

NEWSLETTER 2018-2019

APRIL 2019

VISION

The Mechanical Engineering Department aspires to be acclaimed globally for renowned education and research, to accelerate well qualified Engineers who are creative, entrepreneurial and flourishing in advanced fields of Engineering and Research.

MISSION

Higher Order Thinking: To assure quality education to the students and broaden their profession to make them globally competent Mechanical Engineers.
Continuous learning: Nurturing vital state of art, research facility to provide students and faculty with outstanding opportunities to discover, illustrate, implement and disseminate wisdom.

Competency: To develop alliance with world class R&D organizations and Educational Institutions in India and overseas for teaching, research and consultancy services.

Entrepreneurship: To provide the students with academic environment of excellence, leadership and ethical guidelines needed for lifelong prospective career.

DEPARTMENT OF MECHANICAL ENGINEERING

Undergraduate education (UG) course B.Tech in Mechanical Engineering is a comprehensive degree program. The goal of the Mechanical Engineering curriculum is to create a flexible undergraduate educational experience in Design, Mathematics, Modeling, computation, Quality management, Engineering science & humanities. The Department of Mechanical Engineering has been continuously striving to make progress in Teaching and Research. The Department was started with an intake (UG) of 60 students in 2012 and 120 students from 2015. The Mechanical Department is well equipped with excellent laboratories to make the students to easily understand and study the latest specialization like 3-D printing, solid works, DFMA, Composite, Robotics etc and also has separate Department library houses best books in the technical field this vast reservoir of knowledge is a source of constant value addition to the students and faculty members the library's rich in manufacturing, design, metallurgy, drawing and materials science. To enhance the Technical Skills of the students, the Department also organizes various program such Value-added course, Quiz completion, Seminars, Workshops, Industrial visit and Guest lecturers which would make them globally competitive as well as students become an indispensable Engineer and earn the income they deserve. The Mechanical Engineering Department was established in the year 2012. The department has established Manufacturing process lab, Dynamics of Machines, Material Testing and Metallurgy, CAD, CFD labs, Fluid machinery lab, Thermal Engineering Lab, Metrology and Measurements at an investment of about Rs. 2 Crores. The labs are equipped with world class Hi-Tech equipments and Machineries to meet the latest Technological innovation.

GOALS AND STRATEGIES

- a. Ensuring the preeminence of learning.
- b. Providing high quality programs that meet the evolving needs of our students, community and sector.
- c. Ensuring scholarly and creative activity.
- d. Making collaboration integral to our core sectors.
- e. Creating an environment where all students have the opportunity to succeed.
- f. Expanding connections and partnerships with our Sectors.

DEPARTMENT ACTIVITIES

“VIBRANT 2K19” on the occasion of Mitilence



VIBRANT 2K19 was organized by the Department of Mechanical Engineering on the occasion of MITILENCE A National level technical symposium conducted on 7th & 8th February 2019. Totally 234 registrations were made for the two days events from various colleges in Pondicherry and Tamilnadu State. The winners were awarded with cash prizes of Rs.1000, Rs.500 and certificates.

SPECIAL EVENT-RC RACING

- 6 teams were participated in this event.
- The Winners were awarded cash prizes Of Rs.10000, Rs.5000 and certificates.
- Single Member Also Can Participate.
- Entry Fee For Nitro Vehicle - 1,500/-
- Entry Fee For Electric Vehicle - 500/-
- 4.5cc and Below Engines Can Be Used.
- 1:10 And 1:8 Size Cars Are Only Used
- Safety Is Our First Priority; If Your Car Is Likely To Damage The Track Or Other Cars You May Be Disqualified.



Glimpses of Vibrant 2k19



VIBRANT 2K19 BANNERS



BISCUIT CHALLENGE



BOTTLE ROCKETRY



PAPER PRESENTATION

ONE DAY WORKSHOP “ADVANCED PRODUCTIVITY TECHNIQUES”

One day workshop on “Advanced Productivity Techniques” was conducted for Mechanical Engineering Students on 20th February 2019.

Mr.K.Palani was the chief guest for the program “Advanced Productivity Techniques”. In the initial stage of presentation he narrated the importance of safety methods followed in organization. Also he differentiated about unsafe act and unsafe condition with the help of video presentation. He also explained about different kinds of accidents occurring within industry by case study oriented illustration then he covered about the tools used for measuring causes for the accident that is root cause analysis in that he told about Hazard Identification and Risk Assessment (HIRA). In this method there are three steps to identify the risk assessment they are hazard identification ,risk assessment and risk control .At work you can use these three Safe steps to help prevent accidents.

