

NANDHA ENGINEERING COLLEGE

(AUTONOMOUS)

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

ERODE – 638 052 TAMILNADU

Department of Biomedical Engineering

NEC/BME/DAB-02/2023-24 (EVEN)

DATE: 26.04.2024

CIRCULAR

Originator:

Chairman - DAB

Circulated to:

Members of DAB & All faculty members

Sub: Departmental Advisory Board (DAB) meeting:

The DAB meeting is scheduled on 29.04.2024 to discuss the agenda listed below. In this connection, all the DAB members are requested to attend the meeting.

Date & Time of Meeting: 29.04.2024 (05.30 PM)

Venue: Online Mode (Link: <https://meet.google.com/fpn-sgen-ztq>)

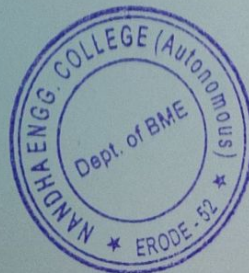
AGENDA

Item 2.01	Welcome and introduction of members.
Item 2.02	Review of the previous PAC meeting minutes.
Item 2.03	Result Analysis and attainment of 2023 - 2024 ODD semester.
Item 2.04	CAT Examination result and attainment of third year, identification of slow learners and corrective actions.
Item 2.05	Placement status of IV year (2024 Batch) students and training plan for 2021 - 2025 Batch students.
Item 2.06	R22 Regulation, Curriculum, Syllabus modification and amendments.
Item 2.07	Review of suggestions by the expert members.
Item 2.08	Any other information

To

All members of DAB,

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



[Signature]
26/4/24
CHAIRMAN - DAB



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DEPARTMENT OF BIOMEDICAL ENGINEERING

MINUTES OF THE DEPARTMENTAL ADVISORY BOARD (DAB) MEETING

Meeting No.: 02	Date: 29.04.2024	Time: 05.30 pm	Venue: Block – 4, BME – HOD Room	Year: 2023 - 2024
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The 2nd DAB meeting was held on 29.04.2024 by 05.30 pm at Block 4, BME – HOD Room. Dr. M. Dhipa, Chairman - DAB 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

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Item 2.02	Review of the previous PAC meeting minutes.
Item 2.03	Result Analysis and attainment of 2023 - 2024 ODD semester.
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Item 2.07	Any other information



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

Item 2.01	Welcome and introduction of members				
	<p>The Chairman of the DAB Dr. M. Dhipa, HoD-BME, welcomed the External Members,</p> <ul style="list-style-type: none">• Academic Expert: Dr. R. Vanithamani, Professor - Department of Biomedical Instrumentation Engineering, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore.• Industrial Expert: Mr. Boopathi Sakthivel Founder, CEO & Biomedical Engineer, Prashan Medical Technologies, Coimbatore.• Alumni: Mr. Aakash R, Data Analyst, Zifo RnD Solutions, Chennai. <p>- followed by the introduction of members.</p>				
Item 2.02	Review of the previous PAC meeting minutes				
Discussion	<p>Dr. M. Dhipa reviewed on the 4th PAC meeting minutes and reported the action taken.</p> <table border="1" data-bbox="280 1525 1497 1715"><thead><tr><th data-bbox="280 1525 890 1581">SUGGESTIONS OF 4th PAC on 16.04.2024</th><th data-bbox="895 1525 1497 1581">ACTION TAKEN AS PER SUGGESTION</th></tr></thead><tbody><tr><td data-bbox="280 1588 890 1715">The syllabus revisions should incorporate input from two industry experts and two academic experts, with the finalized draft to be submitted for the upcoming Board of Studies (BoS) meeting.</td><td data-bbox="895 1588 1497 1715">The feedback collected by the Sub-Committee members from the two industry experts and two academic experts was analyzed and feasible suggestions were implemented.</td></tr></tbody></table>	SUGGESTIONS OF 4 th PAC on 16.04.2024	ACTION TAKEN AS PER SUGGESTION	The syllabus revisions should incorporate input from two industry experts and two academic experts, with the finalized draft to be submitted for the upcoming Board of Studies (BoS) meeting.	The feedback collected by the Sub-Committee members from the two industry experts and two academic experts was analyzed and feasible suggestions were implemented.
SUGGESTIONS OF 4 th PAC on 16.04.2024	ACTION TAKEN AS PER SUGGESTION				
The syllabus revisions should incorporate input from two industry experts and two academic experts, with the finalized draft to be submitted for the upcoming Board of Studies (BoS) meeting.	The feedback collected by the Sub-Committee members from the two industry experts and two academic experts was analyzed and feasible suggestions were implemented.				
Resolution	Resolved to record				
Item 2.03	Result Analysis and attainment of 2023 - 2024 ODD semester.				



