



## NEWSLETTER - YEARLY

### DEPARTMENT OF MECHANICAL ENGINEERING NANDHA ENGINEERING COLLEGE (AUTONOMOUS)

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## Vision

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

## Mission

- 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 encourage Research & Development in the thrust areas of engineering.



**Dr.N.RENGARAJAN, Ph.D.,**  
**Principal – NEC.**

It is my pleasure in congratulating the Department of Mechanical Engineering on the pleasant occasion of releasing the newsletter for the period 2017-2018. It is great to find a considerable number of winners and participants in co-curricular and extra-curricular activities which certainly prove that our faculty members and students are adequately equipped and possess the necessary skill sets to bring such laurels to the institution. I wish that this number may grow in the years to come. I am sure that publishing a newsletter containing the achievements will be recognition to hard work and I wish them all the very best for future endeavours.



**Dr. M. EASWARAMOORTHY, Ph.D.,**  
**Professor and Dean - Mech.**

Welcome and best wishes to all the friends of the department who receive this Newsletter. It has been an interesting and busy semesters for members of the Department. It gives me a great opportunity to present the third issue of "Medallions News-18". This internal newsletter is one of the ways in which we can disseminate information on the life of the Department. The past semesters were full of various activities by the students and faculty in academic, co-curricular, extra-curricular as well as research and developments. As you read through the pages you would realize, that the department had a successful semester. I would like to thank all my colleagues for their tireless efforts to help the department progress at a very steady pace.



**Prof. M.K. MURTHI, M.E., (Ph.D.), HoD-Mech.**

Welcome and best wishes for all the faculty members and Students of the department who receive this newsletter. It has been interesting and busy year for the members of the department, with a number of successful events including Guest Lecture, Workshop, National Level Conference and Symposium. I invite all the readers of this newsletter to share this with your friends and contribute more for 2018-19 Newsletters.



## DEPARTMENT OF MECHANICAL ENGINEERING 2017-18

### ABOUT MEDALLIONS NEWS

The Medallions news is the voice of Mechanical Engineering; it is a newsletter from the department of Mechanical Engineering which mainly focuses on the day-to-day happenings in the department. It speaks and visualizes the events happening in the department and the participation of students in various inter and intra college events. It encourages and brings out the talents of students in various fields.

### ABOUT DEPARTMENT OF MECHANICAL ENGINEERING

Mechanical Engineering is the core branch of Engineering and Technology, which plays an important role in the industrial growth of the nation. The department has well-equipped laboratories. Besides high quality teaching, the practical knowledge of students is enhanced through expert lectures by eminent persons from industry, and exposing them to industrial activities by industrial visits, Inplant training etc. Department has a team of dedicated faculty members, who strive hard to achieve the department's vision and mission in all aspects, the department creates flexible and innovative learning opportunities for students enabling them to enhance theoretical and professional skills. The department had been pioneering many quint-essential activities which leads to the development of the college. Final year U.G. and P.G students have presented and published technical papers based on their projects in National, International journals and conferences.

### INFRASTRUCTURE

The department is equipped with 12 diversified laboratories to cater the needs of the students and covering the curriculum specified by Anna University.

#### LABORATORY FACILITIES

Thermal Engineering Lab	Fluid Mechanics and Machinery Lab	PG CAD Lab
Heat Power Engineering Lab	Engineering Practices Lab	CAD CAM Lab
Mechatronics Lab	Manufacturing Technology Lab- I	Dynamics Lab
Metrology and Measurement Lab	Manufacturing Technology Lab- II	Research Lab

## ASSOCIATION INAUGURAL FUNCTION

Dr. T. Ram Prabhu, Deputy Director / Scientist, Defence R&D Organization, Bangalore and Thiru. Santosh Avannavar, Chief Commercial Officer, QtPi Robotics, Bangalore has addressed Nandha Engineering College (Autonomous), Mechanical students on 28.07.2017 during the inaugural function of Society of Mechanical Engineer. Thiru.V.Shanmugan, Chairman, Sri Nandha Educational Trust, presided over the function. Dr.N.Rengarajan, Principal, Dr.S.Arumugam, CEO, Thiru.S.Nandhakumar Pradeep, Secretary, Sri Nandha Educational Trust, Thiru.S.Thirumoorthi, Secretary, Nandha Educational Institutions felicitated the gathering and Dr.M.Easwaramoorthi Professor and Dean, delivered welcome address, Prof.M.K.Murthi, HoD introduced the chief guest.



*Dignitaries lighting lamp*

Chief Guest's interaction with students mainly focused on Recent Research in Aerospace Materials and Manufacturing Process. He added, to excel in the communication, possess sound basic knowledge about the mechanism. If they don't have the communication skill, it would be difficult for them to convey their ideas

conceived by them into final product. During the speech he motivated the students and staff members to involve more in Research & Development. He concluded the seminar with the research opportunities available in DRDO for Mechanical Engineers.

Prof. M. Muthukumar, proposed vote of thanks. Students and Faculty members actively participated in the function and interacted with resource person Dr. T. Ram Prabhu.

## ACADEMIC SEMINAR

The Department of Mechanical Engineering of Nandha Engineering College, Erode, has organized academic seminar on 21<sup>st</sup> July 2017. Thiru.V.Shanmugan, Chairman, Sri Nandha Educational Trust, presided over the function. Dr.B.Ashok, M.Tech., Ph.D. Assistant Professor, Department of Automotive Engineering, VIT University, Vellore, India, was the guest speaker for the session. He shared his experience and explored innovations and developments in the field of engineering and technology.

