl. No.	Members	Representation	Signature
1	Dr. P. Sukumar Professor & Head, Bio Medical Engineering	Head	
2	Dr.E.K. Mohanraj Professor & Head, Civil Engineering	Head	
3	Dr. S. Arumugam Professor, Computer Science and Engineering	Professor	
4	Dr. J. Senthil Professor, Computer Science and Engineering	Professor	
5	Dr. D. Vanathi, Professor & Head, Computer Science and Engineering	Head	
6	Dr. S. Prabhu, Associate Professor & Head, Computer Science and Engineering (Cyber Security)	Head	
7	Dr. E.K. Vellingiraj Professor & Head, Computer Science and Engineering (Internet of Things) & MCA	Head	
8	Dr. C. N. Marimuthu, Professor, Electronics and Communication Engineering	Professor	
9	Dr. S. Kavitha, Professor & Head, Electronics and Communication Engineering	Head	Leave of absence
10	Dr. G. Ramani, Professor & Head, Electrical and Electronics Engineering	Head	

11	Dr. M.Easwaramoorthi Professor & Head, Mechanical Engineering	Head	
12	Mr. K. Pradeep Kumar Professor & Head, Agriculture Engineering	Head	
13	Dr. N. Subramanian Professor & Head, Chemical Engineering	Head	
14	Dr. C. Siva Professor & Head, Information Technology	Head	
15	Ms. M.Parvathi, Assistant Professor & Head, Artificial Intelligence and Data Science	Head	
16	Dr. M. Vijayalakshmi Professor, Department of Chemistry	Professor	
17	Dr. V. Manimegalai Professor & Head, Master of Business Administration	Head	
18	Dr. M.K.Murthi, Professor, Mechanical Engineering	Teacher of the College	
19	Ms. P. Kavitha, Assistant Professor, English	Teacher of the College	
20	Mr. R. Thiruneelakkandan Assistant Professor, Physics	Teacher of the College	
21	Mr. P. Jaisankar Assistant Professor, Mathematics	Teacher of the College	
22	Dr. M. Muthukumar Professor, Mechanical Engineering	Member Secretary	



NANDHA ENGINEERING COLLEGE
(Autonomous Institution)
Pitchandampalayam, Erode To Perundurai Road, Erode-638 052





ACADEMIC COUNCIL

Academic Year: 2021-22

Board	All Programmes	Meeting No.	10
Venue	BOARD ROOM	Date & Time	20 th August 2022, 10.30 am

MEMBERS ATTENDED

Sl. No.	Members	Representation	Signature
1	Dr. N. Rengarajan, Principal Nandha Engineering College (Autonomous) Erode - 638052	Chairman	
2	Dr. N. Natchimuthu, Professor and Head Department of Rubber and Plastic Technology, MIT Campus, Anna University, Chennai – 600 044 Phone: 9444981996 nmuthu@mitindia.edu	University Nominee	 20/08/22
3	Dr. K. Ramesh, Professor and Head, Department of Mechanical Engineering, Government College of Technology, Thadagam Road, Coimbatore – 641 013 Phone: 7598020676 kramesh@gct.ac.in , kasimaniramesh@gmail.com	University Nominee	 20/8/2022
4	Dr. K. Ruckmani, Professor, Department of Pharmaceutical Technology, University College of Engineering, Bharathidasan Institute of Technology Campus, Anna University, Tiruchirappalli – 620 024 Phone: 98424 84568, 7708988511 hodpharma@gmail.com	University Nominee	 20/08/22

Sl.No.	Members	Representation	Signature
5	Mr. N. Lakshminarasimhan, General Manager (Personnel & HR), Brakes India Private Ltd., Padi, Chennai – 600 050 Phone: 9786662031 lakshminarasimhan.n@brakesindia.co.in	Expert from Industry	
6	Mr. N. Meyyappan, Founder and Managing Director, Top Freshers Technologies Private Limited, Poonamallee Road, Ramapuram, Chennai – 600 089 Phone: 9840044969 meyyappan@terv.pro	Expert from Industry	
7	Dr. S. Vasantharathna, Professor and Head, Department of Electrical and Electronics Engineering, Coimbatore Institute of Technology, Coimbatore-641014 Phone: 9843044109 hodeee@cit.edu.in	Expert from Other College (Academic Expert)	
8	Dr. K. Umamaheswari Professor and Head, Department of Information Technology, PSG College of Technology, Coimbatore- 641004. Phone: 9443716852 hod.it@psgtech.ac.in	Expert from Other College (Academic Expert)	

Sl. No.	Members	Representation	Signature
1	P. Ramji	Student	P. Ramji
2	R.B. Nithyasri	Student	Nithyasri R.B.
3	K.Guhan	Student	K. Guhan
4	B.Fasima Banu	Student	B. Fasima Banu



**NANDHA ENGINEERING COLLEGE,
ERODE - 638 052**

(An Autonomous Institution, Affiliated to Anna University Chennai and
Approved by AICTE New Delhi)

MINUTES OF THE 10TH ACADEMIC COUNCIL MEETING

Name of the Body	Academic Council
Meeting No.	10
Date & Time	20.08.2022, 10.30 am
Venue	Board Room, Nandha Engineering College (Autonomous)



NANDHA ENGINEERING COLLEGE, ERODE - 638052

(An Autonomous Institution, Affiliated to Anna University Chennai and approved by AICTE New Delhi)

Minutes of 10th Academic Council Meeting (20th August 2022)

The Tenth meeting of the Academic Council for Nandha Engineering College was held on 20.08.2022 by 10.30 am at Board Room, Nandha Engineering College, Erode. The list of members attended the meeting is given in Annexure I.

	Welcome by the Principal & Introduction of members
ITEM 10.01	Dr. N. Rengarajan, Principal & Chairperson of the Academic Council welcomed all the members and introduced the external members. Further, he requested the internal members to introduce themselves and briefed the agenda items.
ITEM 10.02	Approval of the minutes of Academic Council meeting: <ul style="list-style-type: none"> • 9th Academic Council meeting held on 06-09-2021 & Action taken • 9A Special Academic Council meeting held on 11.04.2022 • 9B Special Academic Council meeting held on 20.04.2022
Discussion	<ul style="list-style-type: none"> • Dr. N. Rengarajan, Principal & Chairman of the Academic Council presented the minutes of the 9th meeting of Academic Council held on 06.09.2021, action taken on the same, 9A Special Academic Council meeting held on 11.04.2022 and 9B Special Academic Council meeting held on 20.04.2022.
Resolution	Noted the contents of the minutes of the 9 th Academic Council meeting held on 06.09.2021, 9A Special Academic Council meeting held on 11.04.2022 and 9B Special Academic Council meeting held on 20.04.2022 and resolved to approve the same. Action Taken Report (ATR) of the 9 th academic council was also noted by the members and approved.
ITEM 10.03	<ul style="list-style-type: none"> • Review of Vision and mission of the Institute • Review of Vision and mission of the Departments - All Programmes • Approval of the minutes of BoS meeting - All Programmes (for Academic year 2021-22). • Presentation of curriculum and syllabi approved in BoS meeting by Chairperson BoS.
Discussion	<p>✓ Principal presented the statements of the vision and mission of the institute and various departments to the Academic Council members for any suggestion from the members. The members suggested the following modifications regarding vision and mission statements of the institute:</p> <ul style="list-style-type: none"> ➤ Dr. N. Natchimuthu (MIT campus) advised to consider the inclusion of word "ever growing or ever changing" in the vision statement. ➤ Mr. N. Lakshminarasimhan (Brakes India) and Dr. K. Ruckmani (Anna University, Tiruchirappalli) suggested to reorder the mission

	<p>statements.</p> <ul style="list-style-type: none"> ➤ Dr. S. Vasantharathna (CIT) and Dr. K. Umamaheswari (PSGCT) appreciated the usage of word "excellence" in the vision statement. <ul style="list-style-type: none"> ✓ All the council members suggested to modify the vision and mission statements of all the departments corresponding to the revised vision and mission statements of the institute. ✓ The Minutes of Board of Studies of all programmes of study were placed for approval. ✓ Presentation of curriculum and syllabi of R22 regulation approved in BoS meeting by Chairperson BoS.
	<p>B.E. Biomedical Engineering (UG) 1st and 2nd Semesters (R22)</p> <p>Dr. P. Sukumar, Head, BioMedical Engineering, presented the curriculum and syllabi. One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ PCB Design ✓ Medical Equipments Trouble Shooting & Calibration
	<p>B.E. Civil Engineering & M.E. Structural Engineering 1st and 2nd Semesters (R22) - UG 1st and 2nd Semesters (R22) - PG</p> <p>Dr. E.K. Mohanraj, Head, Civil Engineering, presented the curriculum and syllabi. One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ Building Bye Laws
	<p>B.E. Computer Science and Engineering (UG & PG) 1st and 2nd Semesters (R22) - PG</p> <p>B.E. Computer Science and Engineering (Cyber Security) - UG 1st and 2nd Semesters (R22) - UG</p> <p>B.E. Computer Science and Engineering (Internet of Things) - UG 1st and 2nd Semesters (R22) - UG</p> <p>Dr. D. Vanathi, Head, Computer Science & Engineering presented the curriculum and syllabi. One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ Microsoft Azure
	<p>B.E. Electronics and Communication Engineering (UG) and M.E. VLSI Design (PG) 1st and 2nd Semesters (R22) - UG 1st and 2nd Semesters (R22) - PG</p>


	<p>Dr. C. N. Marimuthu, Prof. & Dean, Electronics and Communication Engineering briefed the contents of curriculum and syllabi. One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ PCB Design ✓ Embedded System Design using PLC Microcontroller
	<p>B.E. Electrical and Electronics Engineering (EEE) 1st and 2nd Semesters (R22) - UG</p> <p>Dr. G. Ramani, Head, Electrical and Electronics Engineering presented the contents of curriculum and syllabi.</p>
	<p>B.E. Mechanical Engineering (UG) & M.E. Engineering Design (PG) 1st and 2nd Semesters (R22) - UG 1st and 2nd Semesters (R22) - PG</p> <p>Dr. M. Eswaramoorthi, Head, Mechanical Engineering presented the contents of curriculum and syllabi. One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ Advanced Industrial Automation and Robotics ✓ Industrial Automation and Control (Scada & Hmi) ✓ Numerical Modeling of Physical Systems in the Virtual Domain using CFD
	<p>B.Tech. Agricultural Engineering 1st and 2nd Semesters (R22) - UG</p> <p>Mr. K. Pradeepkumar Head, Agricultural Engineering presented the presented the contents of curriculum and syllabi.</p>
	<p>B.Tech. - Artificial Intelligence and Data Science. 3rd and 4th Semesters (R17) - UG 1st and 2nd Semesters (R22) - UG</p> <p>Mrs. M. Parvathi, Head, Artificial Intelligence and Data Science presented the curriculum and syllabi. One Credit Course: (Ratification - R17)</p> <ul style="list-style-type: none"> ✓ R for Data Science ✓ Virtual Reality ✓ Game Programming ✓ Cloud AI Platform
	<p>B.Tech. Chemical Engineering (UG) 1st and 2nd Semesters (R22) - UG</p> <p>Dr. N. Subramanian, Head, Chemical Engineering presented the curriculum and syllabi.</p>
	<p>B.Tech. Information Technology (UG) 1st and 2nd Semesters (R22) - UG</p> <p>Dr. C. Siva, Head, Information Technology presented the contents of</p>

	<p>curriculum and syllabi. One Credit Course: (Ratification - R17) ✓ JQuery and Bootstrap</p>
	<p>Master of Computer Applications (MCA) Program Dr. E.K. Velligiriraj, Head, Master of Computer Applications presented the contents of curriculum and syllabi.</p>
	<p>Master of Business Administration (MBA) Dr. V. Manimegalai, Head, Master of Business Administration presented the contents of curriculum and syllabi.</p>
	<p>Science & Humanities Dr. M. Vijayalakshmi, Professor, Chemistry presented the contents of curriculum and syllabi.</p>
Resolution	<p>Academic council members resolved to approve the following:</p> <ul style="list-style-type: none"> ✓ Vision and mission statements of the institute with the inclusion of their suggestions to get approval in the Governing body ✓ Minutes of 10th BoS Meeting of the programmes (Civil, CSE, ECE, EEE, Mechanical, IT, MCA, MBA and S & H) ✓ Minutes of 6th BoS Meeting of the programmes (Agri and Chemical) ✓ Minutes of 5th BoS Meeting of the programme (Biomedical) ✓ Minutes of 2nd BoS Meeting of the programme, B.Tech. Artificial Intelligence and Data Science, Computer Science and Engineering (Cyber Security) and Computer Science and Engineering (Internet of Things). ✓ Curricula and syllabi for UG and PG of respective programmes (R22) ✓ Curricula and syllabi for UG programme (R17) ✓ One credit courses of respective programmes (R17 ratified)
ITEM 10.04	<p>Approval of the new academic regulation R22 (UG and PG) Amendments in Regulation R17 (UG and PG)</p>
Discussion	<p>Principal presented the new academic regulation R22 for UG and PG programmes and highlighted the salient features of the regulation to the Academic council members. Further, he presented the amendments in regulation R17 (UG and PG). Dr. K. Ruckmani suggested to permit the students to undergo online courses only form standard forums or institutions.</p>
Resolution	<p>Resolved to approve the academic regulations R22 and amendments in regulation R17.</p>
ITEM 10.05	<p>a) Presentation of results - UG & PG programmes</p> <ul style="list-style-type: none"> ➤ 2020-21 Even and 2021-22 Odd semester results ➤ Degree awarded (FC, FCD, Year wise, Degree wise, Program wise) <p>b) Report of Malpractice committed by the students in internal and end semester examinations.</p>

	<p>c) R17: List of debarred and rejoined students for UG and PG programmes during 2021-22 ➤ R17: Attendance shortage below 65%</p> <p>d) Details of one credit and online courses studied during 2021-22 academic year.</p>
Discussion	<p>Dr. S. Arumugam, Professor & CoE presented the results, report of malpractice, list of debarred students, shortage of attendance and one credit and online courses studied during 2021-22 academic year.</p> <p>Further, the discussion regarding the retainment of answer scripts (as hard copies) had been done to reduce the burden of keeping the records of more scripts.</p>
Resolution	<p>The Academic council members suggested to retain the answer scripts for a minimum period of 5 years (last 3 years as hard copies and further 2 years with sample scripts or as soft copies) for UG programmes and 4 years as hard copies for PG programmes. Further, Natchimuthu advised to follow Anna University guidelines regarding the retainment of old answer scripts. If any deviation from the guidelines could be allowed only after approval from Anna University.</p>
ITEM 10.06	<p>New programme and variation in sanctioned intake (existing programmes)</p> <p>UG:</p> <ul style="list-style-type: none"> • B.E. - Computer Science and Engineering (Cyber Security) • B.E. - Computer Science and Engineering (Internet of Things) • B.E - Mechanical Engineering (variation in intake) <p>▪ PG: Structural, VLSI, ED and CSE (variation in intake)</p>
Discussion	<p>Principal informed about the new UG programmes introduced from the academic year 2021-2022 and approvals of AICTE & Anna University regarding the same. He also informed the variations in sanctioned intake of already existing programmes.</p>
Resolution	<p>Resolved to note the details of modifications in intake and new programmes.</p>
ITEM 10.07	<p>Accreditation - NBA and NAAC</p>
Discussion	<p>Principal narrated the accreditation activities and preparations related to NAAC and NBA.</p> <ul style="list-style-type: none"> ▪ NAAC: Peer team visit regarding NAAC Accreditation had been scheduled on 1st week of September, 2022. ▪ NBA applied: 2 UG Programmes - EEE and Mechanical (Committee visit schedule is yet to receive)
Resolution	<p>Members appreciated the efforts by the institution regarding the accreditation activities.</p>

ITEM 10.08	Authorize Head of the Institute to receive the funding from various funding agencies.
Discussion	Approval for authorizing Head of the Institute to receive the funding from various funding agencies as certain funding agencies require the same.
Resolution	Resolved to approve the proposal regarding research and development policy.
ITEM 10.09	Any other items: Nil
ITEM 10.10	Vote of Thanks.
	Dr. M. Muthukumar, Member Secretary proposed the vote of thanks.