Then next session was followed by Mr.V.Kamesh, Quality Head, Whirlpool India Pvt Limited. He explained about the importance of Failure Mode Effects and Critical Analysis (FMECA) practiced in industrial set up. The objective of this tool is to identify the potential failures occurring in the product or process development based on that various types of failures occurring in the product can be categorized as severity, Medium and Marginal failure .In between some case studies are presented for better understanding about the concept.



GUEST LECTURE PROGRAM

A guest lecture was organized by the Department of Mechanical Engineering and ISTE Student Chapter on the topic “NON DESTRUCTIVE TESTING & WELDING INSPECTION” on 4th Feb 2019.

Mr. T.V.Subash, Senior Manager (Rtd), Bharat Heavy Electricals Limited, Tiruchirappali was the chief guest of the guest lecture program on “Non Destructive Testing & Welding Inspection”. He has shared his industrial experience with students for improving the technical skills and explained about concept of NDT testing methods used in quality department. He also shared the various career opportunities for Mechanical Engineers in India and abroad. His lecture was so motivational and he created a positive aura, which moves the students towards optimism. It was a great experience and very useful lecture to the students.

MOU Signing

Hyoseong Electric India Private Limited is a Private incorporated on 21 December 2006. It is classified as Non-govt Company and is registered at Registrar of Companies, Chennai. Its authorized share capital is Rs. 310,000,000 and its paid up capital is Rs. 307,954,432. It is involved in Sale of motor vehicle parts and accessories. Department of Mechanical Engineering signed MOU with Hyoseong electric India pvt ltd, a Korean based MNC.



ENERGY RALLY

Er.G.Kaniyamuthan, Executive Engineer, Electricity Department-Urban, Puducherry, has flagged off the rally on the basis of ENERGY CONSERVATION. Third year and Second year students visited in and around Madagadipet to create awareness on Energy and its conservation.



STAFF ACTIVITIES

S.NO	NAME OF THE FACULTY	PAPER TITLE	CONFERENCE/WORKSHOP	THEME OF CONFERENCE	VENUE	DATE
1.	Dr.B.RADJARAM	AUTOMATING THE MANUAL FIXING OF AXLE ON BUSH IN THE ABS SLEEVE AND ENSURING SAFETY OF LABOR	INTERNATIONAL CONFERENCE	ICSCAN 19	MVIT	29/3/19
2.	Dr.B.RADJARAM	DESIGN OF POWER WHEEL CHAIR FOR DIFFERENTLY ABLED PERSON	INTERNATIONAL CONFERENCE	ICSCAN 19	MVIT	29/3/19
3.	Dr.B.RADJARAM	DESIGN AND FABRICATION OF HANDICAPPED VEHICLE	INTERNATIONAL CONFERENCE	ICACCES 19	BCET	15/3/19
4.	Mr.A.THAGARAJAN	IMPROVING THE EFFICIENCY OF SOLAR PANEL BY ACTIVE COOLING METHOD USING NANO FLUIDS	INTERNATIONAL CONFERENCE	ICRTCRET 19	SSMET	20/3/19
5.	Dr.P.SIVASANKARAN	AUTOMATIC CONDITION MONITORING TO DETECT CRACKS IN ROTATING SHAFTS	INTERNATIONAL CONFERENCE	ICRTCRET 19	SSMET	20/3/19
6.	Mr.E.SURESH	CHARACTERIZATION OF ALUMINUM METAL MATRIX COMPOSITES REINFORCED WITH SLY ASH AND RICE HUSK ASH	INTERNATIONAL CONFERENCE	ICACCES 19	BCET	15/3/19
7.	Mr.R.RANJIT KUMAR	STUDY OF NATURAL COMPOSITE USING RICE STRAW PISTA SHELL AND SEA SHELL POWDER WITH EPOXY RESIN	INTERNATIONAL CONFERENCE	ICACCES 19	BCET	15/3/19
8.	Mr.K.SELVAM	STUDY OF MECHANICAL PROPERTIES OF MAGNESIUM AZ31B COMPOSITE REINFORCED WITH SILICON CARBIDE	INTERNATIONAL CONFERENCE	ICACCES 19	BCET	15/3/19