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Dr. M. Dhipa , Chairman presented the result analysis attainment of 2023-2024 ODD semester.

Fair performance by students noticed in 2023-24 ODD semester result analysis.

▪ **Result Analysis and attainment of the ODD semester (2023-24):**

Modest increase can be seen in term of the marks scored by the students. Pass percentage is improvised.

Year	Semester	Current Sem Pass Percentage	Overall Pass Percentage
I BME [2023 - 2027]	I	76.7%	76.7%
II BME [2022 - 2026]	III	62.9%	60%
III BME [2021 - 2025]	V	77.42%	74.19%
IV BME [2020 - 2024]	VII	88.68%	86.79%

▪ **III YEAR - BATCH [2021-25] / V SEM (2023-24):**

Subject code	Subject name	Pass %
17CYB03	Environmental Science	100
17ECC16	Analog and Digital Communication	100
17BMC04	Biosignal Processing	90.3
17BMC05	Biomedical Instrumentation-I	96.8
17EYZ04	Employability Enhancement and Analytical Skills	100
17ITX37	Problem Solving using Java	87.1
17BMP03	Biosignal Processing Laboratory	100
17BMP04	Biomedical Instrumentation-I Laboratory	100
17GED07	Constitution of India	
17BMX20	Hospital Planning, Organization and Management (Honor)	100
17BMX25	Hospital Waste Management (Honor)	100

Dr. R. Vanithamani appreciated the efforts taken in Results..

Discussion

Resolution

Resolved to record



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Item 2.04 CAT Examination result and attainment of third year, identification of slow learners and corrective actions.

Dr. M. Dhipa, Chairman discussed the CAT Examination result and attainment of third year, identification of slow learners and corrective actions.

III YEAR [2021-25] / V SEM (2023-24)

Course Code	Course Title	Staff Name	Pass %
17ECC13	Microprocessors and Microcontrollers Interfacing	Mr. A Amarnath Prabhakaran [AP/BME]	62.07
17BMC06	Medical Image Processing	Ms. K Thivyabrabha [AP/BME]	34.48
17BMC07	Biomedical Instrumentation-II	Mr. A Srihar [AP/BME]	64.29
17BMX01	Biomaterials	Ms. Sowparnika B [AP/BME]	73.08
17BMX03	Telehealth Technology	Dr. T Jayakumar [ASP/BME]	86.21
17GEA02	Principles of Management	Dr. M Dhipa [ASP/BME]	82.76

Discussion

Comparatively, courses with less pass percentage are:

- 17BMC06- Medical Image Processing
- 17ECC13- Microprocessors and Microcontrollers Interfacing
- 17BMC07- Biomedical Instrumentation-II

Faculties were asked to take remedial measures to improve the results.

SLOW LEARNERS AND CORRECTIVE ACTIONS:

Initiatives taken:

- Understanding the difficulties students face in their subjects for providing effective support and guidance.
- Encouraging students to attend classes regularly and follow instructions diligently for essential academic success.
- Providing simplified notes in hard copy format as a valuable tool for facilitating effective learning.
- Implementing scheduled home tests, with one course covered each day as an effective strategy to ensure consistent daily learning.



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Dr. R. Vanithamani insisted on to concentrated on the results.

Resolution Resolved to record

Item 2.05 Placement status of IV year (2024 Batch) students and training plan for 2021 - 2025 Batch students.

Dr. M. Dhipa – Chairman, presented the placement status of IV Year (2024 batch) students and training plan for 2021-2025 batch students.