Date: 20.08.2022


Principal & Chairman - Academic Council


24/8/22

Board of Studies:

NANDHA ENGINEERING COLLEGE, ERODE – 638 052
(An Autonomous Institution, Affiliated to Anna University Chennai and
Approved by AICTE New Delhi)
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

NEC/EEE/CIR/BOS/2022

Date: 26.07.2022

CIRCULAR

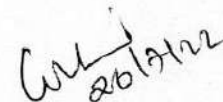
Originator: BoS Chairman(HoD – Electrical and Electronics Engg.)	Circulated to: All faculty members
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Sub: BOS Meeting

The 1st BOS meeting has been scheduled on 30.07.2022 (SATURDAY). In this connection, BOS members of the Electrical and Electronics Engineering Program are requested to attend the meeting and provide their valuable suggestions.

Date & Time of Meeting: 30.7.2022 (11 AM) - Saturday

VENUE:SIMULATION LAB(Block-II)


Dr G.Ramani
CHAIRMAN, BoS/EEE

NANDHA ENGINEERING COLLEGE (Autonomous)
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING
BOARD OF STUDIES
ACADEMIC YEAR:2022-2023

Board	Electrical and Electronics Engineering	Meeting No.	10	R22
VENUE	SIMULATION LAB(BLOCK-II)	DATE&TIME	30.7.2022 & 11 A.M	

LIST OF MEMBERS

Sl. No	Members Name	Representation
1	Dr.G.Ramani, Prof & HOD/EEE	Chairman
2	Dr.Sujatha Balaraman Associate Professor, Dept of Electrical & Electronics Engineering, Government College of Technology, Coimbatore- 641013	University Nominee
3	Dr.C.Govindaraju Assistant professor, Dept of Electrical & Electronics Engineering, Government College of Engineering, Salem -636011	Expert Nominee (Nominated by Academic Council)
4	Dr. J.Devi Shree Associate Professor, Dept of Electrical & Electronics Engineering, Coimbatore Institute of Technology, Coimbatore -641014.	Expert Nominee (Nominated by Academic Council)

5	Mr.M.Jagathaguru Project Lead and Technical Expert Illuminen Technologies, Coimbatore-641035	Member (Expert from Industry)
6	Mr.D.Senthil kumar Senior quality Engineer, Cognizant Technology solution, Nagavara, Banglore-560045	Alumni
7	Dr.M.Siva Ramkumar Associate Professor Dept of Electrical & Electronics Engineering Karpagam Academy of Higher Education,Coimbatore-641021	Expert Nominee (Nominated by Academic Council)
8	Dr.S.Sampath Kumar Associate Professor Dept of Electrical & Electronics Engineering Amrita School of Engineering,Coimbatore-641105	Expert Nominee (Nominated by Academic Council)
9	Dr.P.Jamuna, ASP/EEE	Member
10	Dr.T.Jayakumar, ASP/EEE	Member
11	Mr.M.Prabhu, ASP/EEE	Member
12	Mr.B.Ramraj, AP/EEE	Member
13	Mr.S.Elango, AP/EEE	Member
14	Mrs.C.Pratheeba, AP/EEE	Member
15	Mrs.R.Vijayalakshmi, AP/EEE	Member

16	Mr.V.Arunkumar, AP/EEE	Member
17	Mr.P.Krishnagandhi,AP/EEE	Member
18	Mr.V.Ravichandran, AP/EEE	Member

S. V. Selvam
BOS CO-ORDINATOR

W. J. Sobhan
HOD/EEE

NANDHA ENGINEERING COLLEGE, ERODE – 638 052

(An Autonomous Institution, Affiliated to Anna University Chennai and
Approved by AICTE New Delhi)

Minutes of 10th Board of Studies Meeting (BoS) held on 30.7.2022

The 10th Board of Studies (BoS) meeting was held on 30.07.2022 by 10.00 a.m in Simulation lab (BLOCK-II) at Nandha Engineering College, Erode

Dr. G.Ramani, Chairman (BoS) and Professor & Head, Electrical and Electronics Engineering chaired the meeting, welcomed all the members to the 10th BoS meeting and introduced the members of BoS. After the brief introduction, the agenda items listed below were taken up for discussion and the following resolutions were passed.

BOS - AGENDA	
Item 1.01	Welcome address and Introduction of members.
Item 1.02	Review of the 9 th BOS meeting minutes and ATR
Item 1.03	Review of the PAC and DAB meeting minutes & ATR
Item 1.04	Review of Institute Vision & Mission
Item 1.05	Review of Department Vision, Mission, PEOs and PSOs
Item 1.06	Review of Correlation between the Vision and Mission statement of Institute and Department, correlation between PEOs and POs.
Item 1.07	Review of Curriculum (R22) for B.E/B.Tech programme
Item 1.08	Review of 1 st and 2 nd semester syllabus for B.E/B.Tech programme with CO –PO/PSO Mapping
Item 1.09	Review on analysis of CO- PO/PSO mapping and attainment of R17 Curriculum.
Item 1.10	Review on Attainment target fixed for next batch.

Item 1.11	Review of Curriculum and syllabus (R22) for M.E programme with CO –PO/PSC Mapping.
Item 1.12	Review of R17 Ratification, if any.
Item 1.13	Review of inclusion of PSE courses in R17
Item 1.14	Review of one credit courses
Item 1.15	Review of Panel of Examiners
Item 1.16	Any other matter

BOS – MINUTES OF MEETING	
Item 1.01	Welcome address and Introduction of members.
Discussion	Dr.G.Ramani, Chairman/BoS introduced the members of the Board of Studies
Item 1.02	Review of the 9 th BOS meeting minutes and ATR
Resolution	Resolved to approve the 9 th BOS Meeting and ATR of 9 th BoS meeting.
Item 1.03	Review of the PAC and DAB meeting minutes & ATR
Resolution	Resolved to approve the PAC and DAB Meeting minutes &ATR
Item 1.04	Review of Institute Vision & Mission
Discussion	<p>VISION To be a centre of excellence providing high quality Engineering, Technology and Management education to meet the ever growing needs of the society.</p> <p>MISSION</p> <ul style="list-style-type: none"> • To provide quality education to produce competent professionals and leaders with social responsibility • To excel in research in the field of Engineering, Technology and Management • To be a learner centric environment with continual progress to meet the global needs.
Resolution	Institute Vision and Mission is Approved by Members of Board of Studies
Item 1.05	Review of Department Vision, Mission, PEOs and PSOs
Discussion	<p>Dr.C.Govindaraju Suggested to include the word Multidisplinary in the Vision Statement.</p> <p>VISION To render high quality technical education and research by dispensing extensive knowledge to transform every student in to a competent Electrical Engineer to deploy multidisciplinary approach to serve society and nation.</p> <p>MISSION The Department of Electrical and Electronics Engineering is committed to</p> <ul style="list-style-type: none"> • Empower the students to adapt the latest technologies by providing innovative learning environment • Equip the students with leadership qualities for accepting the challenges in various engineering sectors • Excel in research in the field of Electrical Engineering

Resolution	Resolved and the changes are incorporated in the vision Statement as suggested by Dr.C.Govindaraju.						
Item 1.06	Review of Correlation between the Vision and Mission statement of Institute and Department, correlation between PEOs and POs.						
Discussion	Vision & Mission Components		Dept.	Vision	Mission		
	Institute			To transform the student in to highly competent ethical electrical engineers to serve the society and nation.	To adapt the latest technologies by providing innovative learning environment	Train the students with leadership qualities for accepting the challenges in industry and private sectors.	Excel in research in the field of Electrical Engineering
	Vision	World class Engineering Institute		✓	✓	✓	
		Global competitiveness of technical manpower		✓	✓	✓	✓
		High quality technical education		✓	✓	✓	✓
	Mission	Valued based technical education		✓	✓	✓	✓
		Mould the character of young generation			✓	✓	✓
Resolution	Resolved and good correlation obtained between Vision and mission of Department and Institute was obtained.						
Item 1.07	Review of Curriculum (R22) for B.E/B.Tech programme						
Discussion	Curriculum(R22) was discussed in the BOS meeting and Suggestion						
Resolution	Resolved and Curriculum was modified according to Suggestion given by BOS Members.						
Item 1.08	Review of 1 st and 2 nd semester syllabus for B.E/B.Tech programme with CO –PO/PSO Mapping						
Discussion	SUBJECT NAME: BASIC ELECTRICAL AND ELECTRONICS ENGINEERING (II SEM- CIVIL, CHEMICAL) UNIT – I (ELECTRICAL CIRCUITS & MEASUREMENTS) Dr.J.Devishree advised to remove the Operating Principles of Moving coil and moving iron instruments in unit-I since it was outdated topic.			✓ Topics Removed			
	UNIT-II&III(DCMACHINES&AC MACHINES) Dr.Sujatha Balaraman Suggested to Split the Electrical Machines(UNIT-II) in to DC Machines(UNIT-II) and AC Machines(UNIT-III)			✓ Changed			
	In UNIT II-Single Phase Transformer was removed.			✓ Modified			

	<p>In unit III-Three phase induction motor was included in the Syllabus along with Single phase induction motor.</p> <p>UNIT-IV(SEMICONDUCTOR DEVICES AND CIRCUITS) Dr.C.Govindaraju Suggested to remove Full wave rectifier Topic in unit-IV.</p> <p>UNIT-V(DIGITAL SYSTEMS) Dr.C.Govindaraju Suggested to change title of the topic Binary Addition,Multiplication &Division as Binary Arithmetic .</p> <p>Mr.M.Jagathaguru Suggested to include the applications adder and subtractor.</p> <p>Mr.M.Jagathaguru Suggested to remove reduction of Boolean Expressions</p> <p>SUBJECT NAME:ELECTRICAL ENGINEERING</p> <p>UNIT-III(DC MACHINES)</p> <p>Dr.Sujatha Balaraman Suggested to modify the title of the Induction motor as AC Machines.</p> <p>Dr.Sujatha Balaraman Suggested to include three phase induction motor along with single phase induction motor.</p> <p>UNIT-V(ELECTRIC DRIVES) Mr.D.Senthil kumar Suggested to include Case study (Drive system for paper mills) and Speed control of DC drives.</p> <p>SUBJECT NAME:ELECTRIC CIRCUIT THEORY(EEE)</p> <p>UNIT-I(BASIC CIRCUIT ANALYSIS) Mr.M.Jagathaguru Suggested to modify Mesh current and Node voltage method of analysis for DC Circuits Topic name to Mesh and nodal analysis For D.C Circuits.</p> <p>UNIT III(AC CIRCUITS) Dr.J.Devishree Suggested to Include Introduction to transients</p>	<p>✓ Changed</p> <p>✓ Included</p> <p>✓ Changed</p> <p>✓ Included</p> <p>✓ Modified</p> <p>✓ Included</p> <p>✓ Included</p> <p>✓ Changed</p>
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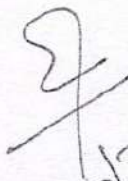
	<p>Dr.Sujatha Balaraman Suggested to modify the topic name AC Signals and Solution of RLC Circuits to AC Signals and RLC Circuit.</p> <p>SUBJECT:ENGINEERING PRACTICES LABORATORY</p> <p>Mr.D.Senthil kumar Suggested to include measuring instrument-Megger.</p>	<p>✓ Modified</p> <p>✓ Included</p>
Resolution	Resolved to approve the Syllabus under Regulation R-22 For 1 st & 2 nd semesters of Electrical and Electronics Engineering for the batch of students admitted during academic year 2022-2023	
Item 1.09	Review on analysis of CO- PO/PSO mapping and attainment of R17 Curriculum.	
Discussion	CO-PO/PSO Mapping of all first year subjects (I and II SEM) were discussed The target level of 70% is achieved for PO1,PO2,PO3,PO4,PO5,PO6,PO9,PO10,PO12 The target level of 70% is not achieved for the PO7, PO8, PO11 and PSO4 .The reason for the difference between target and achieved levels for all PO and PSO were analyzed and actions to be taken to improve the attainment level was discussed by BOS members.	
Resolution	Resolved and Solution is discussed to reduce the difference between target and achieved level of above mentioned POS and PSO in R22 Curriculum.	
Item 1.10	Review on Attainment target fixed for next batch.	
Discussion	Target attainment level(72%) is fixed for all the POS for EEE Students admitted during the academic year 2022-2023	
Resolution	Resolved and target attainment level(72%) is fixed for all the POS for EEE Students admitted during the academic year 2022-2023 is approved by all BOS members.	
Item 1.12	Review of R17 Ratification, if any.	
	NIL	
Item 1.13	Review of inclusion of PSE courses in R17	
Discussion	<p>In Professional Elective Course subjects were discussed by Expert members.</p> <p>Dr.J.Devishree suggested to Modify the Subject name Linear Signals and System as Signals and System.</p> <p>Mr.M.Jagathaguru Suggested to Modify the subject name Engineering automotive electronic system as Industrial Automotive Electronic System</p> <p>Dr.Sujatha Balaraman Suggested to remove thermodynamics subjects in Professional Elective Group.</p> <p>Mr.M.Jagathaguru Suggested to modify the subject name Utilization and conservation of Energy to Electric Energy Conservation and Auditing</p>	
Resolution	Resolved to approve the Programme Specific Electives(PSE) of R22 UG under Regulation R22 for the batch of students admitted in B.E Electrical and Electronics Engineering from	