9.	Dr.P.SIVASANKARAN	SEGREGATION OF RUNNER AND THE PRODUCT IN INJECTION MOULDING MACHINE	INTERNATIONAL CONFERENCE	ICACCES 19	BCET	15/3/19
10.	Mr.M.THIRUNAVUKARASU	DESIGN AND FABRICATION OF MULTIPURPOSE MACHINE FOR AGRICULTURE	INTERNATIONAL CONFERENCE	ICRTCRET 19	SSMET	20/3/19
11.	Ms.R.VIJI	ARDUINO BOARD IN AUTOMATION OF MULTIPURPOSE MACHINES	NATIONAL CONFERENCE	NCAMME 19	SREC	15/3/19
12.	Ms.R.VIJI	PATH PLANNING FOR AUTONOMOUS MOBILE ROBOT USING PID CONTROLLER	INTERNATIONAL CONFERENCE	ICACCES 19	BCET	15/3/19
13.	Mr.S.GANESHKUMAR	ALUMINUM MATRIX COMPOSITE REINFORCEMENT WITH TUNGSTEN CARBIDE BY USING STIR CASTING	INTERNATIONAL CONFERENCE	ICACCES 19	BCET	15/3/19
14.	Mr.B.VASANTH	TROUBLESHOOTING AND REDUCING THE DEFECTS IN PET BOTTLES	NATIONAL CONFERENCE	NCAMME 19	SREC	15/3/19
15.	Mr.S.GANESHKUMAR	DESIGN AND FABRICATION OF FOUR WHEEL HYDRAULIC LIFTER	NATIONAL CONFERENCE	NCAMME 19	SREC	15/3/19
16.	Mr.B.VASANTH	IMPLEMENTATION OF AUTOMATION IN MATERIAL HANDLING EQUIPMENT	INTERNATIONAL CONFERENCE	ICIEI 19	TRPEC	13/3/19 14/3/19
17.	Mr.K.KARTHIGAYAN	DESIGN AND FABRICATION OF SOLAR OXY HYDROGEN GENERATOR	INTERNATIONAL CONFERENCE	ICIEI 19	TRPEC	13/3/19 14/3/19
18.	Mr.S.GANESHKUMAR	FABRICATION AND TESTING OF NATURAL COMPOSITE MATERIAL WITH EPOXY RESIN AS MATRIX AND CORN FIBER , CHICKEN FEATHER , HUMAN HAIR AND PALM FIBER AS REINFORCEMENT	INTERNATIONAL CONFERENCE	ICIEI 19	TRPEC	13/3/19 14/3/19
19.	Mr.R.KARTHIKEYAN	DESIGN AND FABRICATION OF MAGADO AIR CONDITIONER	INTERNATIONAL CONFERENCE	ICRTCRET 19	SSMET	20/3/19

Dr. B. Radjaram, Professor and Head, Department of Mechanical Engineering has applied funded project under AICTE (MODROBS - Modernisation & Removal of Obsolescence) scheme for Rs 1,588,235.29.

Dr. B. Radjaram, Professor and Head, Department of Mechanical Engineering has applied STTP under AICTE (Short term training Program) scheme on the title "Recent Trends in Corrosion Management and Its Prevention"

Dr. B. Radjaram, Professor and Head, Department of Mechanical Engineering sworn in as Honorary Secretary of Institutions of Engineers India, puducherry state centre. The Installation function was felicitated by the chief guest Hon. Education Minister Thiru R. Kamalakannan.

Dr. B. Radjaram, Mr. K. Karthigayan, Mr. A. Thiagarajan and Mr. R. Ranjit Kumar attended a national level conference named as URJAVAN 2019 in IGCAR, Kalpakkam on CLIMATE CHANGE EMERGING SOLUTIONS "Join hands to conserve energy & to protect earth for the future".

Dr. P.Sivasankaran, Assistant Professor , Department of mechanical engineering has published a paper titled as "Segregation of runner and the product in Injection moulding machine", International Journal on Emerging Trends in Mechanical and Production Engineering, Vol 3, Issue 1- 2019



STUDENT ACTIVITIES

MIT Student traffic awareness cycle campaign

Third year student **Mr.Prem Kumar** started an awareness campaign cycle tour to create traffic rules awareness among public.

Mr.C.Maran Superintendent of Police, Puducherry participated as a chief guest and flagged off the awareness campaign by Mr.Prem Kumar from Puducherry beach near Gandhi statue. He also said that in the current scenario, usage of vehicle is increasing and people should understand and follow the traffic rules properly to avoid accidents, it is easy for volunteers like Prem Kumar to bring it to the public and also he wished him for the awareness campaign to become a grand success.