IV YEAR PLACEMENT STATUS:

Total No. of Students Placed: 37 [CORE - 2 & IT - 15]

List of placed students with their salary package as follows,

S.No	Name of the Company	Pay Package at Appointment (LPA)	Core / IT	No. of Students Placed
1	JS HEALTH CARE	1.44	CORE	1
2	CARNA MEDICARE	1.8	CORE	2
3	PRABHA IMPEX	1.8	CORE	1
4	MEDVID HEALTH TEC	1.2	CORE	1
5	MEDITECH SOLUTIONS	1.2	CORE	1
6	ZIFO RnD SOLUTIONS	4.76	CORE	3
7	DIAGNO CARE LIFE SCIENCE	2.4	CORE	1
8	UNICORN MEDICALS	1.44	CORE	3
9	SAM ENTERPRISES	1.8	CORE	1
10	SAI MEDICAL SYSTEMS	1.8	CORE	2
11	SHREE MONITORING HEALTH CARE	1.8	CORE	1
12	EPISOURCE	2.11	CORE	5
13	AALAM SOFT	3.50	IT	1
14	MALLOW TECHNOLOGY	4.2	IT	1
15	OBJECTWAYS TECHNOLOGIES	1.8	IT	7
16	ZOHO	5	IT	1
17	KGISL	2.83	IT	1
18	FACE PREP	3.06	IT	4

III YEAR PLACEMENT STATUSTRAINING SCHEDULE:

Discussion



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S. No.	Name of the Company	Vendor	Topics	Estimated Dates
1	ZIFO	Internal	Aptitude, logical Reasoning and Essay Writing	22.05.2024 to 05.08.2024
2	TCS	Internal & External	Aptitude, logical Reasoning, verbal and Technical -C	22.05.2024 to 31.08.2024

Internal Faculty	Mr. R.Shankar & Mr. U.Shailendar
External	BYTS - C Programming Online Portal

Resolution Resolved to record

Item 2.06 R22 Regulation, Curriculum, Syllabus modification and amendments.

Dr. M. Dhipa presented the R22 Regulation, Curriculum, Syllabus modification and amendments.

ASSESSMENT SCHEME FOR COURSES:

Discussion

S. No.	Category of Course	Continuous Assessment (CA) marks	End semester Exam. (ES) marks	Total Marks	
a	Theory Courses	40	60	100	
b	Laboratory Courses	60	40	100	
c	Embedded Courses	Theory + Project (PBL)	40	60	100
		Theory + Laboratory	50	50	100
d	Project work	40	60	100	
e	Employability Enhancement Courses (EEC), One credit Courses, Mandatory Courses (non-credit), Mini Project, etc.	100	-	100	



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Theory Course			Practical Course		
Continuous Assessment	40 Marks		Continuous Assessment	60 Marks	
End Semester Examination	60 Marks		End Semester Examination	40 Marks	
Total			100 Marks		
Continuous Assessment Scheme for Theory Course (40%) A minimum of two continuous assessments will be conducted. Each assessment is to be conducted for 100 marks and will have to be distributed in two parts viz., Assignment (Team Assignment/ Individual Assignment/ Case study), Online tests, Seminar and CA Test with each having a weightage of 40% and 60% respectively.			Continuous Assessment Scheme for Practical Course (60%) 75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the test.		
Component	Marks		Components	Marks	
Two CAT exams.	2 x 60	:120	Experiments: • Preparation - 10 • Conduct of Experiments - 30 • Observation & Results -30 • Record -10 • Viva voce -20	100* (converted to 75)	
Two Online tests	2 x 15	30			
Two Team Assignment/ Individual Assignment/ Case study	2 x 20	40	Model Practical Examination I	50* (converted to 12.5)	
One Seminar	1 x 10	10	Model Practical Examination II	50* (converted to 12.5)	
Continuous Assessment Marks	200* (converted to 40)		Continuous Assessment Marks	100* (converted to 60)	

End Semester Examination Scheme for Theory Course (60%)	End Semester Examination Scheme for Practical Course (40%)
Examination duration : 3 hours Max. marks : 100 → Reduced to 60 marks	Examination duration : 3 hours Max. marks : 100 → Reduced to 40 marks

Embedded Course		
(a) Components of Embedded Course: Theory + Project (PBL): 100 marks		
Continuous Assessment (40%)		End Semester Examination (60%)
Two CAT exams	2 x 60 = 120 marks	Examination duration : 3 hours Max. marks : 100 → Reduced to 60 marks
Review 1	20 marks	
Review 2	20 marks	
Report	20 marks	
Online test	20 marks	
Total marks	200 marks *(converted to 40)	
Passing Requirement: Secure not less than 50% of total marks (including continuous assessment and end semester examination) subject to minimum of 45% of marks prescribed for the end semester examination (Clause 11.5).		