	2022-2023 onwards
Item 1.14	Review of one credit courses
Discussion	Mr.M.Jagathaguru Suggested to Change the name of one credit course “PCB DESIGN” to Hardware Design
Resolution	Resolved to approve the Proposed Changes in above course for the academic year 2022-2023
Item 1.15	Review of Panel of Examiners
Resolution	Resolved to approve the Panel of Examiners
Item 1.16	Any other matter
	NIL

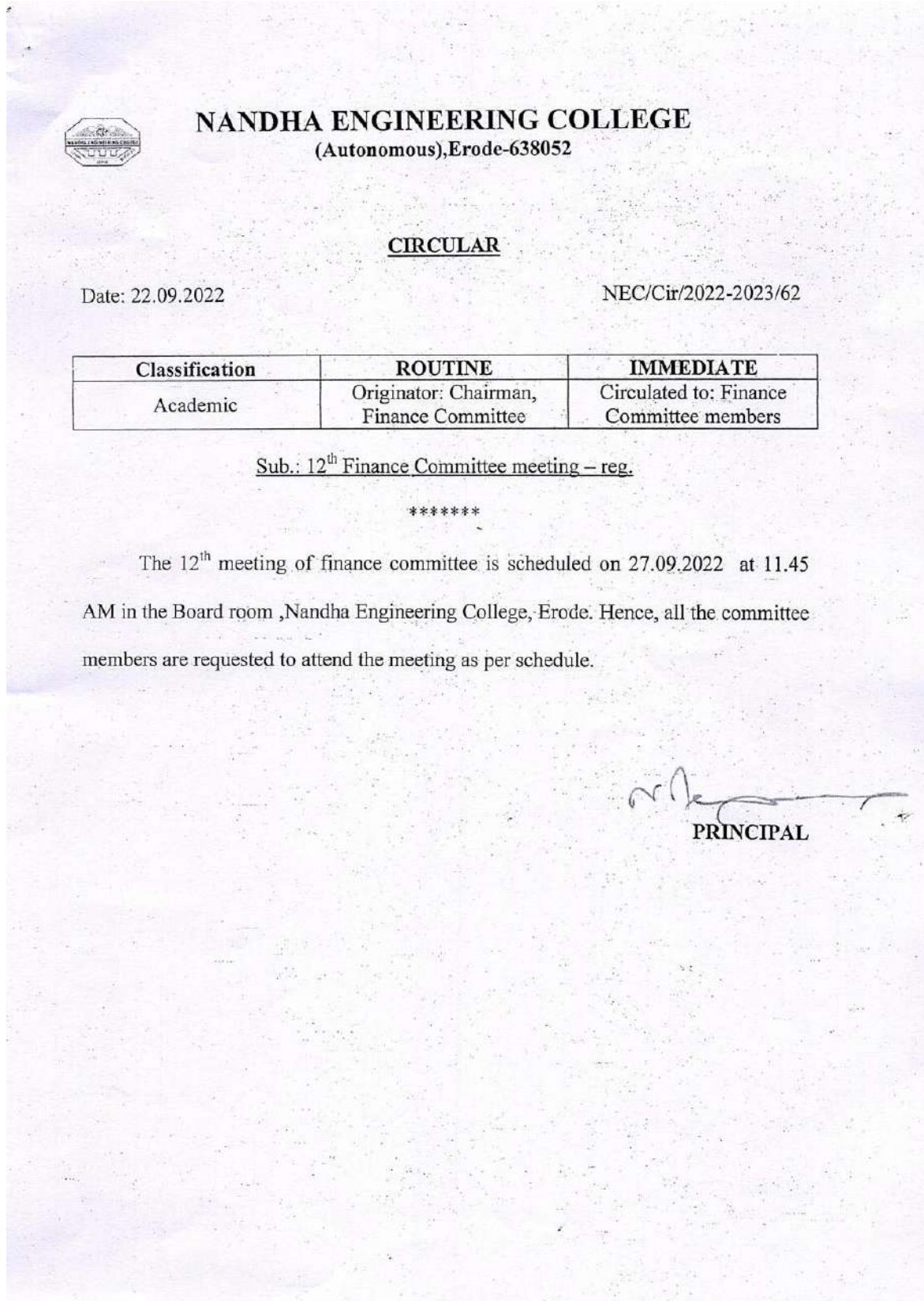
Date: 30.7.2022


30/7/22
Dr.G.Ramani

CHAIRMAN,BOS/EEE


30/7/22

Finance Committee:






NANDHA ENGINEERING COLLEGE
(Autonomous)
Erode – 638 052

FINANCE COMMITTEE MEETING

Academic Year	2022-2023	Meeting No.	12
Venue	Board room	Date and Time	27.09.2022 11.45AM


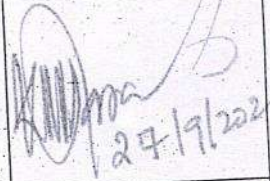
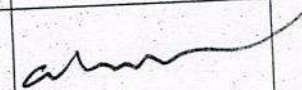
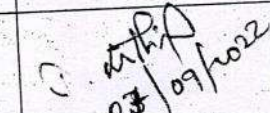


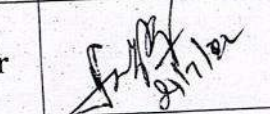
AGENDA

ITEM	DETAILS
12.1	Welcome by the Chairman of Finance Committee
12.2	Approval of the minutes of the 11 th finance committee meeting held on 29.9.2021.
12.3	Ratification of Budget utilization for COE section for the year 2021-22(Odd Semester).
12.4	Approval of Budget estimate for COE section for the year 2021-2022(Even semester)
12.5	Revision of remuneration in certain categories in COE.
12.6	Fixation of Condonation Fee (65% and above and below 75% attendance)
12.7	Approval of remuneration fixation of DAB meeting (Department Advisory Board) twice in a year .
12.8	Approval of Proposed Budget for Nandha Engineering College for the Year 2022-23
12.9	Any other item.


 FINANCE COMMITTEE CHARIMAN

Annexure – II

List of Members Attending Finance Committee Meeting.

Sl. No.	Name & Designation	Category	Signature
1.	Dr. N. Rengarajan, Principal, Nandha Engineering College.	Finance Committee – Chairman	 23/9/2022
2.	Dr.K.M.Parammasivam, Professor & Head Department of Aerospace Engineering, MIT Campus, Chennai.	University Nominee	 27/9/2022
3.	Thiru A. Sivaprakasam, Chief Financial Officer, Nandha Educational Institutions.	Nominee of the Governing Body	
4.	Dr.J.Senthil, Professor /CSE, Nandha Engineering College.	Senior-most Faculty nominated by Principal	 23/09/2022
5.	Mr. S. Nandhakumar Pradeep, Secretary, Sri Nandha Educational Institutions.	Co-opted Member	
6.	Mr. S. Thirumoorthi Secretary, Nandha Educational Institutions.	Co-opted Member	
7.	Mr. A.K. Velusamy, Administrative Officer , Nandha Engineering College.	Co-opted Member	
8.	Mr. P. Thirumoorthy DCOE, Nandha Engineering College.	Co-opted Member	 23/9/2022



NANDHA ENGINEERING COLLEGE (Autonomous)

MINUTES OF THE FINANCE COMMITTEE

The 12th meeting of the Finance Committee was held as given below:

Academic Year	2022-2023	Meeting No.	12
Venue	Offline Mode	Date and Time	27.09.22 11.45 AM
List of Members Attended	The list of members attended with signature is given in the Annexure – I & II		

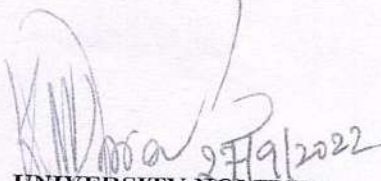
The Principal welcomed the members of Finance Committee Members.

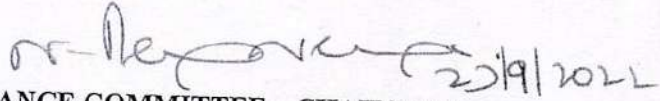
The Committee considered the items given in the agenda and deliberations are given below.

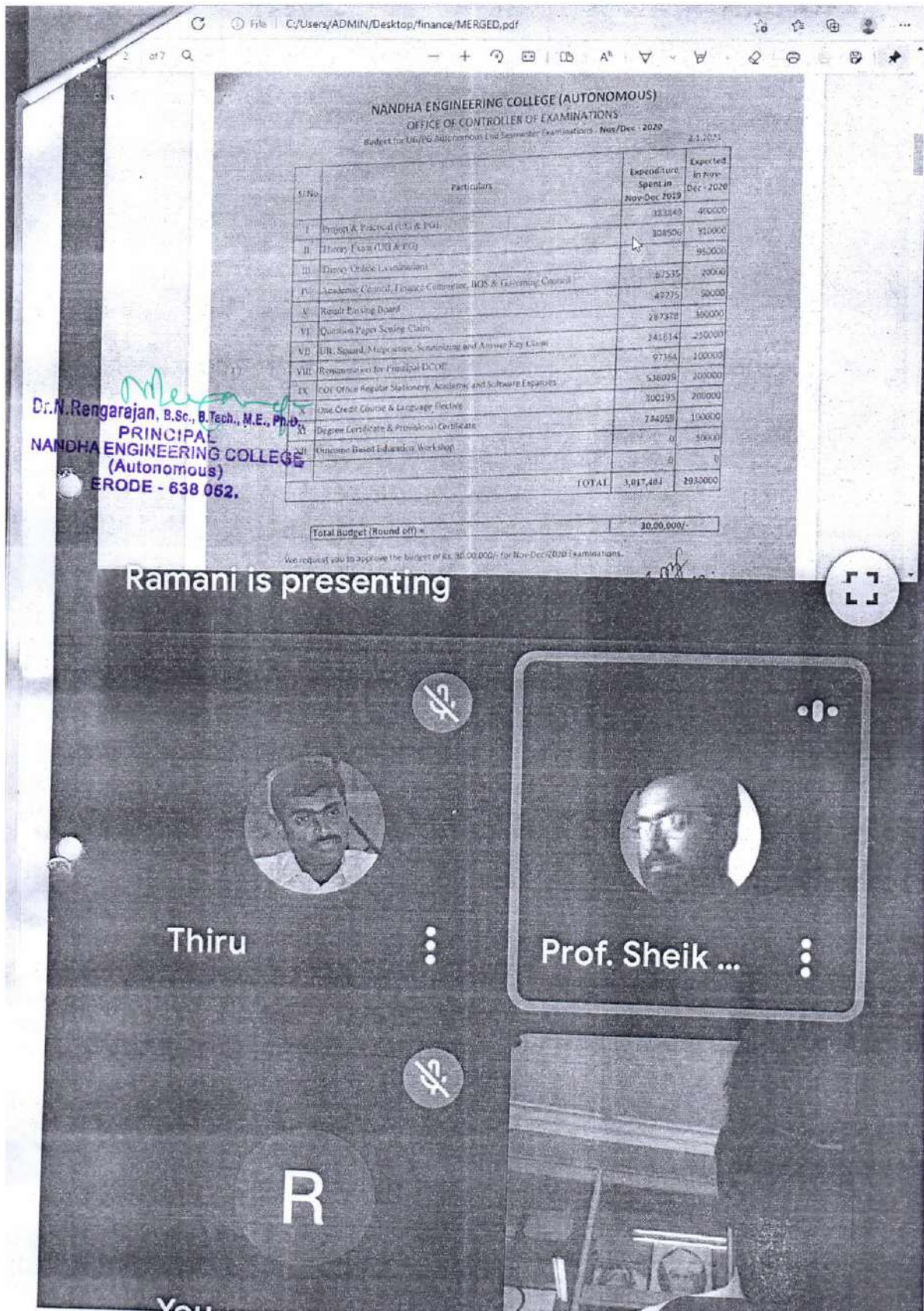
ITEM	DETAILS
12.1	Welcome by the Chairman of Finance Committee
12.2	Approval of the minutes of the 11th finance committee meeting held on 29.9.2021.
Details	The committee reviewed the minutes of the 11 th finance committee meeting and approved
12.3	Ratification of Budget utilization for COE section for the year 2021-22(Odd Semester).
Details	The committee reviewed the Budget utilization for COE section for the year 2021-2022(Odd semester)
12.4	Approval of Budget estimate for COE section for the year 2021-2022(Even semester)
Details	The committee reviewed the Budget and Expenditure for CoE for the Odd semester 2021-2022 and the Budget of CoE for Even Semester for 2021-22 approved. The details are given in Annexure – III

12.5	Revision of remuneration in certain categories in COE.
Details	<p>The committee reviewed the Revision of remuneration for the following items and approved.</p> <p>a) Conduct Of The Practical Examination.</p> <p>Revision of remuneration for examiners Practical Rs.20/ per UG candidate and Rs.25/ per PG Candidate.</p> <p>b) Conduct Of The Valuation</p> <p>(i). Revision of remuneration for examiners of the valuation Rs.30/ script UG and Rs. 35/ script PG</p> <p>(ii). Revision of remuneration for Chief Examiner of the Valuation Board - Rs. 4/- per script in total of all examiners evaluated under him. (for a maximum of 12 examiners or part thereof)</p> <p>(iii). Fixation of Data Entry (Central valuation) Non-Teaching Staff remuneration Rs.300/Day</p> <p>(c). Conduct Of Theory Examination</p> <p>(i). Revision of remuneration for Internal /External Hall Superintendent Rs.250/ per session and TA & DA (External) -Rs. 150/-</p> <p>(ii). Revision of remuneration for University Representative / Chief Superintendent Rs.300 per session</p> <p>(d). Fixation Of Examination Fee Details</p> <p>(i) Regulation 22 - Application fee Rs. 50/- per candidate, Grade sheet Rs. 125/- per candidate, Theory and practical exam fee – 275/- per course for UG , Project – 500/- candidate for UG and Theory and practical exam fee – 500/- per course for Project – 1000/- candidate for PG.</p> <p>(ii) Regulation 22 – Embedded course exam fee Rs. 325/- per course</p> <p>(iii) Regulation 22 – Scribe for examination Rs.300/- per course</p>
12.6	Fixation of Condonation Fee (65% and above and below 75% attendance)
	<p>The committee reviewed the Fixation of Condonation Fee and approved as follows</p> <p>(i) Regulation 22 - First Time Rs-2000/- per candidate and Second Time Rs-4000/- per Candidate</p>
12.7	Approval of remuneration fixation of DAB meeting (Department Advisory Board) twice in a year .