Dr.N.Rengarajan, Principal, Dr.S.Arumugam, CEO, Thiru.S.Nandhakumar Pradeep, Secretary, Sri Nandha Educational Trust, Thiru. S.Thirumoorthi, Secretary, Nandha Educational Institutions and Dr.M.Easwaramoorthi Professor and Dean, Department of Mechanical Engineering felicitated the gathering. Prof.M.K.Murthi, Head of the Department of Mechanical Engineering, proposed the vote of thanks. Students and Faculty members actively

participated in the lecture and engaged energetically in question answer session.



*Dr.B.Ashok,VIT University, shared his experience*

### INDUSTRIAL SEMINAR

Society of Mechanical Engineers has organized an industrial seminar on 28-07-2017. Dr.N.Rengarajan, Principal, inaugurated the seminar. Mr.Santosh Avannavar, Chief Commercial Officer, QtPi Robotics, Bangalore was the chief guest of the occasion. The expert shared their experience. Chief guest Mr.Santosh Avannavar motivated the students regarding the development in the Mechanical field and to make them self-ready for the upcoming target in their life.



*Honouring the chief guest by Principal.*

The seminar outlined about the various skills that the industry needs from fresher and the ways to

attain those skills by the students and the seminar also guided the students towards various opportunities that are available for the students once they finish their studies.

### INDUSTRIAL SEMINAR

Industrial Seminar on “Materials and Manufacturing for Aerospace Application” by Dr. T. Ram Prabhu, Deputy Director , Scientist, Defense R&D Organization, Bangalore, was arranged on 28-07-2017 at Conference Hall, Nandha Engineering College. Chief Guest’s interaction with students mainly focused on Recent Research in Aerospace Materials and Manufacturing Process.



*Dr.T.RamPrabhu interacting with Students*

### ACADEMIC SEMINAR

Academic Seminar on “Carrier Opportunities in Mechanical Engineering” by Dr.G.Nagarajan Professor, Department of Mechanical Engineering , CEG Campus Anna University , Chennai, was arranged on 27-10-2017 at Conference Hall, Nandha Engineering College. He spoke about the behavior and tips for improving characters in relation with professional life and interview tips for students. He highlighted importance of Mechanical Engineering and its vital role in our day to day life

and importance of time management. He concluded the seminar stressing importance to creativity in the field of engineering.



*Honouring the chief guest by principal*

### **HANDS ON TRAINING ONCREO 2.0**

Hands on Training on “Computer Aided Modeling (Creo 2.0) ” by ThiruV.S.Senthil Kumar , Managing Director, Diagonal CADD, Perundurai, was arranged on 30-12-2017 at Mechanical Engineering CAD Lab, Nandha Engineering College.



*ThiruV.S.Senthil Kumar interacting with Students*

### **WORKSHOP ON AUTOMOTIVE SYSTEM DYNAMIC**

Three days National level workshop titled “automotive system dynamic a Hands-on-Workshop” was organized on 12-02-2018 to 14-02-2018 at 10.00 a.m. at conference hall by Department of Mechanical Engineering and SAE India (Southern section) KRT

club. Mr.Prasanth Research Associate Over Square Automotive Pvt Ltd, Maharashtra was the guest speaker for the session. Students actively participated in the workshop and engaged energetically in question answer session.



*Participated students during the Hands on Training*

### **NATIONAL LEVEL TECHNICAL SYMPOSIUM**

Department of Mechanical Engineering conducted one day National Level technical Symposium on “Mech Medallions ‘18” on 16<sup>th</sup> March 2018. Welcome Address was given by Mr.S.Vignesh Secretary, SOME. Thiru.V.Shanmugan, Chairman, Sri Nandha Educational Trust, delivered the presidential Address. Key note address was given by Dr.N.Rengarajan, Principal, Nandha Engineering College. Felicitation address was given by Dr.S.Arumugam, CEO, Nandha Educational Institutions, Thiru. S.NandhakumarPradeep, Secretary, Sri Nandha Educational Trust, Thiru. S.Thirumoorthi, Secretary, Nandha Educational Institutions &Dr.M.Easwaramoorthi, Dean, Mechanical Engineering.

Prof.M.K.Murthi HOD, Mechanical Engineering introduced the Chief Guest ThiruM.Palanisamy, Manager, Lakshimi Presicion Tools, Coimbatore. He released the souvenir of the symposium and delivered the Chief Guest address.

Thiru.M.Palanisamy, Manager, Lakshmi Precision Tools, Coimbatore, Shared his experience with the students. Also stressed students to convert knowledge and positive attitude into skill and then the skills into habits. He highlighted the building strong linkage with the industry and also to promote the interaction between academia and industry by organizing industrial visits, projects in industry and special lectures. He also outlined the challenges faced inside industry. He briefed about the roles of learning other language which help to enter in MNC's and asked the students to develop their working skill and learn to work overtime shift. He added, motivated the students regarding the development in the Mechanical field and to make them self-ready for the upcoming target in their life. Finally the vote of thank was proposed by Mr.R.Gobi, Joint Secretary, SOME.