.This cycle awareness campaign journey took place for one week via Puducherry, Cuddalore, Chidambaram, Sirkazhi, Karaikal, Nagai, Thiruvarur, Trichy, Kumbakonam, Sethiathoppu, vadalur and return back to Puducherry. It is noteworthy that Prem Kumar has already received an award for the best social services.



Appreciation for cycle campaign of Mr. Premkumar from our principal, Hod and he received Kalam book of World records in the occasion of Sigarathai thodu.



Hon. Lt. Governor Kiran Bedi with her blessings and token of appreciation to Mr. Prem Kumar

✂ **Mr. V. Naresh** of Final year Mechanical Engineering Student has successfully cleared GATE (The Graduate Aptitude Test in Engineering) 2019 with good marks.

✂ **Mr.R.Hariharan, Mr.Purushothaman.D, Mr.Yuvaraj.R, and Mr.Sakthiperumal.M** of Final year Mechanical Engineering Student has participated at paper presentation competition at Karpaga Vinayaga college of engineering & Technology and won the best paper award for the project titled as "Study of Mechanical properties of Hybrid Composite Aluminium as matrix Tungsten Carbide and graphite as reinforcement Fabricated via Friction Stir Process(FSP)".



✂ **Mr.Ugendiran** of third year mechanical engineering has won national level bronze medal in SAMBO competition.

✂ Final year students of Mechanical engineering visited to **IGCAR kalpakkam** and **MAPS kalpakkam** for a day.

✂ Final year students have visited to **DANFOSS** through **ISHRAE chapter**.



✂ ISHRAE organized a national level quiz competition and our students **Mr. T.K. Rahul** and **Mr. R. Rajakumaran** have participated till Quarter Finals stage.

✂ Technical quiz competition has been conducted every year in MVIT and the declared winner will get cash rewards

✂ Value added Courses conducted for the Second year Third year and Final year students. For Second year CAD software and Solidworks for final and third year students was conducted.



PLACEMENT DETAILS

S.NO	NAME OF THE STUDENT	DEPARTMEN T	SEC	PLACED COMPANIES				
1	AGILAN GOVINDARAJ	MECH	A	TCS - NINJA				
2	DILEEP ANTHUVANANTONIERAJ	MECH	A	TCS - NINJA				
3	HARIHARAN K	MECH	A	HYOSEONG	DOLMATIC			
4	JAMAAL SHEREIF	MECH	A	MILEKAL				
5	KANAGASABAPATHY@MANIKANDAN.R	MECH	A	JUST DIAL				
6	KARTHIKEYAN.R	MECH	A	HYOSEONG				
7	MARTIN AROQUIADASSE	MECH	A	TCS - NINJA				
8	NAGARAJ	MECH	A	KOTAK				
9	NARESH S	MECH	A	IDBI	KOTAK	EXIDE LIFE	FACE	AXIS GLOBAL
10	PRAVEENKUMAR	MECH	A	HYOSEONG				
11	PRITHIVIRAJ R	MECH	A	IDBI				
12	RAJ KUMARAN	MECH	A	BYJU'S	EXIDE LIFE	KOTAK		
13	SEVVIYAN S	MECH	A	IDBI				
14	SURIYA K	MECH	A	HYOSEONG				
15	VENKATABOOPATHY.M	MECH	A	MILEKAL	FACE			
16	VIGNESH R	MECH	A	EXIDE LIFE				
17	VIGNESHKUMAR	MECH	A	WIPRO	MILEKAL			
18	YOGESH K	MECH	A	IDBI	DOLMATIC			
19	AMUDHASUDHAN	MECH	B	MILEKAL				
20	ARAVIND A R	MECH	B	MILEKAL	IDBI	EXIDE LIFE	FACE	
21	ARUNACHALAM AMBALAVANAN	MECH	B	TCS - NINJA	MILEKAL			
22	BALAMURUGAN P	MECH	B	CTS	EXIDE LIFE			
23	BALAMURUGAN S	MECH	B	HYOSEONG				
24	KATHIRAVAN	MECH	B	HYOSEONG				
25	RAJESH.I	MECH	B	INTEGRA				
26	SAKTHIVEL.C	MECH	B	HYOSEONG				
27	SAKTHIVEL.D	MECH	B	HYOSEONG				
28	SHYAM PRAKASH	MECH	B	HYOSEONG				
29	VIJAY.P	MECH	B	HYOSEONG				
30	VIMALRAJ	MECH	B	HYOSEONG				
31	ANAND.M	MECH	B	AXIS GLOBAL				
32	DEVANATHAN.B	MECH	B	AXIS GLOBAL				
33	SAKTHIVEL	MECH	A	AXIS GLOBAL				
34	JAYAKUMAR.S	MECH	A	AXIS GLOBAL	DOLMATIC			
35	PRADHEEP ANAND	MECH	A	DOLMATIC				
36	TAMILSELVAN.S	MECH	B	DOLMATIC				
37	KANAKASABAPATHY.R	MECH	A	DOLMATIC				
38	VELMURUGAN.V	MECH	B	DOLMATIC				
39	T.VINODH	MECH	A	DOLMATIC				
40	M.KARTHIK	MECH	B	DOLAMTIC				
41	K.KUMARASEAN	MECH	B	DOLMATIC				
42	R.ARUN KUMAR	MECH	A	DOLMATIC				
43	A.GOWTHAMAN	MECH	A	DOLMATIC				
44	V.NARESH	MECH	A	DOLMATIC				
45	S.MANIKANDAN	MECH	A	DOLMATIC				
46	D.ARULKUMAR	MECH	B	DOLMATIC				