	The remuneration for the DAB meeting is fixed and approved as follows. 1.Academic Expert - Rs.2000 per meeting 2.Industry Expert - Rs.2000 per meeting 3.Alumni- Rs.1000 per meeting
12.8	Approval of Proposed Budget for Nandha Engineering College for the Year 2022-23
	The committee reviewed the proposed budget which includes CoE budget and approved for the year 2022-2023 and the details are given in Annexure -IV The audit statement for the year 2021-2022 was not available and will be presented during the next Finance committee meeting.
12.9	Any other item.
	Nil


UNIVERSITY NOMINEE
(Dr.K.M.PARAMMASIVAM)


FINANCE COMMITTEE - CHAIRMAN
(Dr.N.RENGARAJAN)



*** Functions and Responsibilities of the Administrative and Academic Bodies:**

The details of the various Administrative and Academic bodies are given in the Table B.10.1.3c.

Table B.10.1.3c Functions and Responsibilities of the Administrative and Academic Bodies

S. No	Name of the Body	Members	Frequency of Meeting	Functions
1	Governing Body	Management Representatives, Eminent Professionals from Engineering and Technology, Academicians of Excellence, University/ State / Central Government Nominees, Special Invitees, Member Secretary - Ex-Officio (Principal)	Twice in a year	<ul style="list-style-type: none"> • Long term Planning • Formulation of HR policy • Amend and Approve policies from time to time • Policy decision regarding quality maintenance in teaching-learning, research and development activities • Review of academic performance of the institution and suggest remedial measures • Fine tuning financial management systems • Identifying measures for taking care of academic, infrastructure, students' welfare and Rand D activities. • Review of Audit Reports, Financial accounts and budget • Framing administrative policies for the institution and delegating powers and responsibilities according to vision, mission and long-range policies for effective faculty, student and Management coordination • Approval of increase in intake and new Course • Approval of revised appointments for Academic Autonomy • Approval of resolution passed by Finance Committee • Approval of Resolution passed by Academic Council • Approval of semester results for UG/PG • To ensure the impact of the institution for the community through charitable activities during normal and times of distress
2	Academic Council	Principal, Deans, HODs, Faculty representatives, student representatives, experts from outside the college representing Industry, Commerce,	Twice in a year	<ul style="list-style-type: none"> • Approval of modification in the Regulation. • Scrutinize and approve the proposals with or without modification of the Boards of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant thereto etc., provided that where the Academic Council differs on

		Law, Education, Medicine, Engineering etc., nominated by Governing Body, three nominees of the University, Faculty member nominated by Principal		<p>any proposal, it shall have the right to return the matter for reconsideration to the Board of Studies concerned or reject it, after giving reasons to do so.</p> <ul style="list-style-type: none"> • Make regulations regarding the admission of students to different programs of study in the college keeping in view the policy of the Government. • Approval of curriculum and syllabi of UG/PG • Make guidelines for sports, extra-curricular activities, and proper maintenance and functioning of the playgrounds and hostels. • Amendment made in the Board of Studies • Recommend to the Governing Body institution of scholarships, studentships, fellowships, prizes and medals, and to frame regulations for the award of the same. • Approval of semester results for UG/PG • Approval of panel of examiners for odd/even semester • Recommend to the Governing Body proposals for institution of new programs of study. • Advise the Governing Body on suggestions(s) pertaining to academic affairs made by it.
3	Standing Committee for Academic Affairs SCAA	Principal, Deans and HODs	Twice in a year	<ul style="list-style-type: none"> • Scrutinize and recommend the proposals with or without modification of the Boards of Studies with regard to courses of study, academic regulations, curricula, syllabi and modifications thereof, instructional and evaluation arrangements, methods, procedures relevant thereto etc., to Academic council. Approval of modification in the Regulation.
4	Board of Studies	Head of the Department (Chairman), Entire	Twice in a year	<ul style="list-style-type: none"> • BoS receives the recommendations and inputs from syllabus sub-committee based on industry and academic experts' feedback related to the content of syllabi.



		<p>faculty of the program, student representatives, experts in subject from outside the college nominated by Academic Council, one expert nominated by University from panel recommended by college, representative from Industry relating to placement, postgraduate meritorious alumnus nominated by Principal</p>		<ul style="list-style-type: none"> • Discuss the syllabus content of courses and their alignment with current industry requirement • Prepare syllabi keeping in view the requirements and suggestions of stake holders, forwards same for approval to Academic Council • Suggest methods for innovative teaching and assessment tools • To discuss adequacy of infrastructure and its modernization • Facilitate industry collaboration • To approve panel of examiners
5	Finance Committee	<p>Principal (Chairman), One person nominated by the Governing Council of the college, one senior faculty nominated by Principal (in rotation)</p>	Once in a year	<ul style="list-style-type: none"> • To discuss and consider budget estimates of the institution • The Finance Committee shall act as an advisory body to the Governing Body, to consider: Budget estimates relating to the grant received/receivable from UGC, and income from fees, etc. collected for the activities to undertake the scheme of autonomy • To discuss and consider income from fees collected from students • Audit accounts for the above.



6	Disciplinary Committee	Deans, Head of Departments, Senior faculty from college, Student counselor	Twice in a year / Need based	<ul style="list-style-type: none"> • To inculcate the spirit of discipline among the student community and emphasize the importance of college character in life • Ensure a ragging free campus • Cater to the needs of both hostel and day scholar students by providing required infrastructure as per needs of the students. • Provide and monitor all facilities for students' welfare (facilities in classroom etc.,) • To identify the causes of violation of code of conduct /discipline and suggests measures for preventing it. • Take care of disciplinary activities in the campus • Arrange for counseling for needy people
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*** Policies and Procedures:**

Nandha Engineering College has defined policies which were developed with involvement of various stakeholders including HR team, Principal, members of Management and members of the Governing Council. The policy was developed in the year 2005 and based on the needs and it was revised and new policy amendments were brought in for the stakeholders.

The HR policies include

- Faculty recruitment
- Salary and Incentive
- Leave rules
- Promotion and Retirement policy
- Discipline and Grievance procedure
- Faculty Development – R&D and Consultancy
- Appraisal policy





NANDHA ENGINEERING COLLEGE
 (An Autonomous Institution, Affiliated to Anna University,
 Chennai and approved by AICTE New Delhi)
 Erode – 638 052, Tamilnadu, India.



Human Resource Policy Handbook

NANDHA ENGINEERING COLLEGE
 (AUTONOMOUS)
 (Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
 ERODE – 638 052 TAMILNADU

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PRINCIPAL
 Nandha Engineering College
 (Autonomous)
 Erode - 638 052.

NANDHA ENGINEERING COLLEGE
 (AUTONOMOUS)
 (Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai)
 ERODE – 638 052 TAMILNADU

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PRINCIPAL
 Nandha Engineering College
 (Autonomous)
 Erode - 638 052.

Figure B.10.1.3a HR Policy Handbook

Updated process flow chart for Registration fee and travelling allowance for FDP /workshop/conference is provided here. Updated FDP policy is provided here



NANDHA
ENGINEERING COLLEGE (Autonomous)

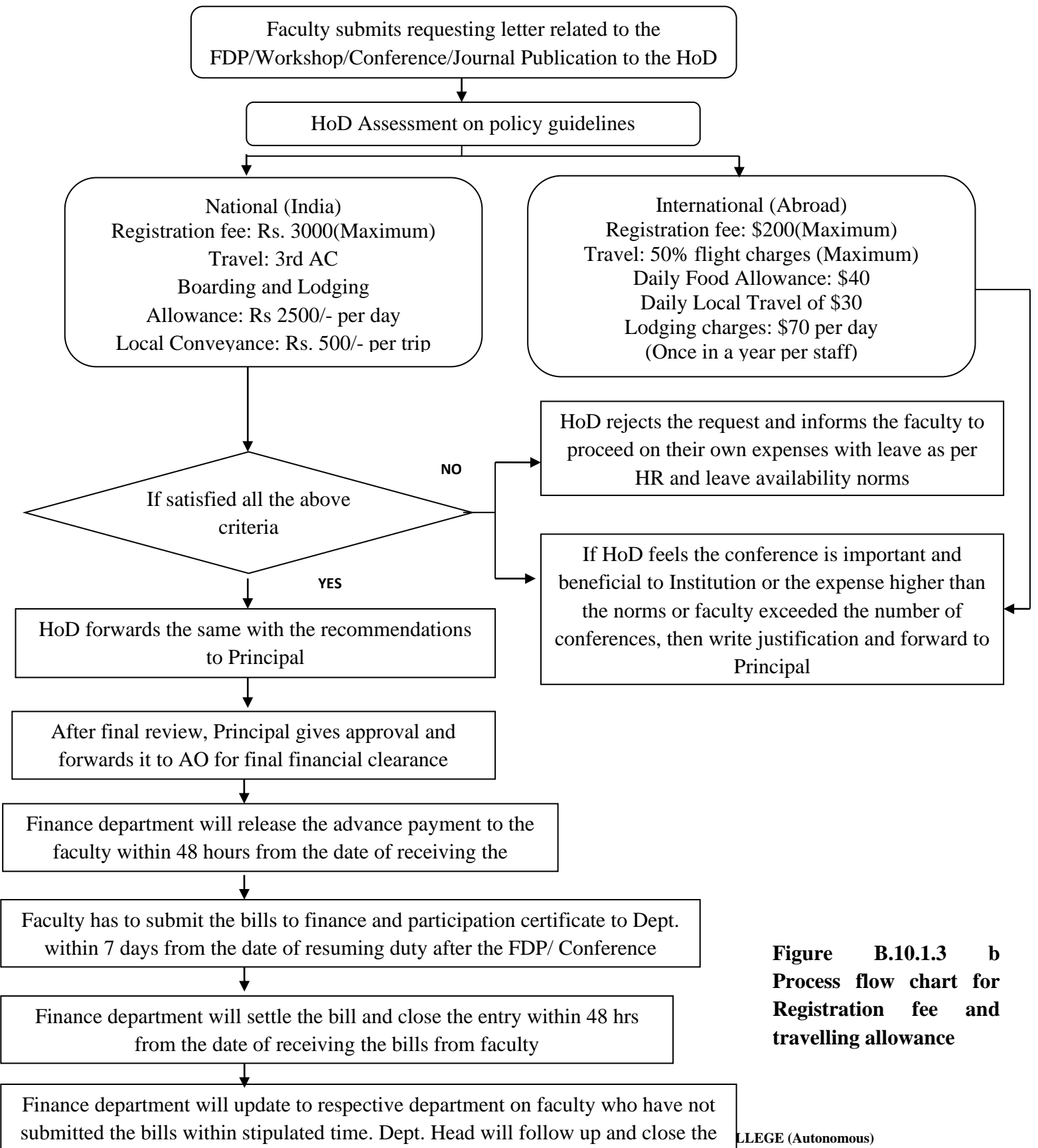


Figure B.10.1.3 b
Process flow chart for
Registration fee and
travelling allowance

10.1.4 Decentralization in working and grievance redressal mechanism

(5)

List the names of the faculty members who have been delegated powers for taking administrative decisions. Mention details in respect of decentralization in working. Specify the mechanism and composition of grievances redressal cell including Anti Ragging Committee and Sexual Harassment Committee.

Table B.10.1.4a Delegation of Institution level Responsibilities

NANDHA ENGINEERING COLLEGE (AUTONOMOUS) INTERNAL QUALITY ASSURANCE CELL			
ACADEMIC WORK RESPONSIBILITIES ACADEMIC YEAR : 2022 - 2023			
S.NO	ACTIVITIES	COORDINATOR	TIMELINE
1	Academic Schedule & Calendar	Dr.E.K.Mohanna	August 1st week
2	Dep. Event Calendar Co-Curricular/Extracurricular Activities	HoDS	August 2nd week
3	Time Table	Dr.E.K.Mohanna	August 3rd week
4	Department Meeting	HoDS	Weekly once
5	Program Assessment Committee (PAC)	HoDS	July 2nd week and Nov 2nd week
6	Department Advisory Board (DAB)	HoDS	4th week of July & 2nd week of December
7	Board of Studies	HoDS	July 3rd week , December 4th week
8	Regulations, Academic Council & Governing Council	IQAC & Dr.M.Eswaranmoorthi Mr.T.Venkateshan	August 2nd week , January 1st week
10	MSME, CIPD/TREX/ Innovation Industry Institute Interaction/III/Parents/Copyright/NIIP	Dr.M.Eswaranmoorthi- Mr.Vishnu, CIPD	Continuous
11	MoUs/Centre of Excellence	HoDS	1 per semester
12	Student Project (In-house and Industrial) /Field work / Internship / IPT	Dr.E.K.Mohanna	Mandatory for all
13	PWT projects	Ms.M.Parvathi	Continuous
14	Industrial Visits	Dr.P.Sakama & Dr.M.K.Murthi	1 per year
15	IIPC & Center of Excellence PAES Nanm Mathalvan(NMI) Nalaya Thirun (NT) Infocus Campus Connect (ICC) ICT Academy (ICT)	Dr.C.Siva - HoD/IT Dr.S.Prabhu (PAES) Mr.K.L.Ravikiran/Civil Mr.T.Jayashankar (NT) Ms.Sharmila/IT (ICC) Ms.Deeptika/CSE (ICT)	Min.1 Center of Excellence and 1 industry support laboratory
16	Learning Management System (LMS) & Campus	Mr.T.Jayashankar - ECE	5 per intake
17	Examination Calendar (CAT & End Sem), Examination Cell & Controller of Examinations	Dr.C.N.Munirathu Mr.Praveen Sathish Mr.S.Gunavarkatesh	As per Academic calendar
18		Dr.S.Aravugan Dr.P.Thirumorthy Mr.V.N.Lingamhoru Mr.S.Jagadeesan Mr.R.Navin Kumar	
19	Feedback From Student, Teacher/Employees, Alumni & in ATR	Dr.T.Jayashankar & Mr.V.Ravichandran	December 1st week & April 4th week
20	Student Exit Survey	HoDS	April 4th week