*Souvenir released by Dignitaries*

### EAGLE MAKING

Skeleton structure has been fabricated with MS square pipes, MS Sheet and SS sheet metals. The second phase consists of welding. The net weight of the eagle is around 150 kilogram. The process for the

Eagle was started from the last March 2018. It took around 14 days to complete the structure of the Eagle. The manufacturing cost of this sculpture was around Rs. 28,000. We are happy to present this creative sculpture of Eagle as a memory of Nandha Engineering College Logo. The team member involved in that sculpture were, P.Lalithkumar, V.Deepan raj, S.Aruljothi Final Year Students and U.Karthick Raja, M.Gopi Third Year Students of Mechanical Engineering.



*Chief Guest Thiru. M.Palanisamy, Manager, Lakshmi Precision Tools, Coimbatore with "Eagle"*

### INTER AND INTRA DEPARTMENT MEET

Enhances learning in both the affective and cognitive domains, to provide the opportunity for sharing of ideas and concerns. Our Department Association "Mech Medallions" conducted Intra and Inter Department Activities "WARFARE'17". Intra Department Competition on 21<sup>th</sup> September 2017 through 146 students was participated from our department. Inter Department Competition on 15<sup>th</sup> September 2017 through 222 students was participated from all Department.

## ONE CREDIT COURSES

Department of Mechanical Engineering initiated a new way of enhancing the industrial – scholar interaction through a system known as one credit course which brings in the industrial experts to interact with the students delivering a narrow syllabus targeting the skills required in industries. The course duration was 16 hours and the student's performance during the course was evaluated with a written exam. For Third Year students, two courses on PLC and ROBOT AUTOMATION USING MOTOSIM EG was conducted during the fifth semester. The courses were delivered to the students by Mr.Arun Balaji and K.KapilDev Axis Global Institute of Industrial Training, coimbatore. For Second Year, a course on CNC Machines and programming techniques was conducted during the Third Semester. The courses were delivered to the students by Malleswaran.K Program Director, Perfect CNC Education Centre, Coimbatore .

## PLACEMENT AND CAREER GUIDANCE

The Placement and Training centre of our institution is headed by Thiru. S.Thirumoorthi, Secretary. The centre organizes various training programs, like mock interviews, personality development courses, seminars, group discussions, invited talks and road shows of prospective employers. This will help students to achieve success in the placement.

90% of Mechanical Engineering students have been selected through placement drive by the following companies. Tech Mahindra, Young Mind

Solutions, OM Innovation Call Services Pvt. Ltd, Aagna Corporate Services, TCS, Saran Solar Solutions, Saraswathi Automation, GK Engineering, Sundarapuram, Coimbatore, Tenneco Automotive India Pvt Ltd, Classic Engineering, LGB Forge Limited, Sipcot Industrial Growth Centre, Dollar Industries Ltd, CADD centre training services etc.,

## INDUSTRY AND INSTITUTE INTERACTION

Numerous initiatives aiming at promoting interaction between the department and the industries are taken. This will have a great bearing on the Engineering Curriculum, exposure of industrial atmosphere to engineering students and subsequent placement of young graduating engineers in industries across the country. These objectives have been fulfilled by having fruitful partnerships with a few reputed industries.

## TWO DAY NATIONAL LEVEL SPONSORED SEMINAR

A two day seminar sponsored by National Commission for Women on "Challenges and Psychological aspects of women left behind farmer's suicide" was organized by the Department of Mechanical Engineering, Nandha Engineering College (Autonomous). ThiruV.Shanmugan Chairman, Sri Nandha Educational Trust presided over the function. Dr.N.Rengarajan Principal, Dr.S. Arumugam, CEO, ThiruS.Nandhakumar Pradeep, Secretary Sri Nandha Educational Trust, ThiruS.Thirumoorthi, Secretary Nandha Educational Institutions felicitated the gathering and Dr.M.Easwaramoorthi, Professor and Dean Department of Mechanical Engineering

delivered the Welcome address . Prof. M.K.Murthi, HoD, Department of Mechanical Engineering introduced the Chief Guest. Mrs. D. Helena, Assistant Executive Engineer – TANGEDGO, Erode inaugurated the seminar by the lighting of traditional lamp and addressed the participants of the seminar on the current critical status of the tropical farmers and their families of the region in South India. She highlighted the numerous factors which contribute towards the increase in farmer's suicide. The Guest also emphasized the ways that the major contributing factors such as frequent droughts, floods, debt, health issues, family responsibilities, changes in the government policies, alcohol addiction, low produce prices and poor irrigation facilities can be handled effectively. She concluded that the farming community as whole should have pride in doing their daily work stating that without their vital contribution by means of producing the needed food grains there cannot be any growth. She also underlined the need for organic farming and the cattle based income as an added income source for the farming community.

The Chief Guest for the second session was Mrs.Josphine, Madurai who had won three national awards for her pioneering work in apiculture; she shared her experience with the participants. She also motivated the participants to take up bee keeping as an additional option to increase the farmer's revenue. She stressed the medicinal values of natural honey and the benefits of taking honey as a supplement in their daily diet, also highlighted that certain forms of honey and the bee wax are currently being used as a

treatment for cancer. She advised the women participants to begin bee farming as a small start-up and also provided the ways to obtain the needed training and financial support from the agricultural universities and banks respectively.

