

ME X PRESS



Attitude takes you to Altitude

A Half-Yearly Newsletter from Department of Mechanical Engineering
Dr. M.G.R. EDUCATIONAL AND RESEARCH INSTITUTE,
Maduravoyal, Chennai-600 095.

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Editorial Board:

Department of Mechanical
Engineering



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Dean and Addl. Dean (E & T)

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HOD (Department of Mechanical
Engineering)

Technical Board:

Department Faculty

Message

*The first three issues of the news letter **MeXpress** for the years 2018 & 2019 published so far enlightens the readers of the main activities of Mechanical Department during these periods. I hope the subsequent issues of this news letter will be on the same lines like the previous three issues with embellishments as deemed necessary I congratulate Mechanical engineering department for publishing this newsletter.*

A. C. S. Arunkumar,
President,
Dr. M.G. R. Educational and Research Institute,
Chennai-600 095

Editor's Desk

Dear Readers,

*We are very happy to continue the newsletter at half-yearly interval named **MeXpress** of our Department. We thank our beloved chairman **Dr. A. C. Shanmugam** for his constant encouragement and support in launching this maiden venture. The newsletter is a brainchild of our President, who is keen in developing our Institute as a leading technical university. Your suggestions and criticisms are most welcome for embellishing this newsletter.*

"Happiness is a Habit"

Technical Events Organized for Students

Sl. No.	Topic	Date	Resource Person
1	Additive Manufacturing (3 D Printing)	30/09/19	Mr. S.Sekar Chief Executive Officer "RVJ Techno Service"
2	Non Conventional Source of Energy	18/9/19	Dr. P.Ravichandra Ganesh, MGRE& RI / ME
3	Source Of Energy	17/09/19	Mr. Ashok Kumar, MGRE& RI / ME
4	The New Dynamics	17/09/19	Mr. Naveen Dubey Life Strategist, Educator & Youth Mentor CEO & Founder Performance Training Company
5	Materials And Their Structures	18/09/19	Dr. M.Chandran, MGRE& RI / ME
6	Contemporary Management Styles	20/09/19	Mr. Asogan Professor Anna University
7.	Certificate Training Programme on Solid Works Software	16/09/19 to 27/09/19	Mr. S. Kalaiyaran Developer In CADD/CAM Solutions



Additive Manufacturing (3 D Printing)



Non Conventional Source Of Energy



Source of Energy



The New Dynamics



Materials and their Structures



Contemporary Management Styles



Training on Solid Works Software

1. Webinar on Geometric Dimensioning and Tolerance (GD&T) on 14-09-19 by Prof. James Thornburgh Devry University, Australia.
2. A Two Days Technical Symposium “YANTRAM 19” on “Disruptive Technologies” on 16/10/19 & 17/10/19



WEBINAR



YANTRAM '19

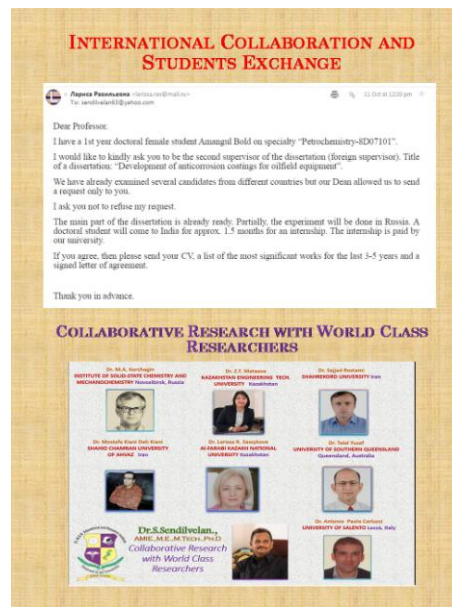
IIT PALS EVENTS

Sl. No.	EVENT	DATE	Resource Person
1	Industry Academia	06/07/19	Dr. Jayaseelan, MGRE&RI, ME
2	PALS Web Launch	09/07/19	Dr. Anuradha Shankar, IIT PALS
3	Online Quiz	12/07/19	Mr. Andrew Nallayan, MGRE&RI, ME
4	Analyze-Campus Event	23/07/19	Dr. Anuradha Shankar, IIT PALS
5	Tinkathon workshop	25/07/19	Mr. Krishnakumar, IIT PALS
6	Acquire-Campus Event	30/07/19	Ms. Jeyapriyadevi, MD, Kreative Learning.
7	Innowah web launch	31/07/19	Mr. Krishnamoorthy Rao, IIT PALS
8	Aspire-Campus event	06/08/19	Mr. Dr. Vallabha Deevi, Tiger Analytics
9	Aspire- Campus event	07/08/19	Mr. S. Krishnakumar, Fr. Senior VP, Lucas TVS.
10	Acquire- Campus event	08/08/19	Mr. Muralisundaram
11	Analyze- Campus event	14/08/19	Ms. Anuradha Shankar, IIT PALS
12	T2P Lecture	19/08/19	Mr. Arun Narasimhan, IIT, Madras
13	Analyze- Campus event	28/08/19	Mr. Krishnakumar, IIT PALS
14	Innowah workshop	05/09/19	Mr. Krishnamoorthy Rao, IIT PALS
15	Aspire- Campus event	10/09/19	1. Mr. Vijay Karthik Kumbeswaran, CEO, Concinate Partners. 2. Dr. Indumathi. M. Nambi, Professor, IITM, Chennai.
16	T2P Lecture	12/09/19	Prof. C.S. Shankar Ram, Professor, Department of Engineering Design, IITM, Chennai.
17	IITM Research Park Visit.	21/09/19	-----
18	Innowah project uploading	25/10/19	Mr. Andrew Nallayan, MGRE&RI, ME