21	Class Committee Meeting	Dr.E.K.Vellingiri Raj	November 1 st week - April 2 nd week
22	Parents Meeting	Mr.G.Prabhakaran, ECE	November 2 nd week - April 2 nd week
23	Mentoring	Dr.M.Vijayalakshmi Dr.M.Dhapa	October 1 st week - November 4 th week
24	Research and Development Research Event Calendar and Activities, Research Promotion & Mobilization Policy.	Dr.C.N.Marinuthu Mr.G.Prabhakaran, ECE Ms.K.Shanmugasriya, CSE	Continuous
	Faculty Publications & Citations, Book & Book Chapter, Seed Money		Continuous
	R&D Grants - Project Grants FDP, STIP, Seminar Grants PMKVY & Student Project Grants		Continuous
	Abroad Research Internship & Institute Partnership (MoU with Academic institute).		Continuous
	Testing and Consultancy		Continuous
25	Referection	Dr.C.N.Marinuthu Mr.Prabhu, ECE	Continuous
26	NPTEL-SWAYAM Online Course	Dr.E.K.Mohanraj Mr.K.L.Ravishankar	January & July
27	Rejoin/Transfer - Course Equivalence, Add/Drop Course Registration, Course Exemption/OE, Summer Track		September & January
28	One Credit Course & Value Added Courses		September & January
29	Quarterly Presentation		Once in a 2 month
30	Department Placement Activities	HoDS	Continuous
31	Monthly Presentation	HoDS	Continuous
32	Membership in Professional Bodies - (college/individual) Professional Chapters and Its Activities	Dr.D.Vanathi Mr.Pradeepkumar	Once in a semester
33	Awards and Achievements Dep/Faculty & Student	HoDS	Continuous
34	Computing Facilities- Internet, firewall, Access Point & Maintenance	Dr.C.Siva Mr.T.Ganasekaran, System admin	Continuous
35	Student affairs - Health Care and Insurance, Scholarship	Dr.M.K.Murthi Dr.M.Mythili Ms.Panithasree, English Ms.P.S.Niji Ms.O.Abitha Anju	Continuous
	36	Student Skill Enhancement Activities Competitive Examination Bridge Course/ Career Counseling Higher Education	Dr.N.Subramanian Mr.B.Vinoth Kumar
37	Promotional Activities - Outreach Programs	Mr.R.Thirumelakandan	Continuous
38	Awards And Achievements - College	IQAC	Continuous
39	Best Practices Environment Consciousness And Sustainability	Mr.R.Thirumelakandan	Continuous
40	College News Letter	Ms.P.Kavitha, AP/English	January
41	Department News letter	HoDS	1 st week of September
42	Co-Curricular Activities	HoDS	Continuous

Extra - Curricular Activities (PCL)	Dr P Jeyaram,EEE Ms Brindha, AP/CE Ms P Devi/Maths	
Cultural Club	Ms. Abha Anja AP/CE	2nd week of every month
NSS	Mr.R.Manigandanthan Ms Loganayagi P, AP/Maths Mr Jayathar, Chemical Ms Manjula, EEE	2nd week of every month
YRC Club	Mr Anantha prabha Ms Sentharama M	2nd week of every month
Rocket Club	Dr M K Murthi	2nd week of every month
Fine Arts Club	Ms Sagarani Angarabala Ms Srividhya S R IT	2nd week of every month
Photography Club	Dr Sudagoban, K Ms Jhina J, AI&DS	2nd week of every month
Road Safety club	Ms A Maheswari, AP/CE Mr Kolthraganadi, EEE Mr Abdul Hameed A, Civil	2nd week of every month
Music Club	Ms Parithasari, English Ms Karthika, Chemical	2nd week of every month
Sports Club	Mr Prabha, ECE Mr Anandkumar, AP/CE Ms Sagarani, English Mr Chandrasekar, Agri Ms Seshanika, BME	2nd week of every month
Tree Plantation Club	Mr Prabha MEEE Ms Niveditha M/BAI Mr M Anandkumar, IT	2nd week of every month
Trekking Club	Mr B Vallabhan Mothy Mr G S Manigandan Matha Ms R Anitha Mr Mahan, Physics Mr Anandkumar, ECE Ms Geetha, Chemical	2nd week of every month
44. Budget & Finance Committee Internal / External Finance Audit	Dr U Ramani Mr R Ramraj	March 2nd week
45. Faculty And Department Appraisal	Dr Marimegalai	Once in a year
46. Financial Support to Faculty Member for Skill upgradation	IQAC	Continuous
47. Monitoring of Nandha Scholarship Beneficiaries	Mr.R.Thirumockakandan Dr.C. Siva	Continuous
48. Admission Committee Admission Meeting Minutes Admission Policy	Mr A K Velusamy Dr.C. Siva, HoD/IT	1 Week of May
49. Infrastructure Coordination	Mr.T.Brigadeeswaran Mr.U.Arjo Ind	May
50. Legal Issues & Right To Information	Dr K Parthiban	Continuous

51	Skill Development For Faculty Member - (LD (work shop, seminar FDP, STIP...) Development / Administrative Training Programs For Teaching & Non Teaching Members	Dr.V.Murugesan/MBA Mr.R.Thiruvethandam	May / June 1 per semester for all department
52	Website Updation	Ms.C.Narasimani	Continuous
	Department Visitors book	HoDS	Continuous
53	Visitors Book	Ms.K.Sathya-Principal Office	Continuous
54	Institutional Reports	IQAC	Continuous
55	EDP Cell	Ms.Aruni Mr.L.Jothibasu	2nd week of every month
56	Women Development Cell	Dr.M.Miyathi Ms.J.Aruna praba Ms.R.Aruna , Maths	2nd week of every month
	Grievance Redressal Committee(OMBUDSMAN)	Dr.S.Karuppanay Mr.C.Mani , CSE	2nd week of every month
57	Anti - Ragging Committee & Anti Ragging Squad	Dr.M.K.Merhi Dr.M.Vijayarajesh/Chem Ms.K.T.Eswari/MCA	2nd week of every month
58	Committee For Welfare of SC/ST	Mr.A.K.Velupany, AO Mr.C.Srinivasan, OS Mr.K.Rajasekaran	2nd week of every month
59	Minority Cell	Mr.A.K.Velupany, AO Ms.J.Aruna Praba Dr.Arunamban	2nd week of every month
60	Alumni Association & Chapters	Ms.C.Vasuki , IT Ms.V.Parasakthi , ECE	2nd week of every month
61	Sexual Harassment Committee	Dr.V.Murugesan/ MBA Ms.K.Selvi AP/Civil	2nd week of every month
62	College Cultural Committee	Mr.R.Thiruvethandam Ms.S.Priyanka	2nd week of every month
63	Library Committee	Dr.K.Sudhakar Dr.Thiyasathi	2nd week of every month
64	Safety Cell	Mr.S.Eswaran , Mechanical	2nd week of every month
65	Sports Development Cell	Mr.S.I.ashokan , PE Mr.V.Ravichandran	2nd week of every month
66	Board	Dr.C.N.Mahalingam Mr.A.K.Velupany , AO Dr.T.Jayarajini	2nd week of every month
67	Academic, Administrative and COE Audit	IQAC & Dr.J.K.Mohanan	Twice in a Semester
68	HoDs Meeting Agenda & Minutes	IQAC	Every Tuesday
69	Placement Meeting Minutes	Dr.Srinivasakrishnan	Every Monday
70	AQAR Preparation and Submission Student Satisfaction Survey(SSS)	IQAC	December 2nd week



71	UET, NRI & Other Rankings	IQAC	Continuous
72	Institute Vision And Mission Revision	IQAC	August 2nd week
73	Students Enrolment (MOE approval / Bihar Discontinues)	IQAC	Continuous
74	Consolidation of All BoE - SCAA (Standing Committee For Academic Affairs)	IQAC	August 2nd week
75	All Non Statutory Committee	Dr.V. Manonigala Mr.N. Senthil Kumar	2nd week of every month
	Actions / Reporting of Communication From UGC/AICTE/AI/ Local Authorities	Mr.A.S. Velusamy , AO	Continuous
76	AICTE Mandatory files	IQAC	Continuous
77	NBA & NAAC Accreditation	Dr.S.Kavitha Dr.J.K.Mohany	Continuous
78	E Waste Management	Mr.T.Jayachandran , ECE	Continuous
79	Waste Management	Mr.Ahmad Ahmed	Continuous
80	Water Facility conservation and Maintenance	Mr.P.Jayshankar, Maths	Continuous
81	Energy Audit	Mr.Prabha, EEE	Continuous
82	Student Profiling	IQAC	September 1st week
83	Library	Ms.S.Kavitha / CSE	Continuous
84	Strategic planning and development	Dr.M.Easwaramoorthi Mr.Rajkumar, Mech	Continuous


IQAC DIRECTOR


PRINCIPAL 11/11/2022



Majority of the decisions within the department are taken by the respective heads of the departments.

A core team comprising of senior faculty members lead the major process in the institute to realize that all the process is followed and are intact. Under the chairmanship of Principal various committees are formed to take care of different Decentralized activities in respect of academics, curricular and co-curricular activities. The following table provides the details of various committees and coordinators of the committees.

*** Statutory and Non-Statutory Committees**

S. No.	Name of the Committee	Responsibility
1.	Governing Body	Dr. Easwaramoorthi M
2.	Academic Council	Mr. Venkateshan T/ Mech
3.	Board of Studies	Respective Department HoDs
4.	Finance Committee	Dr. G. Ramani

Table: 10.1.4b Statutory and Non-Statutory Committees and Coordinators

S. No.	Name of the Committee	Responsibility
1	IQAC Cell NIRF and Other ranking	Dr.Kaviths.S/ECE Ms.Maheshwari.S/CSE Ms.Logeswari.V/ECE Dr.Muthu Kumar M/Mech
2	Planning and evaluation committee (5 years strategic plan)	Dr.Eswaramoorthi M/Mech Mr.Rajkumar/Mech
3	Admission committee	Dr.Siva.C/IT Mr. R. Thiruneelakandan, Physics
4	Controller of examinations	Dr.Thirumoorthy.P/CSE Mr.Loganathan. V N/Mech Mr. Jagaadesan S / MCA Mr. Navin Kumar R/MCA
	Examination cell	Dr.Marimuthu C N/ECE Mr. Gnana Venkatesh S/Civil Mr.Praveen Santhosh Kumar G/ ECE



5	Grievance Redressal Committee	Dr.Jamuna P /EEE Mr.Mani C/CSE
6	Women Development Cell	Dr.Mythili.M/Civil Ms.Amutha Prabha /Maths Ms.Amutha R / Maths
7	Anti-Ragging Committee and Anti-Ragging Squad	Dr.Murthi M K/Mech
8	Committee for welfare of SC/ST	Mr.Velusamy A K/AO Mr.Somasundaram.C/Office Mr.Rajasekaran.K/Chemical
9	Alumni cell	Ms.Vasuki.C/IT Ms.Pameswari.V /ECE
10	Student welfare committee	Dr.Murthi M K/Mech
11	Sexual Harassment committee	Dr.Manimegalai.V/MBA
12	Extra-curricular activities (PCD) and cultural committee	Ms.Eswari.K E /MCA/MCA Ms.Brindha.S/ECE Ms.Devi.P/Maths Ms.Suganti.S/English
13	Hostel	Dr.Marimuthu C N/ECE Muthupandi K /Warden
14	Research and Development cell	Dr.Marimuthu C N/ECE
15	Library Committee	Dr.K.Sadagopan
16	Academic Audit Committee.	Dr.Mohanraj.E K/Civil Zahira jahan N /MCA





NANDHA
ENGINEERING COLLEGE
(Autonomous)

INSTITUTION ORGANOGRAM

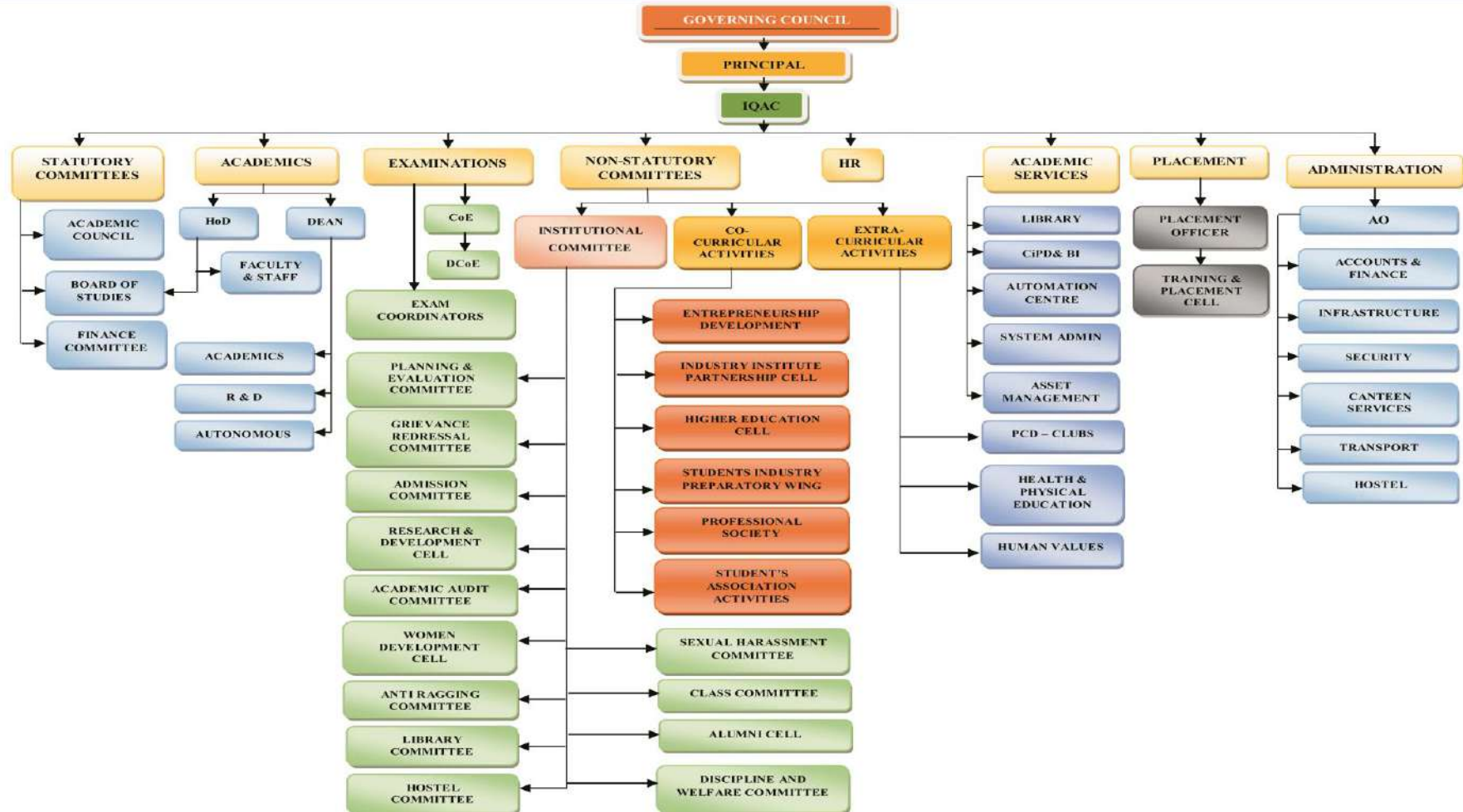


FIGURE B.10.1.4a NEC – Institutional Organogram



NANDHA
ENGINEERING COLLEGE (Autonomous)

*** Grievance Redressal Cell**

The College has a student grievance redressal cell headed by a coordinator supported by an assistant coordinator, staff member and one student representative from each department as members of this cell. The class committee constituted by HoDs also discusses/ solves issues related to student's grievances.