Dr.Venkatachalam, former TNAU professor, suggested the implementation of joint farming management system. This system will reduce farmer suicides in India. In recent days, the central government has implemented Farmers producers' company scheme formed by farmers of producer groups. Farmers of same village should unite and form a joint farm management system. This would help farmers share their problems and prosperity with each other.

There have also been Guest speakers namely Dr.Srimathi Gomathi psychotics IRTPMC Perundurai and Mrs. Kumutha Law college Professor addressed the participants on the psychological strains experienced by women involved in farming community activities and the ways to deal with the emotional traits. Also guidance was provided about the various laws that help the women farmers and the relicts of the farming community to attain the needed financial independence.

Mr.Senapathy, Founder of Kangeyam Cattle Research Foundation had thrown light on the importance of cattle in farming. He highlighted the growing need for organic products in the current market and the contribution of cattle in organic farming. He also stressed the benefits of native cattle breeds compared to other hybrid varieties of cattle.



Mrs. D. Helena, Assistant Executive Engineer – TANGEDGO shared his experience



Group Photo of Office bearers with Dignitaries

Finally the program organizer, Mrs.A.D.Latha thanked all the participants of the program and guests for their valuable input.

### MEMORANDUM OF UNDERSTANDING

The general purpose of the MoU is to facilitate industry and institute interaction in terms of visits student projects, sharing the knowledge of expertise, research and consultancy cooperation between the parties.

Dr.N.Rengarajan, Principal, Nandha Engineering College, Dr.M.Easwaramoorthi Dean, Mechanical Engineering, successfully coordinated

formation of Memorandum of Understanding [MOU] on 22-06-2017, with Saran Solar System , Erode.



MOU with Saran Solar System

### INTERNSHIP RECRUITMENT

B.E Mechanical Engineering students are eligible to pursue internship for duration of one year in the industry starting from November to April. Internship stipend paid by these companies range from Rs. 8,000 to 15,000 Per Month. Based on the performance of the students in the internship the students will be absorbed and offered full time employment option by the end of their internship period. This year companies like L.G.B Forge Limited Coimbatore Fortuna Engineering, AEE BEE , M/s SaiSharan Electronics, M/s Rabwin Industries Pvt Ltd., M/s Shree Harie Steel and Alloys, M/s Sri Kumar Engineering Works, A.P. Engineers, Rengarajan Power plant, Apex Industries, Coimbatore, etc.,

### IN-PLANT TRAINING

The industrial visit is considered one of the most tactical methods of teaching. It provides students an opportunity to learn practically through interaction, working methods and employment practices. Moreover, it gives exposure from an academic point of view. In-Plant training is being



made compulsory for Mechanical Engineering students during summer vacations. This not only helps the students in acquiring knowledge about new technologies but also acts as an insight into management aspects. Students are expected to undergo training for a period ranging from 15 days to one month in an industry and submit a detailed report for evaluation after completion of their training in the following companies, Shri Senthil Andavar Machine Works, Tirupur, Mec Engineering Works, Tirupur, Diesel LOCO Shed, Southern Railway Erode, UNIQ Technologies, Chennai, Ambal Autos Ooty, Super Automobile And Engineering Works, Tirumala Press Components PVT Ltd, Chennai, Kathir Motors, Gobichettipalayam, Indian Rare Earths Ltd, Kollam Kerala, Periyasamy Hydraulic Equipments, Tirupur, Penninsula Engineers Texstar, Coimbatore, Venkatachalam TVS, Kovilpatti, Code Binding Technologies Chandran Graphic Tool, Tirupur , Emmpe Associates Ambal Autos Coimbatore, SPB Alloys Steel PVT. Ltd, Coimbatore, Paranthaaman Exporters, Perundurai, Subavalar Industries, Venbro Polymers.

### SOCIAL CLUB ACTIVITIES

Neyam social club of Mechanical Engineering Department in Nandha Engineering College conducted a program at blind school, Perundurai. Prof. M.Shanmugam welcomed the gathering and explained the activities of the program. Head of the Department Prof. M.K.Murthi and Coordinator of the Neyam Social Club Mr.B.Velliyangiri have distributed the Sweets and snacks to Bharathiyar child care home at Chennimalai on 10.10.2017. At the end of this

program the persons expressed their happiness to all the faculty members and students. The Chairman of Nandha Educational Trust Mr.V.Shanmugan and Secretaries of the Trust Mr.S.Nandhakumar Pradeep and S.Thirumoorthy, Principal Dr.N.Rengarajan and Dr.M.Eswaramoorthi, Dean of Mechanical engineering delivered their wishes and congratulations to the coordinator and the student members of Neyam Social Club.



*Prof.M.K.Murthi distributed the contributions to Bharathiyar child care home*



*Helmet awareness program*

Mr.Manikandan and our Students have volunteered tree plantation drive organized by Nizhalhal team and supported towards brining Positive Environmental and Social change in and around Vellakovil .

### BOARD OF STUDIES

Faculty members of NEC - Mechanical Engineering were actively involved in the designing and development of curriculum prepared by the

university, as board of studies (BOS) members.

They have the responsibility to frame the syllabus including all the required details. The BOS meeting was convened on 05.05.2018.



*BOS meeting with experts*

### **SPORTS DAY OVERALL CHAMPIONSHIP**

Department of Mechanical Engineering was awarded the overall championship for the academic year 2017-2018 during the annual sports meet held on 06.03.2017. Various track and field events such as football, cricket, volleyball, kabadi, badminton, 100, 200, and 4 x 100 metres relay were organized. Students have participated in the team and individual events and won many accolades contributing for the overall performance of Department of Mechanical Engineering.