COMPANY PROJECTS

PROJECT TITLE	COMPANY
SUGGESTION TO INCREASE THE LIFE TIME OF TURN OR TWIST HOIST WIRE ROPE IN CHASSIS TURN OVER STAGE	
ANALYSIS & PROCESS MAPPING FOR FITMENT OF FOOT BRAKE VALVES TO VISUALLY AID ASSEMBLY PROCESS	
OPTIMIZATION OF DRIVE ASSEMBLY USING DOE TOOL	
DESIGN AND FABRICATION OF CYCLONE SEPARATOR TO REDUCE THE WASTAGE OF ELECTROSTATIC POWDER IN ARMATURE COATING PROCESS	
AUTOMATIC SCREWING UP OF A HEAVY WEIGHT DIE IN AN INJECTION MOLDING MACHINE	
IMPLEMENTATION OF CUT OPERATION BY RADIAL WEAR BY MODIFYING CENTER CUTTING MACHINE	
THE CAUSE OF CRUDE OIL PIPELINE LEAKAGE, SPILLAGE, DAMAGE AND MAINTAINANCE	
DESIGN OF AUTOMATIC YOKE MAGNET ASSEMBLY	
SEMIAUTOMATION OF CORRUGATED BOX MANUFACTURING COMPANY	
ELEMENATION OF DEPTH UNDER SIZE DEFECTS IN SOCKET SCREW	
TROUBLE SHOOTING AND REDUCING THE DEFECTS IN PET PREFORM	
IMPLEMENTATION OF AUTOMATION IN MATERIAL HANDLING EQUIPMENTS	
FEASIBILITY OF IMPLEMENTING IOT IN MANUFACTURING AND DESIGN OF INSERT WITH EFFECTIVE CHIP BRAKER	
PRODUCTIVITY IMPROVEMENT AND COLOR MISMATCHING	

IMPROVEMENT **Industrial visits**

S.No	Batch	Year/Sem	Duration	Date	Name of the Industry
1.	2016-2020	III/V	1 day	22-06-18, 23-06-18	Southern Alloys Foundry Ltd, Chennai
2.	2016-2020	III/V	1 day	07-07-18	Mitsubishi Heavy Industries India Precision Tools, Ranipet
3.	2017-2021	II/III	1 day	06-07-18, 07-07-18	UCAL Polymer, Puducherry
4.	2015-2019	IV/VII	1 day	04-08-18	GARC
5.	2015-2019	IV/VII	1 day	06-08-18 07-08-18	TNSTC
6.	2016-2020	III/VI	1 day	18-01-19 19-01-19	LUCAS TVS
7.	2017-2021	II/IV	1 day	18-01-19 19-01-19	SOUTHERN ALLOYS
8.	2016-2020	III/VI	1 day	25-01-19	SUPER AUTO FORGE
9.	2017-2021	II/IV	1 day	13-02-19	NILKAMAL
10.	2015-2019	IV/VIII	1 day	11-01-19	IGCAR
11.	2017-2021	II/IV	1 day	02-03-19	ACCL

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