Members of Grievance Cell details are provided in Table B.10.1.4c

Table: B.10.1.4c Grievance Cell Members Details

Members Name	Profession	Associated with	e-mail Address
Dr. N. Rengarajan	Chairperson	Principal	principal@nandhaengg.org
Dr. P. Jamuna	Convener	EEE	jamuna.ponnusamy@nandhaengg.org
Mr. A.K.Velusamy	Member	AO	aotechcampus@nandhainstitutions.org
Dr. S. Karuppusamy	Member	CSE	karuppusamy.s@nandhaengg.org
Mr. C.Mani	Member	CSE	mani.chinasamy@nandhaengg.org
Ms. C.Navamani	Member	CSE	navamani.chinnasamy@nandhaengg.org
Mr. S.Muruganantham	Member	MECH	muruganantham.somasundaram@nandhaengg.org



Other cells

The institution is having following cells to provide redressal of issues.

* Women Development Cell (WDC)

To provide a Conducive environment for women staff, students to protect and safeguard their rights and to empower them. "Women Development Cell" has been constituted at Nandha Engineering College, Erode. This cell basically monitors all aspects pertaining to girl students and women staff members of the Institution. The following are the major activities of this committee:

- i) Redressal of issues of Sexual harassment for the Women Employee and girls Students in the College if any.
- ii) To conduct gender sensitization programme for the Prevention and Prohibition of gender-based violence.
- iii) Organizing programmes which bring about attitudinal and other changes for effective participation of women from all levels.
- iv) It undertakes, promotes and coordinates both fundamental and applied research on women and development.
- v) Develops and promotes (in collaboration with other agencies) educational training and action programmes for women, especially under privileged women.
- vi) Organizing various activities such as lectures, seminars, movies, panel discussions, elocution, role plays, games etc., promoting gender equality and gender amity and women empowerment.

* Anti-Ragging Committee

Nandha Engineering College has always taken adequate measures for prevention and control of ragging every year. And the ragging in the campus is strictly prohibited. The college would like to alleviate the fear and provide a conducive environment for learning during the initial period of the course. Following the Honorable Supreme Court's direction, we aim to make Nandha Engineering College a ragging free campus.

*Functions of Anti-Ragging committee

- Rules framed under TN. Prohibition of Ragging Act, 1977 under Section 8.



- Any complaint of ragging should be made to the college management / appropriate committees by a student within three days of its occurrence.
- The management should complete the enquiry within 72 hours and file a complaint with the police if it is found a student or any other person guilty of ragging. On receipt of the complaint, the police will register a case and proceed further in accordance with law.
- The management should also report the details to the university to which it is affiliated and to the head of the department concerned and also to the Government. Similarly, in case of conviction, the officer-in charge of the police station would send a report to the college management, university, department concerned and the Government.
- A student, who was placed under suspension based on the complaint of ragging, is ultimately not convicted, the management shall revoke the suspension and the period of suspension of such student shall be treated as if the student had attended the classes.
- A student who desires to discontinue the course in the middle of the curriculum will be bound by the decision of the University Authorities.
- Smoking is strictly prohibited in the institute premises. Students found smoking in the premises will face disciplinary action.
- Students should avoid bringing mobile phones to their classes. The institute seeks the co-operation of parents/guardians to discourage their wards in carrying cell phones to the institute.
- Those found violating this are liable to be debarred from taking the University Examination and their phones will be confiscated.

*** Important Instructions about Ragging**

- The Hon'ble Supreme Court of India, New Delhi by its order dated 16.05.07 in SLP (C) No.24295/2004 stated the following in order to curb the menace of RAGGING in Educational Institutions.
- "If any incidents of Ragging comes to the notice of the authority, the concerned students shall be given liberty to explain and if his explanation is not found satisfactory, the authority would expel him from the institutions"



- The above directions of the Hon'ble Supreme Court of India will be strictly implemented.

*** Rules and Regulation**

- Ragging is strictly prohibited.
- All information in connection with college activities / examinations, scholarship, enrollment, sports etc., shall be displayed in college / department notice boards.
- Provoking other students by means of abusive language, harsh behavior or indulging in violent activities is punishable.
- Dress code is compulsory.
- Usage of mobile phones, tabaco products, alcohol, banned drugs and narcotic substances are strictly prohibited.
- Students need to be punctual to the classes.
- Crowding and grouping inside and outside the college premises should be avoided.
- Utmost care should be taken in maintaining college properties.
- Students are expected to maintain cleanliness inside the campus premises.
- Sticking bills and writing on the walls / roads are to be avoided.
- Wearing identity cards within the college premises is a must.
- Road safety rules should be strictly followed while driving vehicles.
- Use stipulated parking areas for vehicles.
- Wearing lab coats during the lab hours is essential.
- Students shall not be allowed to go outside the campus without the permission from the department.

*** Sexual Harassment Committee**

The College has a cell and mechanism to resolve issues of sexual harassment. The strong values and sense of morality are instilled to the students in order to promote cordial relation between girls and boys. There has been no sexual harassment reported. The behaviours of the students are regularly monitored by class coordinators to establish a strong feel of social responsibility and mutual respect among them.

Members of Anti-Ragging committee, Anti-Ragging squad and Sexual Harassment Committee details are provided in Table B.10.1.4d and Table B.10.1.4e



Table B.10.1.4d List of Anti-Ragging Committee Members and Anti-Ragging Squad Members



NANDHA ENGINEERING COLLEGE
(Autonomous)

Affiliated to Anna University Chennai * Approved by AICTE * Accredited by NBA-NewDelhi
Pitchandampalayam, (P.O), Valkkalmedu, Erode - Perundurai Road, Erode - 638 052
Phone : 04294-225585, 223711, 223722, 226393 Fax : 04294 - 224787

Website : www.nandhaengg.org

E.mail : info@nandhaengg.org

Dr. N. Rengarajan B.Sc.,B.Tech.,M.E.,Ph.D.
PRINCIPAL

ANTI-RAGGING COMMITTEE (2022-2023)

Name of the Member	Position	Designation	Mobile Number
Dr. M. K. Murthi	Chief Coordinator	Prof/Mech	73737 37471
Mr. K. S. Mohan	Coordinator	AP/Physics	97897 50511
Dr. E. K. Mohanraj	Member	HoD/Civil	73737 14706
Dr. G. Ramani		HoD/EEE	99407 78576
Dr. N. Subramanian		HoD/Chemical	97897 80967
Ms. M. Parvathi		HoD/AI&DS	73737 50507
Mr. Thangadurai		Sub Inspector of Police	9698141118
Mr. Selvin		Reporter- Dinathanthi News	9842408012
Mrs. T. Mohanapriya		Student Member	Final Year EEE
Mr. K. William Richard	Final Year Mech		9629908113
Mr. S. Rajeshkumar	Final Year Chemical		7603993792

ANTI-RAGGING SQUAD MEMBERS (2022-2023)

Name of the Member	Position	Designation	Mobile Number
Dr. M. Vijayalakshmi	Committee Squad	Prof/Chemistry	94437 57680
Dr. C. Siva		HoD/IT	97506 80111
Dr. D. Vanathi		HoD/CSE	73737 40011
Mr. K. Pradeep Kumar		HoD/Agri	99656 15038



2

N. Rengarajan
PRINCIPAL
PRINCIPAL
Nandha Engineering College
(Autonomous)
Erode - 638 052.



NANDHA
ENGINEERING COLLEGE (Autonomous)

Table B.10.1.4e List of Committee against Sexual Harassment

S.No.	Name	Designation	Email ID
1.	Dr. V. Manimegalai	Prof. /MBA	Manimegalai.v@nandhaengg.org
2.	Ms. R. Kavitha	Panel Lawyer, District Legal Service Authority, Erode	Kavithasujeeth4@gmail.com
3.	Parvathi M	Prof./ CSE	Parvathi.m@nandhaengg.org
4.	Parameswari. J	AP/ ECE	erparam@gmail.com
5.	Selvi K	AP/ Civil	Selvi.kaliappan@nandhaengg.org
6.	Nandhini K	AP/ MBA	Nandhini.k@nandhaengg.org
7.	Amutha K	Lab Assist/ IT	amuthakanna@nandhaengg.org
8.	Sathya R	Lab Assist/ MBA Supporting Staff	Sathya1562001@gmail.com

10.1.5 Delegation of Financial Powers**(5)**

Institution should explicitly mention financial powers delegated to the Principal, heads of Departments and relevant in-charges. Demonstrate the utilization of financial powers for each of the assessment years.

Principal is authorized to sanction up to Rs. 1 Lakh for institutional expenses like organizing events, sponsoring faculty members for attending programs, purchase of items for laboratory, maintenance, etc. The Heads of the department are authorized to sanction up to Rs. 25,000/- for departmental expenses.

Department heads will prepare and submit the budget proposals for purchase of capital equipment/consumables, service of equipment/machinery every year. Upon approval of the same by the management, purchases of consumables and capital equipment are made through the purchase/Finance department of the college.





SRI NANDHA EDUCATIONAL TRUST

291, Chinnamuthu Street, E.K. Valasu, Erode - 638 011, Tamil Nadu.

STD : 0424
 ☎ OFF : 2264655
 Fax : 2260058

EXTRACT OF THE MINUTES OF GOVERNING BODY MEETING OF

SRI NANDHA EDUCATIONAL TRUST,

ERODE-638011.

HELD ON 25.03.2015

Present:

1. Thiru.V.Shanmugan
2. Thiru S.Nandhakumar Pradeep
3. Thiru S.Thirumocathi
4. Tmt.S.Baanumathi

Sub: Revision of Financial Powers- Nandha Engineering College- Reg.

Proposal:

It is proposed to give financial powers to The Principal and HoDs of Nandha Engineering College as below:

S.No	Designation	Total Expenditure (Capital & Revenue) Per Annum	Maximum permissible expenses per occasion
1.	Principal	100000	5000
2.	HoD	25000	3000

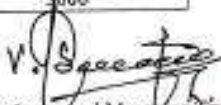
The proposal is place before the Governing body for approval.

Resolution:

Resolved to approve the Financial powers of The Principal and HoDs of Nandha Engineering College as below

S.No	Designation	Total Expenditure (Capital & Revenue) Per Annum	Maximum permissible expenses per occasion
1.	Principal	100000	5000
2.	HoD	25000	3000

The powers approved as above shall be in force till further revision.


 Chairman and Managing Trustee
 Sri Nandha Educational Trust,
 Erode

10.1.6 Transparency and availability of correct/unambiguous information in public domain. (5)

(Information on policies, rules, processes and dissemination of this information to stakeholders is to be made available on the web site)

The NEC website provides details about the faculty and staff, mandatory disclosure, audited statements, institutions policies, rules and processes. The details various activities in the college and achievements of faculty and students in various inter-college, national and international level events are posted in the college website and available in the following link.

College website: <https://www.nandhaengg.org>



Figure B.10.1.6 College website page

Transparency is also maintained and all information about the college, decisions taken, rules implemented, events organized etc. are disseminated through the college mail to all faculty members and students. Each faculty and student members are provided with an e-mail account, which they may log in at any time of the day and use it for exchanging information and important documents. The information is also disseminated to the entire newly recruited faculty members during the faculty orientation conducted for the newly recruited faculty members.

Transparency in other curricular matters:

- Policy decisions taken in the Governing Body meeting is conveyed to HoDs time to time by the Principal
- Decisions of HoDs meeting with Principal are also conveyed to all faculty members and students.
- Details related to examinations and assessments are duly conveyed to faculty and student members well in advance as per the schedule given in the academic calendar.



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- Attendance, Continuous Assessment marks of both theory and laboratory courses are conveyed to the students and parents.
- Annual budget prepared by the department coordinators is reviewed by the HoDs and then submitted to Principal for approval. After approval of budget, quotations are called; compared and final orders are placed for purchase of items/equipment.
- High valued items/equipment (more than one lakh) quotations will be scrutinized by a committee.



Table B.10.2a(i) Budget Allocation and Utilization of CAYm1 2020-2021

CAYm1 : 2020-2021							
Total Income in CFY : 118246298.00				Actual Expenditure in CFY : 72715136.00			Total No. of students in CFY: 2770
Fee INR (Lakhs)	Govt. INR (Lakhs)	Grant(s) INR (Lakhs)	Other sources (Specify) INR (Lakhs)	Recurring including salary INR (Lakhs)	Non-recurring INR (Lakhs)	Special Projects/Any other, Specify INR (Lakhs)	Expenditure per student INR (Lakhs)
114995835.00	0	1674500.00	1574963.00	69297728.00	3417408.00	0	26251.00

Table B.10.2a(ii) Budget Allocation and Utilization of CAYm2 2019-2020

CAYm2 : 2019-2020							
Total Income in CFY : 154460318.61				Actual Expenditure in CFY : 139522490.6			Total No. of students in CFY: 2713
Fee INR (Lakhs)	Govt. INR (Lakhs)	Grant(s) INR (Lakhs)	Other sources (Specify) INR (Lakhs)	Recurring including salary INR (Lakhs)	Non-recurring INR (Lakhs)	Special Projects/Any other, Specify INR (Lakhs)	Expenditure per student INR (Lakhs)
129166000.00	0	0	25294319.00	132063205.00	7459286.00	0	51428.00



Table B.10.2b(iii) Budget Allocation and Utilization of CAYm3 2018-2019

CAYm3 : 2018-2019							
Total Income in CFYm1 : 148654364.00				Actual Expenditure in CFYm1 : 148654364.00			Total No. of students in CFYm1: 2727
Fee INR	Govt. INR	Grant(s) INR	Other sources (Specify) INR	Recurring including salary INR	Non-recurring INR	Special Projects/Any other, Specify INR	Expenditure per student INR
127240000.00	0	0	21414364.00	135105018.00	13549346.00	0	54512.00



Table B.10.2b Budget Allocation and Utilization under different categories

S. No.	Items	Budgeted in Rs.	Actual Expenses in Rs.	Budgeted in Rs.	Actual Expenses in Rs.	Budgeted in Rs.	Actual Expenses in Rs.
		2020-2021	2020-2021	2019-20	2019-20	2018-19	2018-19
1	Infrastructure Built-Up	4000000.00	1918599.00	22100000.00	1188461.00	10800000.00	1374111.00
2	Library	1800000.00	1498809.00	1200000.00	2863437.00	2500000.00	1217438.00
3	Laboratory equipment	6000000.00	0	4000000.00	2360000.00	13639000.00	2757149.00
4	Laboratory consumables	800000.00	95510.00	545000.00	381357.00	717000.00	306283.00
5	Teaching and Non-teaching staff Salary	95000000.00	53875980.00	90500000.00	96570428.00	116800000.00	99315131.00
6	Maintenance and spares	8000000.00	2212526.00	20700000.00	1494628.00	23750000.00	1152999.00
7	R & D	1000000.00	4316470.00	800000.00	807388.00	1000000.00	1545530.00
8	Training and Travel	3000000.00	2244662.00	2350000.00	730645.00	2700000.00	1396372.00
9	Miscellaneous allowances (Sports, Department and college functions)	2000000.00	1852761.00	9600000.00	3908489.00	9500000.00	5225134.00
10	Others (University, Functions, Extracurricular activities)	7530000.00	4699819.00	12000000.00	28977657.59	9400000.00	37121366.00
Total		129130000.00	72715136.00	163795000.00	139282490.6	190806000.00	151411513.00



10.2.1 Adequacy of budget allocation**(5)****Self Assessment (5)**

(The institution needs to justify that the budget allocated during assessment years was adequate)

Nandha Engineering College is a self-financing Institution run by the Sri Nandha Educational Trust. The trust manages all the financial resources of the institution. Budget requirements are prepared by the Principal. Budget requirements under ‘recurring’ and ‘non-recurring’ heads are collected from every department before the commencement of the financial year. Principal consolidates the budget requirement and it is placed before the finance committee. The budget approved by the committee is forwarded to the Secretary and Chairman. The Chairman places the budget to the Trust. The trust approves the budget. The approved budget is forwarded to the Principal, HoDs and faculty for utilization. The institution never had any serious budget crunch that affected the functioning of the college. Budget allocation under various heads was adequate for meeting the demands of the institute.