*Winners of overall annual sports championship*

### **ZONAL LEVEL TOURNAMENT**

Anna university Athletic Meet was held at Bannari Amman Institute of Technology, Sathyamangalam from 27.09.17 to 29.07.17

- R.Sankarof Final Year Mechanical Engineering student won Silver Medal in Javelin Throw and 4x 400 mts Relay.
- K.Manivasakam of Final Year Mechanical Engineering student won Silver Medal in 1500 mts, 800 mts and also in 4x 400 mts Relay.
- S. Vasanthof Final Year Mechanical Engineering student won Silver Medal in 4x 400 mts Relay and Bronze Medal in 200 mts Athletics.
- P.I. Ajmal of First year ME Engineering Design won Silver Medal in Hemmer Throw.

### **INDUSTRIAL VISIT**

In relation to the academics, in every semester the students are visiting to various industries to develop their knowledge and to learn about the Industrial process what they are doing in their Industries. This will help them in getting job opportunities at industries.

Our Students visited the following Companies

- Third year students visited Anna Aluminium Company Cochin, (112 Students) & SIMTA group of Companies, Coimbatore (24 Students) on 16-09-2017.



Third Year students visited Anna Aluminium Company Cochin



Third Year students visited SIMTA group of Companies Coimbatore

- Final year students visited KaynesTechnology India (P) Ltd., Mysore on 28-07-2017 . (105 Students).



Final Year students visited KaynesTechnology India (P) Ltd., Mysore

- Second year students Visited DRDO Chennai (114 Students) &SubavalarPerundurai (61 Students) on 29-07-2017 .



Second Year students visited DRDO Chennai

- Firstyear students visited Doddabetta Tea Factory, Nilgris on 27-04-2018 . (96 Students)



First Year students visited Tea Factory

- First Year Students Visited Subhaval Industries , Perundurai on 01-11-2017 (105 Students).

The highest manifestation of strength is to keep ourselves calm and on our own feet.



## ISTE BEST CHAPTER AWARD

Nandha Engineering College was awarded the “Best chapter Award” on 10.04.2018 at Tagore Engineering College Chennai. The award was awarded by ISTE Tamilnadu and Pondicherry Section during the 17 th ISTE Annual Engineering Student Convention. Nandha Engineering College received the award for overall performance in ISTE chapter activities.



*Principal received the Best Chapter Award*

## HANDS ON TRAINING ON 3D PRINTING

One day Hands On Training titled “3D PRINTING” was organized on 16.03.2018 at CAD Lab by Department of Mechanical Engineering. V Engineering Solution, Coimbatore, was the chief guests who graced the occasion. The chief guests shared the stage along with the Management and Administration members of Nandha Engineering College. Thiru.V.Shanmugam, Chairman, Sri Nandha Educational Trust delivered the Presidential address and the key note address was given by Dr. N. Rengarajan, Principal, Nandha Engineering College.

Dr.M.Easwaramoorthi Dean, Mechanical Engineering welcomed the gathering. The chief guest

was introduced by Prof.M.K.Murthi HOD, Department of Mechanical Engineering.

The lecture was delivered to Mechanical Engineering Students . The workshop provided a live working demo of how a component is manufactured using 3D printing technology. The workshop provided a very good understanding about the function and working of an emerging technology. The lecture also highlighted the various areas of research that is being carried out in the field of 3D printing there by providing an area of future work for the students.



*Participated students during the Hands on Training*

## HANDS ON TRAINING ON NON DESTRUCTIVE TESTING

Hands On Training on “Non Destructive Testing” by Aurora Institute and Inspection Service was arranged on 16.03.2018 at NEC Conference Hall.



*Participated students during the Hands on Training*

## HANDS ON TRAINING ON AUTOMOBILE

The Department of Mechanical Engineering Of Nandha Engineering College, Erode, has organized Hands On Training on “AUTOMOBILE” on 16th March 2018.



*Dignitaries during the Hands on Training*

## WORKSHOP TRAINING ON ROBOTICS

The Department of Mechanical Engineering Nandha Engineering College, Erode, has organized workshop for students on “ROBOTICS” on 16<sup>th</sup> March 2018. Mr. A. Anbu, Application Engineer, Axis Global Automation Coimbatore, was the guest speaker for the hands on training.



*Participation during Workshop*

## WORKSHOP ON CREO

The Department of Mechanical Engineering Of Nandha Engineering College, Erode, has organized workshop on “CREO” on 16th March 2018.

## ONE DAY NATIONAL LEVEL SPONSORED SEMINAR

A oneday Nationwide competition sponsored by National Commission for Women on “Nationwide competition to create awareness about the legal rights of women ” was organized by the Department of Mechanical Engineering, Nandha Engineering College (Autonomous) on 11<sup>th</sup> October 2017. ThiruV.Shanmugan Chairman, Sri Nandha Educational Trust presided over the function. Dr.N.Rengarajan Principal, Dr.S. Arumugam, CEO, ThiruS.Nandhakumarpradeep, Secretary Sri Nandha Educational Trust, ThiruS.Thirumoorthi, Secretary Nandha Educational Institutions felicitated the gathering and Dr.M.Easwaramoorthi, Professor and Dean Department of Mechanical Engineering delivered the Welcome address . Prof. M.K.Murthi, HoD, Department of Mechanical Engineering introduced the Chief Guest. Mrs. D. Helena, Assistant Executive Engineer – TANGEDGO, Erode inaugurated the seminar by the lighting of traditional lamp. The Chief guest shared his experience and explored legal rights of women.