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(b) Components of Embedded Course: Theory + Laboratory =100 marks

Continuous Assessment (50%)				End Semester Examination (50%)	
Weightage for Theory 40%		Weightage for Laboratory 60%		Examination duration : 3 hours Max. marks : 100 → Reduced to 50 marks	
Two CAT exams.	2 x 60	Evaluation of laboratory Experiments	100* (converted to 75)		
Two Online tests	2 x 15	<ul style="list-style-type: none"> • Preparation -10 • Conduct of Experiments - 30 • Observation & Results - 30 • Record -10 • Viva voce -20 			
Two Assignments (Team Assignment/ Individual Assignment/ Case study)	2 x 20	Model Practical Examination I			50* (converted to 12.5)
One Seminar	1 x 10	Model Practical Examination II			50* (converted to 12.5)
Total CA marks	200* (converted to 40)	Total CA marks	100* (converted to 60)		

Passing Requirement: Secure not less than 50% of total marks (including continuous assessment and end semester examination) subject to minimum of 45% of marks prescribed for the end semester examination (Clause 11.5).

Assessment Scheme for Non-Credit courses:

Comments like **Very Good, Good & Satisfactory** will be given as qualitative measure of achievement.

Project Work (Marks: 100)
[Mini Project / Design Project / Project Work -1 / Project Work -2]

Project work will be evaluated by continuous assessment (40) and end semester assessment (60).

Continuous Assessment - 40 Marks		End Semester Assessment - 60 Marks	
	Marks		
Review - 1	10	Project Report	Internal Examiner 10
Review - 2	15	Project Report	External Examiner 10
Review - 3	15	Viva - voce	Internal Examiner 10
Total	40	Viva - voce	External Examiner 20
			Supervisor 10
		Total	60

The Head of the Department shall constitute a review committee consists of Head of the Department, Guide and a senior faculty member. There shall be three reviews during the semester by the review committee. The students shall make presentation on the progress made before the committee.

Resubmission of project:

If a student could not submit thesis in time /could not attend viva –voce exam/ could not complete the Industry project as per the specification of the Industry / fail to clear the project due to unforeseen circumstances, he/she is permitted to resubmit his work within 30 days after the publication of the results. Evaluation and passing requirements remain same as like regular project work course. Such resubmission of project work shall not be construed as an appearance for the eligibility of the student for the classification of the degree.



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R22 CURRICULUM:

SEMESTER: I									
S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PRE-REQUISITE	CONTACT PERIODS	L	T	P	C
1	22MAN01	Induction Programme	MC	-	-	-	-	-	-
THEORY									
2	22EYA01	Professional Communication – I	HSMC	-	4	2	0	2	3
3	22MYB01	Calculus and Linear Algebra*	BSC	-	4	3	1	0	4
4	22CYB01	Introduction to Biochemistry	BSC	-	3	3	0	0	3
5	22CSC01	Problem Solving and C Programming	ESC	-	3	3	0	0	3
6	22ECC02	Basics of Electrical and Instrumentation Engineering	ESC	-	3	3	0	0	3
7	22GYA01	தமிழர் வரலாறு / Heritage of Tamils	HSMC	-	1	1	0	0	1
PRACTICAL									
8	22GEP01	Engineering Practices Laboratory	ESC	-	4	0	0	4	2
9	22CSP01	Problem Solving and C Programming Laboratory	ESC	-	4	0	0	4	2
10	22CYP01	Chemistry Laboratory*	BSC	-	2	0	0	2	1
Mandatory Non Credit Courses									
11	22MAN02	Soft/Analytical Skills – I	MC	-	3	1	0	2	0
12	22MAN03	Yoga – I*	MC	-	1	0	0	1	0
TOTAL					32	16	1	15	22