	Items	Budgeted in Rs. (2020-21)	% of budget allocation (2020-21)	Budgeted in Rs. (2019-20)	% of budget allocation (2019-20)	Budgeted in Rs. (2018-19)	% of budget allocation (2018-19)
1	Infrastructure Built-Up	4000000.00	3.10	22100000.00	13.49	10800000.00	5.66
2	Library	1800000.00	1.39	1200000.00	0.73	2500000.00	1.31
3	Laboratory equipment	6000000.00	4.65	4000000.00	2.44	13639000.00	7.15
4	Laboratory consumables	800000.00	0.62	545000.00	0.33	717000.00	0.38
5	Teaching and Non-teaching staff Salary	95000000.00	73.57	90500000.00	55.25	116800000.00	61.21
6	Maintenance and spares	8000000.00	6.20	20700000.00	12.64	23750000.00	12.45
7	R & D	1000000.00	0.77	800000.00	0.49	1000000.00	0.52
8	Training and Travel	3000000.00	2.32	2350000.00	1.43	2700000.00	1.42
9	Miscellaneous allowances (Sports, Department and college functions)	2000000.00	1.55	9600000.00	5.86	9500000.00	4.98
10	Others (University, Functions, Extracurricular activities)	7530000.00	5.83	12000000.00	7.33	9400000.00	9150000
Total		129130000.00	100	163795000.00	100	190806000.00	100

Table B.10.2.1 Budget Allocation and Utilization under different categories



10.2.2 Utilization of allocated funds**(5)****Self Assessment (5)**

(The institution needs to state how the budget was utilized during assessment years)

Every year almost 47% of the budget is spent on teaching and non-teaching staff salary, 10% of the budget is spent on Infrastructure Built-Up and the remaining on other expenses. On an average more than 85% of the allotted fund was utilized.

Table B.10.2.2 Utilization of allocated funds

Utilization of allocated funds	Financial Year	Budgeted	Spent	% Utilization of funds
	2020-2021	129130000.00	7,27,14,136.00	92%
	2019-2020	163795000.00	13,95,22,490.60	85%
	2018-2019	190806000.00	15,14,11,513.54	79%

10.2.3 Availability of the audited statements on the institute's website**(5)****Self Assessment (5)**

(The institution needs to make audited statements available on its website)

The audited statements are available on our college website.

FINANCE COMMITTEE

FINANCE COMMITTEE COMPOSITION OF MEMBERS	
Chairman	Dr. N Rengarajan, Principal
Nominee of the Governing Body	A.Siva Prakashan, Chief Finance Officer, Nandha Educational Institutions
Senior-most Faculty Nominated by The Principal	Dr. K. Sadagopan, Chief Librarian
Co-opted Members	S.Nandhakumar Pradeep, Secretary, Sri Nandha Educational Trust
	S.Thirumoorthi, Secretary, Nandha Educational Institutions
	A.K.Velusamy, Administrative Officer, Nandha Engineering College

Audited Statements



10.3 Program specific Budget Allocation, Utilization**(30)****Self Assessment (30)**

The program specific budget allocation and its utilization is given below

Table B.10.3a (i) Total Budget and Expenditure for CFY : 2021-2022**CFY (2021-2022)**

Total Budget in CFY (INR) : 400000		Actual expenditure in CFY (INR) : 3,83,593		Total No. of students in CFY : 629
Non recurring	Recurring	Non Recurring	Recurring	Expenditure per student
85000	315000	85000	298593	610

Table B.10.3b (i) Total Budget and Expenditure for CFY : 2020-2021**CFY (2020-2021)**

Total Budget in CFY (INR) : 1266000		Actual expenditure in CFY (INR) : 1137362		Total No. of students in CFY : 473
Non recurring	Recurring	Non Recurring	Recurring	Expenditure per student
221000	1045000	187616	949746	2404.57

Table B.10.3c (ii) Total Budget and Expenditure for CFYm1 : 2019-2020**CFYm1 (2019-2020)**

Total Budget in CFYm1 (INR) : 3861000		Actual expenditure in CFYm1 (INR) : 3594794		Total No. of students in CFYm1 : 566
Non recurring	Recurring	Non Recurring	Recurring	Expenditure per student
251000	3610000	211568	3383226	6351.23



Table B.10.3d (iii) Total Budget and Expenditure for CFYm2 : 2018-2019

CFYm2 (2018-2019)

Total Budget in CFYm2 (INR): 4336000		Actual expenditure in CFYm2 (INR): 4030745		Total No. of students in CFYm2 : 636
Non Recurring	Recurring	Non Recurring	Recurring	Expenditure per student
476000	3860000	433816	3596929	6337.65

Table B.10.3e (iii) Total Budget and Expenditure for CFYm3 : 2017-2018

CFYm3 (2017-2018)

Total Budget in CFYm3 (INR): 4001000		Actual expenditure in CFYm3 (INR): 3709059		Total No. of students in CFYm3: 737
Non recurring	Recurring	Non Recurring	Recurring	Expenditure per student
401000	3600000	324696	3384363	5032.60



Table B.10.3b Budgeted and Actual Expenses incurred

Items	Budgeted in CFY (2020-2021)	Actual Expenses in CFY (2020-2021)	Budgeted in CFYm1 (2019-2020)	Actual Expenses in CFYm1 (2019-2020)	Budgeted in CFYm2 (2018-2019)	Actual Expenses in CFYm2 (2018-2019)	Budgeted in CFYm3 (2017-2018)	Actual Expenses in CFYm3 (2017-2018)
Laboratory equipment	20000	1200	50000	41900	75000	72840	100000	92278
Software	1000	1000	1000	1000	1000	1000	1000	1000
Laboratory consumable	20000	967	150000	161617	30000	29437	50000	32963
Maintenance and spares	25000	21699	60000	39557	30000	28788	50000	37137
R & D	200000	185416	200000	168668	400000	359976	300000	231418
Training and Travel	600000	556248	200000	152820	400000	325632	300000	242473
Miscellaneous expenses *	400000	370832	3200000	302922	3400000	3213072	3200000	3071790
Total	1266000	1137362	1030000	3594794	4336000	4030745	4001000	3709059



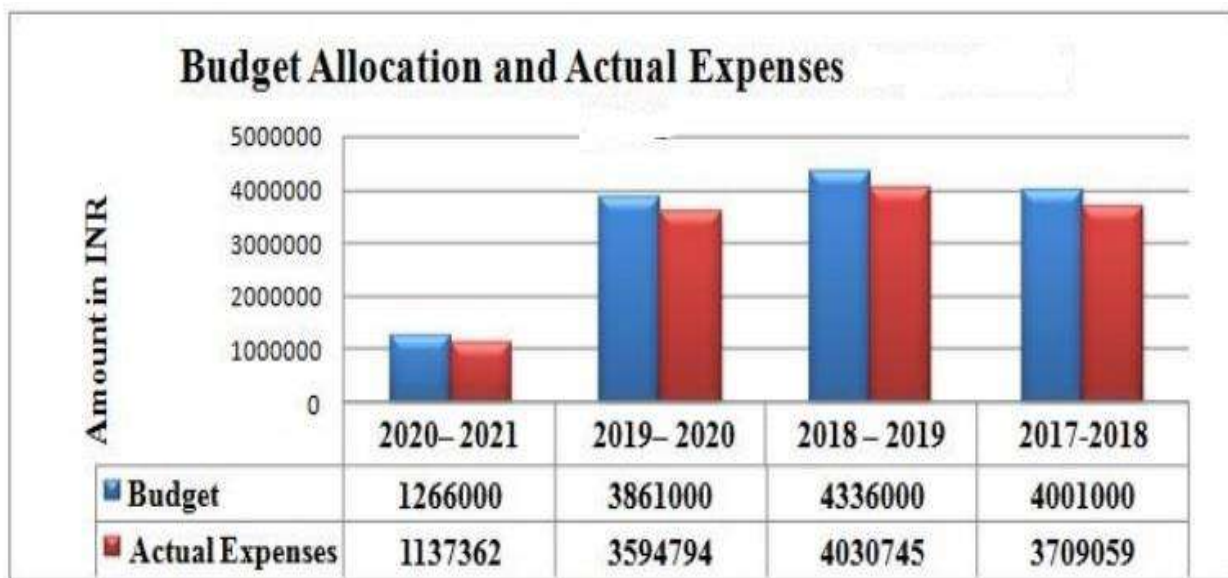


Figure B.10.3b Budgeted and Actual Expenses incurred during past four years

10.3.1. Adequacy of budget allocation

(10)

Self Assessment (10)

Table B.10.3.1a Adequacy of budget allocation incurred

Items	CFY (2020-2021)		CFY m1 (2019-2020)		CFYm2 (2018-2019)		CFYm3 (2017-2018)	
	Budgeted	% of Budget Allocation	Budgeted	Budgeted	% of Budget Allocation	% of Budget Allocation	% of Budget Allocation	% of Budget Allocation
Laboratory equipment	20000	1.60	50000	1.30	75000	1.73	100000	2.50
Software	1000	0.1	1000	0.03	1000	0.02	1000	0.02
Laboratory consumable	20000	1.60	150000	3.89	30000	0.69	50000	1.25



Maintenance and spares	25000	2.0	60000	1.55	30000	0.69	50000	1.25
R & D	200000	15.8	200000	5.18	400000	9.23	300000	7.50
Training and Travel	600000	47.4	200000	5.18	400000	9.23	300000	750
Miscellaneous expenses *	400000	316	3200000	82.88	3400000	78.41	3200000	79.98
Total	1266000	100	3861000	100	4336000	100	4001000	100

Budget is prepared based on the needs and requirements of the department laboratories, R&D, Miscellaneous expenses, Training and Travel. Budget is prepared at the department level and submitted to the Principal. After the deliberations in HoDs meeting it is submitted to the management for approval. The management in consultation with HoDs, Deans and Principal approves the budget to the departments. The budget allocated to the departments is adequate to meet the requirements of each department.

10.3.2. Utilization of allocated funds

(20)

Self Assessment (20)

The percentage of Budget Utilization is given below.

Table B.10.3.2a Utilization of allocated funds for three years

Financial Year	Budget Allotted in INR	Budget Utilized in INR	Budget Utilization (%)
CAY (2020 – 2021)	1266000	1137362	90
CAY m1 (2019 – 2020)	3861000	3594794	93
CAYm2 (2018 – 2019)	4336000	4030745	93
CAYm3 (2017 – 2018)	4001000	3709059	93



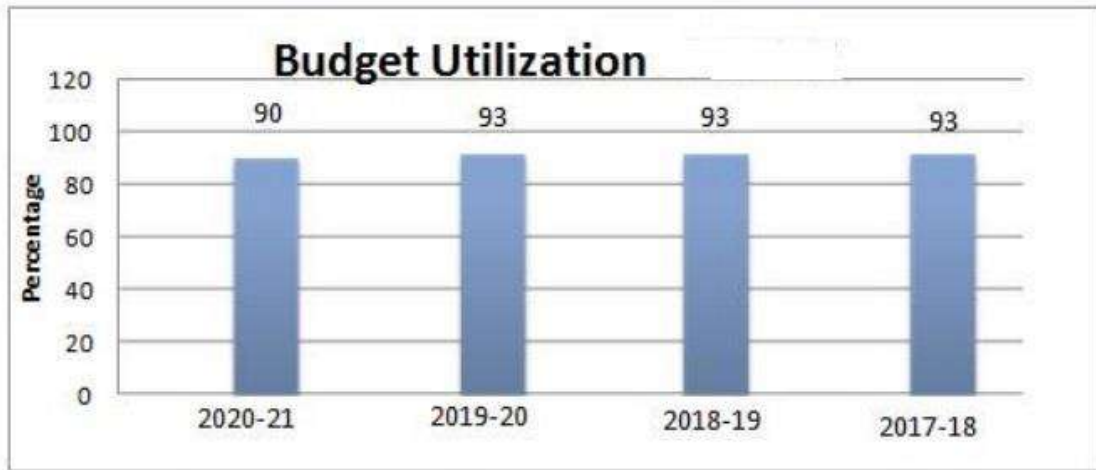


Figure B.10.3.2a Utilization of allocated funds

10.4 Library and Internet

(20)

10.4.1 Quality of Learning Recourses (Hard/Soft)

- Library Services : Yes
- Carpet area of library (in m²) : 1080
- Reading space (in m²) : 580
- Number of seats in Reading space : 220
- Number of users (issue book) per day : 159
- Number of users (reading space) per day : 241

* Timing and Usage:

During Working Days : 9.00 A.M – 7.00 P.M

Weekend : 9.00 A.M – 1.00 P.M

Number of Library staff : 5

Number of Library staff with degree in library : 4

- Managements Computerization for search, indexing, issue/returns Bar coding used
- Commercial Campus i-lib Software (Version : 5.7.0) used for search and indexing of books
- Library services on internet / intranet INDEST or other similar membership.