Finally the program organizer, Mrs.S.Subhasini Associate Professor Maths thanked all the participants of the program and guests for their valuable input.



*Winners received the prize from dignitaries*



*Nationwide competition written test*

## AWARDS AND ACHIEVEMENTS

### FACULTY ACHIEVEMENTS

- Dr. M. Easwaramoorthi qualified as a Certified Consultant for MSME (ZED Program) by Quality Council of India.
- Dr. N. Rengarajan, Principal and Dr. M. Muthukumar, Professor have received AICTE-RPS Grant of Rs.24,70,588/- for the project "Design and Development of proton exchange membrane fuel cell with novel cathode flow field for better water management and high performance".
- Dr.M.Easwaramoorthi, Dean and V.Subhashini Associate Professor Received a grant from National Commission for Women on "Nationwide competition to create awareness about the legal rights of women " amountRs 28650/-
- Dr.M.Easwaramoorthi, Dean and Mrs.A.D.Latha Associate Professor Received a grant from National Commission for Women on "India's farmers suicide; The women left behind" amount Rs 1,28,000/-

- Dr.M.Easwaramoorthi, Dean and K.Pradeep Kumar Associate Professor Received a grant from Indian Society For Technical Education "Advanced Technology In Micromachining"
- Dr. M. Easwaramoorthi& Four Mechanical Engineering Students (M. Kavin, P. Karnan, K. Karthimani, A. Karthick ) have received a project grant of Rs. 8500/- from TNSCST for the project titled "Automatic Crack Detection in railway track using Sensor".
- Best Project Award Received by Mr.M.Manikandan Assistant Professor inAdiyaman College of Engineering.

### STUDENTS ACHIEVEMENTS

- V.Jeganathan ,C.M.Avinash & S.Aravind second year mechanical engineering students have won First Prize in Project Presentation at Kongu Engineering College
- S.Rajesh Kumar second year mechanical engineering student has won First Prize & Second Prize in Paper Presentation & Code debunking at Kongu Engineering College
- C.Gokul second year mechanical engineering student has won First Prize in INSTRNICA at Bannari Amman Institute of Technology
- M.Saddiq, R.Sivasubramanian Third year mechanical engineering have won First Prize& Second Prize in CAD design & Welding at Bannari Amman Institute of Technology
- N.Ranjeeth Kumar Third year mechanical engineering has Second Prize in Mr.MECHANIC at Tamilnadu College Of Engineering.

- S.Nisanth has First Prize in Project Presentation at Kongu Engineering College
- R.Manikandan has First Prize in Idea presentation at Bannari Amman Institute Of Technology
- M.Ragunath has won First Prize in CAD MODELLING & Mr.MECH (Engine Assembling), at Tamilnadu College of Engineering & Bannari Amman Institute of Technology
- M.Ragunath has won Second Prize in AD Zap(advertising Given Product On The Spot ) Project Presentation at M Kumarasawamy College of Engineering Bannari Amman Institute of Technology
- Lalith Kumar P has won Second Prize In Hand On Machine at SNS College Of Technology
- A.L.Aravind, A.K.Arunprasath, Jelone Joseph, K.Gokulnath, T.Manojkumar, T.Poornachandran, D.Karthick, B.Kavin, R.Mathankumar, R. Kesavamoorthy & S.Karikalan has participated in a Workshop organized by NIT Thiruchy
- S.Aravind and M.Bharath Final year Mechanical Engineering students were got first prize in Paper presentation at Perumal Manimekalai College of Engineering at Hosur.
- S.Aravind and M.Bharath Final year Mechanical Engineering students were got first prize in Project presentation at Perumal Manimekalai College of Engineering at Hosur.
- S.Aravind and M.Bharath Final year Mechanical Engineering students were got first prize in CAD Modelling at Perumal Manimekalai College of Engineering at Hosur.
- S.Aravind and M.Bharath Final year Mechanical Engineering students were got first prize in MR.Mechanic events at Perumal Manimekalai College of Engineering at Hosur.
- S.Aravind and Mr.Lalith Kumar Final year Mechanical Engineering students were awarded the First prize for "Project Expo" at AVS Engineering college at Salem
- M.Mitran second year Mechanical Engineering students won the first prize for "Project Expo" at Hindustan College of Engineering and Technology, Coimbatore.
- M.Ragunath of Third Year was awarded the 1st prize in "Quiz" at KSR college of Engineering, Tiruchengode.
- M.Bharath and Mr.Lalith Kumar Final year Mechanical Engineering students were got second prize in Multimedia at VidhyaVikas college of Engineering and Technology at Tiruchengode.
- J.Vignesh final year Mechanical Engineering student won the second prize in "CAD Modeling" at Hindustan College of Engineering and Technology, Coimbatore and Kongu Engineering College at Perundurai.
- M.Vijayakumar final year Mechanical Engineering student won the third prize in "CAD Modeling" at Hindustan College of Engineering and Technology, Coimbatore.