SEMESTER: III									
S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PRE-REQUISITE	CONTACT PERIODS	L	T	P	C
THEORY									
1	22MYB06	Probability and Random Processes	BSC	-	4	3	1	0	4
2	22BMC01	Analog and Digital Electronics	PCC	22ECC04	3	3	0	0	3
3	22BMC02	Anatomy and Human Physiology (Theory + Lab)	PCC	-	5	3	0	2	4
4	22BMC03	Sensors and Measurements	PCC	22ECC02	3	3	0	0	3
5	22ECC06	Signals and Systems	PCC	22MYB01, 22MYB04	3	3	0	0	3
6	22CYB06	Environmental Science and Sustainability	ESC	-	3	3	0	0	3
PRACTICAL									
7	22BMP01	Analog and Digital Electronics Laboratory	PCC	-	4	0	0	4	2
8	22BMP02	Sensors and Measurements Laboratory	PCC	-	4	0	0	4	2
Mandatory Non Credit Courses									
9	22MAN07	Soft / Analytical Skills – III	MC	-	3	1	0	2	0
10	22MAN09	Indian Constitution	MC	-	2	2	0	0	0
TOTAL					34	21	1	12	24

SEMESTER: II									
S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PRE-REQUISITE	CONTACT PERIODS	L	T	P	C
THEORY									
1	22EYA02	Professional Communication- II	HSMC	22EYA01	4	2	0	2	3
2	22MYB04	Transforms and Partial Differential Equations*	BSC	-	4	3	1	0	4
3	22PYB03	Solid State Physics	BSC	-	3	3	0	0	3
4	22CSC02	Data Structures using C*	ESC	22CSC01	3	3	0	0	3
5	22ECC04	Electronic Devices and Circuits (Theory + Lab)	ESC	1	5	3	0	2	4
6	22GYA02	தமிழர் தொழில்நுட்ப வரலாறு / Tamils and Technology	HSMC	-	1	1	0	0	1
PRACTICAL									
7	22CSP02	Data Structures Laboratory*	ESC	22CSP01	4	0	0	4	2
8	22PYP01	Physics Laboratory*	BSC	-	2	0	0	2	1
9	22MEP01	Engineering Graphics Laboratory	ESC	-	4	0	0	4	2
Mandatory Non Credit Courses									
10	22MAN04	Soft/Analytical Skills – II	MC	22MAN02	3	1	0	2	0
11	22MAN05	Yoga – II*	MC	-	1	0	0	1	0
TOTAL					34	16	1	17	23

SEMESTER: IV									
S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PRE-REQUISITE	CONTACT PERIODS	L	T	P	C
THEORY									
1	22ITC06	Java Programming	ESC	-	3	3	0	0	3
2	22MEC13	Engineering Mechanics for Biomedical Engineers	PCC	-	3	3	0	0	3
3	22BMC04	Biomedical Instrumentation	PCC	22BMC03	3	3	0	0	3
4	22BMC05	Biosignal Processing	PCC	22ECC06	3	3	0	0	3
5	22BMC06	Biocontrol System	PCC	-	3	3	0	0	3
6	22BMC07	Biomaterials and Artificial Organs	PCC	22BMC02	3	3	0	0	3
PRACTICAL									
7	22ITP04	Java Programming Laboratory	ESC	-	4	0	0	4	2
8	22BMP03	Biosignal Processing Laboratory	PCC	-	4	0	0	4	2
9	22BMP04	Biomedical Instrumentation Laboratory	PCC	-	4	0	0	4	2
Mandatory Non Credit Courses									
10	22MAN08	Soft/Analytical Skills – IV	MC	-	3	1	0	2	0
11	22GED01	Personality and Character Development	MC	-	0	0	0	1	0
TOTAL					33	19	0	15	24



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SEMESTER: V										
S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PRE-REQUISITE	CONTACT PERIODS	L	T	P	C	
THEORY										
1	22BMC08	Microprocessors and Microcontrollers Interfacing	PCC	22BMC01	3	3	0	0	3	
2	22BMC09	Radiology Equipment	PCC	-	3	3	0	0	3	
3	22BMC10	Diagnostic and Therapeutic Equipment	PCC	22BMC04	3	3	0	0	3	
4	E1	Elective(PEC)	PEC	-	3	3	0	0	3	
5	E2	Elective(OEC/PEC)	PEC	-	3	3	0	0	3	
6	E3	Elective(PEC)	PEC	-	3	3	0	0	3	
PRACTICAL										
7	22BMP05	Microprocessors and Microcontrollers Interfacing Laboratory	PCC	-	4	0	0	4	2	
8	22BMP06	Diagnostic and Therapeutic Equipment Laboratory	PCC	22BMP04	4	0	0	4	2	
Mandatory Non Credit Courses										
9	22MAN10	Soft/Analytical Skills - V	MC	-	3	1	0	2	0	
10	22MAN11	Certification Course - I	MC	-	1	0	0	1	0	
TOTAL					30	19	0	11	22	