IIT Pals Events

INTERNATIONAL RESEARCH COLLABORATION



STAFF ACHIEVEMENTS

Funded Project

Feasibility Study & Development of a Self- Sustainable Dual Renewable Energy Harvesting System for Unmanned / Autonomous Ocean Surface Vehicle

Funded by: NSTL, Vishakhapatnam

Fund Sanctioned: 9.5 Lakh

PI : Mr.Sa.K. Vishnoo Prathap

Co-PI: Mr.D. Pandurengan



Dr. K. R. VIJAYAKUMAR
Professor
FUNDED PROJECT PROPOSAL

A Funded Project Proposal titled “**NUTRI FOOD DESIGN AND DEVELOPMENT CENTER**” has been submitted to Social Innovation programme for Products: Affordable & Relevant to Societal Health (SPARSH) on 15/08/2019 to research and development valued Rs.88 Lakhs.

STUDENTS ACHIEVEMENTS:



Mr. Logeshwaran 3rd year Student

SMART INDIA HACKATHON-2019
(Conducted by MHRD-AICTE)

The smart India hackathon is an initiative of govt of India. To encourage students to solve problems existing in the present world. Here the space is provided for students to convert their theoretical knowledge into practical solutions. The problem statement we choose is **ZERO WASTAGE RO WATER PURIFIER**; this problem statement was given by ROBERT BOSCH business solutions. Interactions were made with experts of ROBERT BOSCH and other experts from forge Coimbatore. We were a team of 6 from DR.M.G.R EDUCATIONAL AND RESEARCH INSTITUTE. And the solution provided was based on the vacuum distillation of the discharged waste water.



Interaction With AICTE Chairman Mr. Jaffar Expert and Jury From Robert Bosch



The Team with our university President

HACKWARE 2019-SCHNEIDER ELECTRIC

Hackware is an open innovation challenge for all graduates, students, startups. It is based on 6 challenges for Improvised grid system, Energy management, high speed battery charging system. The team of 4 chose the statement from High speed Battery charging system using porous evaporative cooling systems. The idea was initially proposed and a POC was submitted in the next stage and The team got selected for the finals. The finals took place from 18-21st September.



STUDENTS INDUSTRIAL TRAINING:

Sl.No.	Year	Program Name	ASSOCIATED INDUSTRY/INSTITUTE	No. of students attended
1	2019-20	Industrial training (2 to 4 weeks)	AIEMA (Group of companies)	09
2	2019-20	Industrial training (one month)	Rane Madras Ltd	5
3	2019-20	Industrial training (2 weeks)	NSTI (ATI)	63
4	2019-20	Industrial training(one month)	Ashok Leyland	01
5	2019-20	Industrial training (20days)	TVS Sundaram Motors	01
6.	2019-20	Industrial training (15days)	NELCAST Ltd.	03



NSK PRESS TOOLS



ARIHANTH FORGINGS



NSTI (SOLID WORKS)

PUBLICATIONS BY FACULTY:

1. Sendilvelan, S., Sassykova, "Performance and combustion analysis of a PPCCI engine with diesel as a premixed fuel to reduce soot emission". Lecture Notes in Mechanical Engineering.
2. *Sendilvelan, S., Sassykova, Norms of emissions of harmful substances generated from vehicles in the different countries of the world,*. News of the National Academy of Sciences of the Republic of Kazakhstan, Series of Geology and Technical Sciences."
3. Sendilvelan, S., Sassykova, Preparation and test of catalysts deposited on metal blocks used in synthesis of dimethyl and diisopropyl ethers. Journal of Chemical Technology and Metallurgy
4. Sendilvelan, S., Sassykova, L. Chemically Heated Catalytic converter design options and performance using heated metal oxide," Journal of Chemical Technology and Metallurgy".
5. Sendilvelan, S., Sassykova, Thermo-catalytic processing of polymer waste over catalysts on the basis of natural zeolite from the tayzhuzgen field (Kazakhstan) modified by molybdenum. Rasayan Journal of Chemistry.
6. Sendilvelan, S., Sassykova Hydrogenation of aromatic nitro-compounds of a different structure in a liquid phase," Journal of Chemical Technology and Metallurgy".
7. K Rajan, K. R. Senthil Kumar, Performance and emission characteristics of diesel engine using biodiesel with the effect of Dimethyl carbonate (DMC) fumigation. Taylor and Francis PP 1-13 <https://doi.org/10.1080/15567036.2019.1654565>.
8. K. Rajan, Ashok Kumar, Experimental Study of Diesel Engine using Cashew Nut Shell Oil (CNSO) with Varying
9. Injection Pressures, AIP Conference Proceedings 2039, 020058 (2019); doi: 10.1063/1.5079017 View online: <https://doi.org/10.1063/1.5079017>.
10. K. Rajan, Mohankumar, Heat Transfer and Friction Factor Characteristics of Heat Exchanger using Aluminium Oxide and Titanium Oxide. International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8 Issue-3, (September 2019), DOI: 10.35940/ijrte.C4804.098319.