## FACULTY PUBLICATION DETAILS

- Dr.M.Easwaramoorthi has published a paper titled "Investigation on Mechanical Properties of LM6 Aluminium Alloy – B4C – Fly ash Reinforced Composites using Stir Casting Process " in International Journal of Intellectual Advanced Research in Engineering Computations
- Dr.M.Easwaramoorthi has published a paper titled "Automatic Crack Detection Mechanism for Railway Track" in International Journal of Intellectual Advanced Research in Engineering Computations
- Dr.M.Easwaramoorthi has published a paper titled "Implementing Lean Concepts in Electrical Motor Manufacturing Industry" in International Journal of Intellectual Advanced Research in Engineering Computations
- Prof.M.K.Murthi has published a paper titled "Design and Fabrication of Radial Flow High Head Impeller in Submersible Pump" in International Journal of Intellectual Advanced Research in Engineering Computations
- Prof.M.K.Murthi has published a paper titled "Experimentation and Numerical Analysis of Bio fuel Applied in Automotive Fuel Tank" in International Journal of Intellectual Advanced Research in Engineering Computations
- Prof.M.K.Murthi has published a paper titled "Design and Fabrication of Braking System using Magneto -Rheological Fluid" in International Journal of Intellectual Advanced Research in Engineering Computations
- Prof.M.K.Murthi has published a paper titled "Experimental Analysis on Performance and Emission Characteristics of Karanja Oil Blends with Diethyl Ether as Additive in Diesel Engine" in International Journal of Intellectual Advanced Research in Engineering Computations
- Dr.M.Muthukumar has published a paper titled "Improving the Efficiency of the Boiler " in International Journal of Intellectual Advanced Research in Engineering Computations
- Dr.M.Muthukumar has published a paper titled "Reduction of Valve Scrap in Plasma Transferred Arc Welding" in International Journal of Intellectual Advanced Research in Engineering Computations
- Dr.M.Muthukumar has published a paper titled "Experimental Studies of PEM Fuel Cell - Review for Different Flow Field Designs " in International Journal of Intellectual Advanced Research in Engineering Computations
- Dr.M.Muthukumar has published a paper titled "Effect of Flow Channel Design on the Performance of Fuel Cell - Review" in International Journal of Intellectual Advanced Research in Engineering Computations
- Mr.V.Chandramohan has published a paper titled "Development of Acceleration System in Two Wheeler" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.V.Chandramohan has published a paper titled "Fabrication of Solar Drier for Rice

Processing Industries” in International Journal of Intellectual Advanced Research in Engineering Computations.

- Mr.V.N.Loganathan has published a paper titled “Design and Fabrication of Transmission System of Modern Mech Tech Go-kart Vehicle” in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.V.N.Loganathan has published a paper titled “Experimental Analysis of Secondary Air Injection in Lower CC Engine ” in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mrs.A.D.Latha has published a paper titled “Design and Fabrication of Writing Robot” in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mrs.A.D.Latha has published a paper titled “Fabrication of Compact Fork Lifter For Small Industries” in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.M.Sampathkumar has published a paper titled “Reduction of Rejection in Valve Manufacturing” in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.M.Sampathkumar has published a paper titled “Design and Fabrication of Sugarcane Plantation Machine ” in International Journal of Intellectual Advanced Research in Engineering Computations.

- Mr.M.Shanmugam has published a paper titled “Multi Objective Optimization in Turning of AISI 4340 Alloy Steel using Response Surface Methodology ” in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.M.Shanmugam has published a paper titled “Increasing of COP in Vapour Compression Refrigeration System by Reducing Compressor Work through Induced Diffuser between Evaporator and Compressor for same Refrigeration Effect” in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.K. Ganesan has published a paper titled “Experimental Studies on Hole Making Process Parameters using Abrasive Water JetMachining ” in International Journal of Intellectual Advanced Research in Engineering Computations
- Mr.S.Eswaran has published a paper titled “Design and Analysis of Bearing Assembly in Knuckle Steering using sensor ” in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.S.Eswaran has published a paper titled “Performance and Emission Analysis of Karanja oil Blends with Additive in Diesel Engine” in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.M.Sengottaiyan has published a paper titled “Enhancement of Mechanical Properties of EN31 Steel by Cryogenic Treatment” in

## International Journal of Intellectual Advanced Research in Engineering Computations

- Mr.M.Sengottaiyan has published a paper titled "Design and Fabrication of Tapioca Harvesting Machine" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.M.Sugumar has published a paper titled "Design and Fabrication of LPG Refrigerator" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.K. Pradeep Kumar has published a paper titled "Semi-Automatic Gear Shifting Mechanism in Two Wheeler" in International Journal of Intellectual Advanced Research in Engineering Computations.
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- Mr.S.Muruganantham has published a paper titled "Experimental Analysis and Simulation of Thermal Field Dispersal during Welding of Dissimilar Material" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.S.Muruganantham has published a paper titled "Performance and Emission Analysis of Karanja Oil Blends with Additives in Diesel Engine" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.D.Ravichandran has published a paper titled "Fabrication of Solar Refrigeration using Peltier Effect" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.D.Ravichandran has published a paper titled "Design and Analysis of Impeller-Openwell Monoblock Pump Efficiency Improvement" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.B. Velliyangiri has published a paper titled "Performance analysis of Economizer using Wrought Iron Tubes" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.B.Velliyangiri has published a paper titled "Experimental investigations on mechanical properties of coconut spathe fiber reinforced composites with epoxy and polyester matrices" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.M. Mohamed Ajmal Mahasin has published a paper titled "Design and Analysis of Electromagnetic Suspension System in Automobiles" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.M. Mohamed Ajmal Mahasin has published a paper titled "Design and Analysis of Press Tool for Combining Pre Crimping and Final Crimping Operation in Horn" in International

Journal of Intellectual Advanced Research in Engineering Computations.