SEMESTER: VI										
S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PRE-REQUISITE	CONTACT PERIODS	L	T	P	C	
THEORY										
1	22BMC11	Fundamentals of Healthcare Analytics	PCC	-	3	3	0	0	3	
2	22BMC12	Medical Image Processing	PCC	-	3	3	0	0	3	
3	E4	Elective(OEC)	OEC	-	3	3	0	0	3	
4	E5	Elective(PEC)	PEC	-	3	3	0	0	3	
5	E6	Elective(PEC)	PEC	-	3	3	0	0	3	
6	E7	Elective(OEC/PEC)	PEC	-	3	3	0	0	3	
PRACTICAL										
7	22BMP07	Medical Image Processing Laboratory	PCC	-	4	0	0	4	2	
Mandatory Non Credit Courses										
8	22MAN12	Soft/Analytical Skills - VI	MC	-	3	1	0	2	0	
9	22MAN13	Certification Course - II	MC	-	1	0	0	1	0	
TOTAL					26	19	0	7	20	

SEMESTER: VII										
S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PRE-REQUISITE	CONTACT PERIODS	L	T	P	C	
THEORY										
1	22GEA01	Universal Human Values	HSMC	-	2	2	0	0	2	
2	EM1	Elective (Management)	HSMC	-	3	3	0	0	3	
3	E8	Elective(PEC)	PEC	-	3	3	0	0	3	
4	E9	Elective(PEC)	PEC	-	3	3	0	0	3	
5	E10	Elective(OEC)	OEC	-	3	3	0	0	3	
PRACTICAL										
6	22GED02	Internship / Industrial Training	EEC	-	2	0	0	0	2	
TOTAL					16	14	0	0	16	

SEMESTER: VIII										
S. NO.	COURSE CODE	COURSE TITLE	CATEGORY	PRE-REQUISITE	CONTACT PERIODS	L	T	P	C	
PRACTICAL										
1	22BMD01	Project Work	EEC	-	20	0	0	20	10	
TOTAL					20	0	0	20	10	



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LIST OF ELECTIVES:

- VERTICAL 1 - BIO ENGINEERING

<u>S. No.</u>	<u>COURSE TITLE</u>
1	Nuclear Medicine
2	Biometric Systems
3	Principles of Tissue Engineering
4	Genetic Engineering
5	Pattern Recognition Techniques
6	Radiotherapy Basics and Application

- VERTICAL 2 - OPTICS AND WEARABLE TECHNOLOGY

<u>S. No.</u>	<u>COURSE TITLE</u>
1	Communication Systems
2	Medical Optics
3	Body Area Networks
4	Medical Wearable Devices
5	Telemedicine and Medical IoT
6	Medical Informatics

- VERTICAL 3 - ARTIFICIAL INTELLIGENCE AND COMPUTATIONAL MODELING IN MEDICINE

<u>S. No.</u>	<u>COURSE TITLE</u>
1	Brain Computer Interface
2	Artificial Intelligence in Healthcare
3	Virtual Reality
4	Cognitive Technology for Biomedical Engineers
5	Machine Learning for Healthcare
6	Genomics

- VERTICAL 4 - BIOMECHANICS AND REHABILITATION

<u>S. No.</u>	<u>COURSE TITLE</u>
1	Ergonomics



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- 2 Finite Element Methods for Biomechanical Analysis
- 3 Bio Fluid Dynamics
- 4 Physiological Modeling
- 5 Rehabilitation Engineering
- 6 Haptics

- VERTICAL 5 - MANAGEMENT IN HEALTHCARE

<u>S. No.</u>	<u>COURSE TITLE</u>
1	Hospital Planning, Organization and Management
2	Finance Management in Hospitals
3	Human Resource Management in Hospitals
4	Hospital Architecture
5	Health Policy and Equipment Management
6	Hospital Waste Management