*** Eligibility for Borrower**

UG Students	: 5 Books
PG Students	: 6 Books
Research Scholars	: 8 Books
Faculty members	
Teaching	: 10 Books
Non-Teaching	: 3 Books

*** Online Packages**

- Online journals and E-Books (IEEE and J-Gate)
- Online Proceedings, Thesis, Audio and Video (J-Gate)
- Library Website – www.necl.webnode.com
- Library Whatsapp – NEC Central library (Faculty members alone)

*** Institutional Member**

- DELNET

*** Archival**

- Back volumes : 4405
- Project report : 1157
- Question Bank (Digitalized) : 262

*** Titles and volume per title**

Number of titles / Volumes : 19524/162108

Table B.10.4.1a Scholarly Journal Subscription

Year	Number of New Titles added	Number of New editions added	Number of New Volumes added
2021-22	261	27	553
2020-21	223	12	411
2019-20	1196	28	3240



2018-19	1396	32	3717
2017-18	1185	27	3428
2016-17	543	13	2549

*** Scholarly Journal Subscription**

Table B.10.4.1b Scholarly Journal Subscription

No. of Technical		No. of Technical Journals subscribed		Scholarly Journal Titles (in originals, reprints)
Year	Magazines/ Periodical	In Hard Copy	In Soft Copy	
2021-22	68	198	3344	IEEE – ASPP, DELNET - Pro Quest Consortium
2020-21	-	-	3152	IEEE, J-Gate, ASPP, DELNET
2019-20	77	180	3344	IEEE, J-Gate, ASPP, DELNET
2018-19	80	235	3344	IEEE, J-Gate, ASPP, DELNET
2017-18	83	244	4075	IEEE, ASTM, J-Gate, DELNET – Pro Quest Consortium
2016-17	73	259	4051	IEEE, J-Gate, ASPP, DELNET-Pro Quest Consortium

*** Digital Library**

- Digital Library Services : Yes

- Availability of digital library contents

If available, then mention number of course: 375 (NPTEL) (CSE, EEE, ECE, MECH and CIVIL)

Number of e-books : 8820

Number of e- periodicals : 3344

Number of e- proceedings : 9202



Number of e- Thesis	: 73101
Number of CD's, DVD's	: 3882
Internet connectivity	: 100 Mbps
MOOC Facility available	: Yes (Swayam Prabha)
• Availability of an exclusive server	: Yes
• Availability over Intranet/Internet Intranet	: Yes
• Availability of exclusive space/room	: Yes
• Number of users per day	: 90/ day



Figure B.10.4.1a Library – Journal and Magazines Store





Figure B.10.4.1b Library – Book stores



Figure B.10.4.1c Digital Library



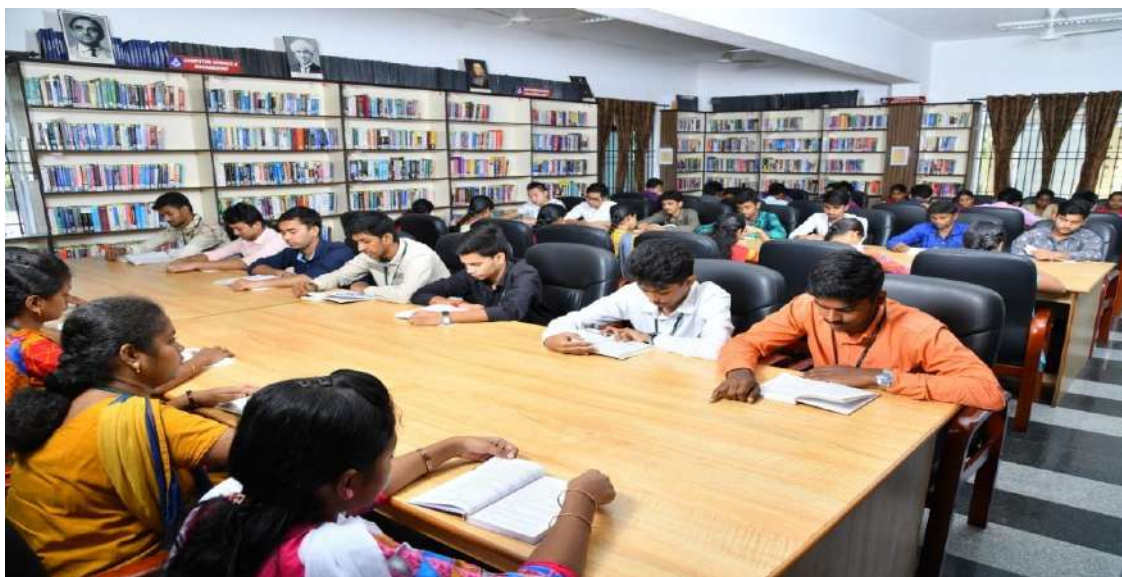


Figure B.10.4.1d Library – Reading Area

* Library expenditure on books, magazines/Journals, and miscellaneous contents

Table 10.4.1c Library Expenditures

Year	Expenditure in Rs. (Lakhs)			
	Book	Magazines/Journals (for hard copy subscription)	Magazines/Journals (for Soft copy subscription)	Misc. Contents
2021-22	3.04	1.39	7.45	0.13
2020-21	2.29	-	7.27	0.13
2019-20	11.25	5.82	7.14	0.13
2018-19	11.62	6.32	6.13	0.70
2017-18	11.89	6.55	6.99	0.77
2016-17	9.66	5.57	6.68	0.76

10.4.2 Internet

(10)



NANDHA
ENGINEERING COLLEGE (Autonomous)

- Name of the Internet provider: Ready link internet services-Fiber optic leased line 1:1
- Name of the Internet provider: Hyper band: Fiber optic leased line 1:1
- Available bandwidth: 500 Mbps
- Number of Computers available: 1024
- Wi-Fi availability: Available
- Internet access in labs, classrooms, library and offices of all departments are provided in detail in the following table.
- Security arrangements regarding CCTV arrangement and number of CCTV availability and monitoring details are provided in the following table CCTV camera section.

Table 10.4.2a Internet Details

S. No.	Item Name/Model	Item Description	Quantity
Server			
1	HP Blade Server	HP ProLiant DL580 G7, Intel Xeon E7520 (1.86GHz/4-core / 18MB / 95W/ 12MB(1 x 12MB) Level 3 Cache Memory : 32GB DIMMs PC3-10600R CIMMs (DDR3) in 2 memory boards Storage Controller : Embedded HP smart array P410i/512 MB FBWC controller Hard disk : HP (2x300GB) 6G SAS 10k rpm HP 1TB 6G SAS 7.2k rpm Network Controller : HP NC375i integrated Quad Port Multifunction Gigabit server adapter Power Supply : 2 HP 1200W common Slot Silver Hot Plug Power Supply Kit	1 No
2	HP Blade Server	HP ProLiant DL380e G8, Intel Xeon E5-2420 (1.9GHz/6core/15MB/7.2GT-s QPI/95W/DDR3-1333, HT, Turbo2) Memory : 16 GB 2RX4 PC3L-10600R-9 Kit /2x Storage Controller : HP smart array P420/1 GB FBWC controller/8SFF	1 Nos



		Hard disk : HP (2x300GB) 6G SAS 10k rpm SFF (2-5 inch) HP 1TB 6G SAS 7.2k rpm SFF (2-5 inch)	
		Network Controller : HP Ethernet 1GB-4 port 366i	
		Power Supply : 2 HP 460W CS Gold Hot plug power supply/HP fu gen 8 management arm cable	
3	HP Blade Server	HP ProLiant DL380e G8, Intel@ Xeon E5-2403 v2 (1.8GHz/ 4core/10MB/6.4GT-s QPI/80W,DDR3-1333)	1 Nos
		Memory : 8 GB(2X4GB) Registered DIMMs - PC3L-10600R (1333MHz) or 8Gb (1X8Gb) Registered DIMMs - PC3L – 12800R (1600MHz)	
		Storage Controller : HP smart array P420/1 GB FBWC controller	
		Hard disk : HP (2x450GB) 6G SAS 10k rpm SFF (2-5 inch)	
		Network Controller : HP Ethernet 1GB-4 port 366i Adapter	
		Power Supply : 2 HP 460W Common Slot Gold Hot plug power supply kit	
4	HP , HCL & LENOVA	Intel (R) Core(TM) i3-3220T CPU @ 2.80GHz 32-bit Operation System	1024 Nos
Firewall			
1	Checkpoint	Check Point 13500 next generation threat prevention appliances, security management predetermined system managing – 2 Gateway and 5-Blades, Check point smart event and smart reporter blades managing up to 2 gateway, check point mobile threat prevention per device, checkpoint collaborative enterprise for one year	1 Nos
LAN and Wireless Facility			
1	Sophos 50	Wireless	30 Nos
2	CISCO	Core switches, Distribution, Access switches and Accessories	52 Nos
Internet Access			
1	Bandwidth	Ready link internet services: Fiber optic leased line 1:1 Hyper band: Fiber optic leased line 1:1	500 Mbps



CCTV Camera			
1	IP camera	HIKIVision 2MP, DVR and accessories with 1 week data storage, Cb+	25 Nos

Table 10.4.2b Internet Access Provided Locations (LAN)

S.No	Department	Department Office	Laboratories	Class Rooms
Academic Department				
1	Agriculture Engineering	Faculty cabin (BV 101, BV 305)	-	Available
2	Biomedical Engineering	HOD cabin	-	Available
3	Civil Engineering	Dean Cabin, Staff room	Civil CADD lab	Available
4	Computer Science Engineering	HOD office, Staff room	CC2 lab	Available
			CC3 lab	
			CC5 lab	
			PG lab	
5	Chemical Engineering	HOD office	Chemical Analysis lab	Available
			Department Library	
6	Electrical and Electronics Engineering	Dean Office, Staff room(201, 304)	Computer centre XI	Available
			EST lab	
			SIP staff room (303)	
7	Electronics and Communication Engineering	Dean cabin (2Nos), Staff Cabin (6Nos), Dept Library (1Nos)	Simulation Lab	Available
			PG VLSI Lab	
			Project Lab	
8	Electronics and Instrumentation Engineering	HOD cabin (1Nos), Staff Cabin (2Nos)	-	Available
9	Information Technology	HOD cabin, Thulliam (company)	IT lab	Available
10	Mechanical Engineering	DEAN Office, HOD Office, Dept Office	UG CAD Lab	Available
			PG CAD lab	
11	MBA	HOD cabin, Faculty cabin	MBA lab	Available



		(2Nos)		
12	MCA	HOD cabin, Faculty cabin	MCA lab	Available
13	Physics	Faculty Cabin (1Nos)	-	-
14	Chemistry	Faculty Cabin (2 Nos)	-	-
Browsing Center				
1	CC 2 Laboratory (24x7)			
2	Central Library			
Admin/Support Department				
1	Accounts Office			
2	Principal Office			
3	Chairman Office			
4	Secretary Office			
5	AO Office			
6	CIPD office			
7	Controller of Examinations			
8	Exam Cell			
9	Estate Office			
10	PED			
11	HR			
12	Placement			
13	Boys Hostel Warden			
14	Girls Hostel Warden			
15	Automation Center			
16	Transport Office			
17	Board Room			
Internet Access Provided Location – Wireless Facility				
1	All Academic Blocks (Block -1,2,3,4,5,6,7,8,9)			
2	Boys Hostel			
3	Girls Hostel			
4	Central Library			
5	Conference Hall			
6	Principle Office			



7	AO Office
8	Controller of Examinations
9	HR





NANDHA ENGINEERING COLLEGE (Autonomous)

Affiliated to Anna University Chennai + Approved by AICTE + Accredited by NBA-NewDelhi
Pitchchandampalayam, (P.O), Vaikkalmedu, Erode - Perundurai Road, Erode - 638 052
Phone : 04294-225585, 223711, 223722, 226393 Mobile : 73737 23722 Fax : 04294 - 224787
E.mail : info@nandhaengg.org
Website : www.nandhaengg.org

DECLARATION

I undertake that, the institution is well aware about the provisions in the NBA's accreditation manual concerned for this application, rules, regulations, notifications and NBA expert visit guidelines in force as on date and the institute shall fully abide by them.

It is submitted that information provided in this Self-Assessment Report is factually correct. I understand and agree that an appropriate disciplinary action against the Institute will be initiated by the NBA in case any false statement/information is observed during pre-visit, visit, post visit and subsequent to grant of accreditation.

Date: 14.11.2022

Place: Erode -52



Signature & Name

Head of the Institution with seal

**Dr.N.Rengarajan, B.Sc., B.Tech., M.E., Ph.D.,
PRINCIPAL
NANDHA ENGINEERING COLLEGE
(Autonomous)
ERODE - 638 052.**

Annexure - I

PROGRAMME OUTCOMES (POs):

At the end of a programme a students will be able to demonstrate ability to

PO1: Engineering Knowledge: an ability to apply knowledge of mathematics, science and engineering

PO2: Problem Analysis: an ability to design and conduct experiments, as well as to analyse and interpret data

PO3: Design and Development of Solutions: an ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, ethical, safety, manufacturability and sustainability

PO4: Investigation of Complex Problems: an ability to function on multidisciplinary teams to solve complex problems

PO5: Modern Tool Usage: an ability to use the techniques, skills and modern engineering tools necessary for engineering practice

PO6: The Engineer and Society: an ability to infer societal, health, safety, legal &cultural issues and consequent responsibilities relevant to the professional engineering practice

PO7: Environment and Sustainability: an ability to explain, compare and summarize the impact of engineering solutions for sustainable development with societal and environmental perspective

PO8: Ethics: an understanding of professional and ethical responsibility

PO9: Individual and Team Work: an ability to function effectively as an individual / team in different environments

PO10: Communication: an ability to communicate effectively

PO11: Project Management and Finance: an ability to apply knowledge of engineering and management principles to the projects

PO12: Lifelong Learning: an ability to recognize the need for life-long learning

PROGRAMME SPECIFIC OUTCOMES (PSOs):

The Program Specific Outcomes (PSOs) of B.E., Mechanical Engineering are

- PSO1:** Ability to design mechanical systems with required specifications using latest software packages
- PSO2:** Ability to identify sustainable materials and technologies for alternate engineered solutions
- PSO3:** Ability to apply the concepts and principles of manufacturing engineering to innovate and to create products and processes with sustainable manufacturing
- PSO4:** Ability to provide solution to challenges in the solar thermal systems.