- Mr.R. Vinoth has published a paper titled "Design and Analysis of Airless Tire for Two Wheelers Using additive manufacturing technology" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.M. Manikandan has published a paper titled "Reduction of Unforged Bar Bulb in Engine Valve Manufacturing" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.B.Sakthivel has published a paper titled "Design and Impact Analysis of Go-Kart Chassis" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.B.Sakthivel has published a paper titled "Experimental Investigation of Stainless Steel 316 and Mild Steel A36" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.S.Balakrishnan has published a paper titled "Experimental Investigation on the Performance and Analysis of Cooling Tower with Different Fan Material and Blade Angle " in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.S.Gejendhiran has published a paper titled "Fabrication of Gripping Jaws and Optimizing the Process Parameter Values in Upsetting Machine " in International Journal of

Intellectual Advanced Research in Engineering Computations.

- Mr.S.Gejendhiran has published a paper titled "Optimization and Analysis of Steam Turbine Operation and Maintenance " in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.A. Karthy has published a paper titled "Design and Fabrication of Milling Fixture using Poko-Yoke Method to increase the Productivity" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.Omprakas.M.A has published a paper titled "Design and Analysis of Pick and Place Robot Arm Unit to Transfer Brake Drum Casting to Fettling Process" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.Omprakas.M.A has published a paper titled "Analysis of Cold Metal Defect in Casting by Using Six-sigma Method " in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.T.Venkateshan has published a paper titled "Performance Analysis of Economizer by Adding Extra Coils " in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.R.Arjunraj has published a paper titled "Performance Enhancement of Cooling Tower" in International Journal of Intellectual Advanced Research in Engineering Computations.

- Mr.R.Arjunraj has published a paper titled "Portable Cam Operated Coconut Cutting Machine" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr G. Kannan has published a paper titled "Fabrication of Reactor for converting Plastic into Useful Fuel" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr G. Kannan has published a paper titled "Design of Automatic River Cleaning System" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr G. Kannan has published a paper titled "Review on Design of Automatic River Cleaning System" in International Journal of Intellectual Advanced Research in Engineering Computations.
- Mr.T.Venkateshan has published a paper titled "Solar Assisted Desiccant cooling system – A critical review" in International Journal of Intellectual Advanced Research in Engineering Computations.
- M. Balakumaran has published a paper titled "Design and Fabrication of Beam Gauge Apparatus" in International Journal of Intellectual Advanced Research in Engineering Computations.
- M. Balakumaran has published a paper titled "Experimental Analysis of Condenser to Improve the Efficiency in Thermal Power Plant" in International Journal of Intellectual

Advanced Research in Engineering Computations.

### MALAYSIA INTERNSHIP

Jaseem Mohammed, P.V.Kavinkumar, and B.Kumaravel final year mechanical engineering students have undergone Research Attachment Program at Universiti Teknologi Petronas, Malaysia.



*Internship students*

### ALUMNI MEET

Alumni meet was arranged on Sunday, 21<sup>th</sup> March 2018, at 3.00 P.M Mechanical Engineering Department. All Alumni were cordially invited to rejoice the wonderful evening It was a great time to relight old memories, meet old friends, and talk about old times and share new experiences and thoughts. The main objective behind this event is to brief about college activities, to check possibility of partnership between past students and college for lab developments to create awareness between passed out students as well as Faculty of NEC MECH.



Group Photo of alumni with Dignitaries

### Glimpse



### RESEARCH ACTIVITIES

The Department of Mechanical Engineering has been playing the role of major funding agency for research and development.

The main goal of the Department in the function of strengthening basic research and development to increase the scientific outputs in the form of scientific publications and patents by way of improved R&D funding systems. Several new initiatives have been taken up by the Department including a special scheme for promoting excellence in research among researchers.

Dr. M. Muthukumar has submitted for his Thesis book Title “Scaling up studies on water management issues for performance improvement of Proton exchange membrane fuel cell” for copyright.



S.No	Faculty Name	Research Area
1	Dr.M.Easwaramoorthi	Lean Manufacturing
2	Prof.M.K.Murthi	Alternative Fuel
3	Prof.M. Muthukumar	Fuel Cell
4	Mr.M.Manikandan	Tribology



**ACADEMIC TOPPERS**

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**PONRAJ.B - II**



**KUMARAVEL B-III**

**M.E., ED (PG)**  
**(2016-18 Batch)**



**SATHISH.M-I**

**(2015-19 Batch)**



**KESAVA MOORTHY R- I**



**PATTUSAMY.A-II**



**KRISHNA MOORTHY.S- III**



**VIVEK R - II**

**(2016-20 Batch)**



**PRAVEEN R- I**



**KAVIN G -II**



**JEEVANANTHAM M -III**



**AJMAL P I -I**

**(2017-19 Batch)**

**(2017-21 Batch)**



**SURENDAR M - I**



**MITHUNKUMAR N- II**



**KATHIRAVAN M- III**



**MANIKANDAN M- III**

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