- VERTICAL 6 - ADVANCED HEALTHCARE DEVICES

<u>S. No.</u>	<u>COURSE TITLE</u>
1	Graphical System Design for Biomedical Engineers
2	BioMEMS Technology
3	Nanotechnology in Medicine
4	Robots in Healthcare
5	Advanced Healthcare System Design
6	Biomimetics

- VERTICAL 7 - MEDICAL DEVICE INNOVATION AND DEVELOPMENT

<u>S. No.</u>	<u>COURSE TITLE</u>
1	Foundation Skills in Integrated Product Development
2	Ambulatory Services
3	Home Medicare Technology
4	Biomedical Device Design Fundamentals
5	Innovation, Translation and Entrepreneurship
6	Rapid Prototyping



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Dr. R. Vanithamani raised question on keeping course entitled fundamentals of Healthcare Analytics during VI Semester.

- **Dr. M. Dhipa** highlighted that introducing a course titled "Fundamentals of Healthcare Analytics" during the VI Semester can be an excellent addition to a curriculum, especially for students pursuing studies in healthcare, data science, or related fields.

Mr. Boopathi Sakthivel insisted on encouraging students to do projects using platforms other than Arduino in upcoming semesters.

Mr. Aakash R was pleased with the elective list and appreciated the improvements in the curriculum compared to his batch.

Resolution Resolved to record

Item 2.07 Review of suggestions by the expert members.

Dr. M. Dhipa highlighted relevant suggestions provided by the expert members.

S. No	Name of the course	Name of Expert	Suggestions Provided
1	22BMC12 Medical Image Processing	Dr.Manimegalai	Regarding theory, Course and Laboratory course, the syllabus seems to be good .Course outcomes can be of various levels,i suggest. And Image Compression can be included in lab or theory at least.
2	Advanced Healthcare System Design	Dr. Masub Basha, BOT, MOT (Ortho)	Introduction to assistive technology will be a base for students to understand the need for digital equipment and the use of modern technology in health care practice. Exhibitions by stockholders in the specialty area would interest students
3		Dr.R.Helen	Syllabus content is updated and neatly framed. The COs 2.1 and 3.1, statements are generalized and syllabus content should mapped with the COs. Digital Radiology and E Health is not reflected in COs.



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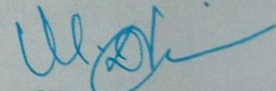
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	4	Robotics in Healthcare	A.Vishnu, M.E.,(P.h.D.,)	But in syllabus more important is given to Robotics.
Resolution	Resolved to accept			
Item 2.08	Any other information			
Discussion	Dr. M. Dhipa highlighted on the new TLP Pedagogy Implementation. <ul style="list-style-type: none">✓ Activity Based Learning.✓ Hands-On Laboratory Sessions using discrete components.✓ Field visits.✓ Assignments involving case study.			
Resolution	Resolved to accept			




CHAIRMAN – DAB



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DEPARTMENTAL ADVISORY BOARD MEETING

Result Analysis and Attainment
V SEM (2021-25)

S. No	COURSE CODE	COURSE TITLE	PASS %	ATTAINMENT		
				CO1	CO2	CO3
1	17ECC13	Microprocessors and Microcontrollers Interfacing	62.07	2.00	1.00	1.00
2	17BMC06	Medical Image Processing	34.48	1.00	1.00	1.00
3	17BMC07	Biomedical Instrumentation-II	64.29	2.00	1.00	1.00
4	17BMX01	Biomaterials	73.08	1.70	1.30	1.30
5	17BMX03	Telehealth Technology	86.21	3.00	2.00	2.00
6	17GEA02	Principles of Management	82.76	2.00	2.00	1.00

Identification of Slow learners and Corrective Actions

Name of the Slow Learners Identified	Year	Initiatives taken
ARUL M MAHARAJAN MOHAMMED ABUBAKKAR SIDDIQ M YASAR ALIA	III	<ul style="list-style-type: none"> Understanding the difficulties students face in their subjects by providing effective support and guidance. Encouraging students to attend classes regularly and follow instructions diligently for essential academic success.
ANBU SARATHI C GOWTHAM P GOWDHANAN A JITHA PRASATH M MOHANRAJ R PALANISAMY S	II	<ul style="list-style-type: none"> Providing simplified notes in hard copy format as a valuable pool for facilitating effective learning. Implementing scheduled home tests, with one course covered each day as an effective strategy to ensure consistent daily learning.