

# MOMENTUM

DEPARTMENT OF MECHANICAL ENGINEERING  
MANGALAM COLLEGE OF ENGINEERING, ETTUMANOOR

JULY- DEC, 2021

## VISION

To be a center of excellence in Mechanical Engineering by creating innovative and socially responsible technocrats to meet the global challenges.

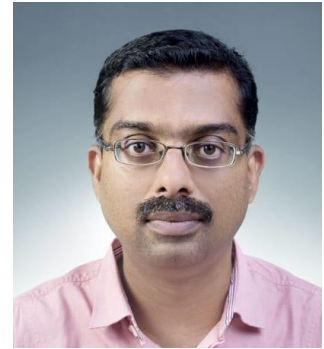
## MISSION

1. To provide qualitative technical knowledge in the domain of Mechanical Engineering to compete in the global scenario.
2. To nurture socially committed mechanical engineers through value based education.
3. To enhance the research ability of knowledge seekers for the changing needs of society.

## From HOD's Desk

Dear Colleagues & Students,

I am pleased to introduce this edition of our department's newsletter to all. It is my hope that this will serve as a platform for us to share updates, achievements, and news within our department.



As the head of the department, I am proud to say that our students and faculty have consistently excelled in research, innovation, and industry partnerships. This year, we have several exciting projects and initiatives underway.

I also want to take this opportunity to recognize the hard work and dedication of our faculty and staff, who continue to provide our students with a world-class education and support their professional development.

As we continue to navigate the challenges of the pandemic, I am confident that our department will remain resilient and continue to thrive. I look forward to working with all of you to continue pushing the boundaries of Mechanical Engineering and making a positive impact in our field.

Sincerely,

Dr. Pratheesh K

### ***Department Summary***

*The Mechanical Engineering department started in the year 2004, offers both undergraduate (B.Tech.) and postgraduate (M.Tech.) programmes. The annual intake of the B. Tech. programme is 90 students and that of the M. Tech. is 18. The department provides its students an environment that stimulates their intellectual growth and personality development. Infrastructure facilities are excellent with well-equipped labs, classrooms and libraries.*

## PROGRAM EDUCATIONAL OBJECTIVES

Domain knowledge: Graduates will be able to solve the contemporary issues and challenges in mechanical engineering by applying their strong base in Mathematics, Science and Engineering.

Lifelong learning: Graduates shall have a passion to engage in lifelong learning process through self study, continuing education and professional studies in engineering.

Creative skillset: Graduates will become an effective innovator, to address social, technical and business challenges by enhancing their technical competencies, communication skill and team spirit.

## PROGRAM SPECIFIC OBJECTIVES

PSO 1: Able to identify, formulate design and analyze the contemporary challenges and engineering problems in the realm of Design, Industrial and Thermal sciences, utilizing latest technology.

PSO 2: Able to provide solutions by incorporating innovative ideas on product design and development to conquer the challenges in core mechanical sectors, business and other related fields.

## DEPARTMENT ACTIVITIES

- International Conference on Advances in Mechanical Engineering: Transcending boundaries was conducted on 22nd 23rd July, 2021
- Orientation for first year Started on 29/09/2021 with a session “Kickstart your Career”, Hema Gopalakrishnan, Founder & CEO, Insight For Innovation.
- Orientation for first year second session on topic “Humanising Engineering” by Rev. Dr. Mothy Varkey B.Sc. B.D. M.Th. D.Th., Professor, Marthoma Theological Seminary, Kottayam on 1/10/2021.
- Orientation for first year third session on topic ”An Introduction to Automotive Industry” by Mr.Ganesh Shankaran,Chief Programme Engineer & General Manager Product Development, Ford Motors, Chennai Plant on 6/10/2021.
- Orientation for first year fourth session on topic “The Science and Scope of Mechanical Engineering” Dr. Libin P Oomen, Research Scholar, NITK Surathkal on 8/10/2021.
- Orientation for first year fifth session on topic “Renewable Energy Sources: Energy Trends Shaping the Future” Sumit Pandey, Senior Engineer, L&T, Haryana on 13/10/2021.
- MOU signed with KSE limited Vedagiri to improve the industry interaction of the students
- An internship by CIPET Palakkad on Topic “Injection moulding theory, parameter setting and trouble shooting” from 21-12-2021
- A webinar on “ Wildlife Conservation in Kerala Scenario” in association with Kerala Forest Department, Social Forestry Division, Kottayam as a part of Wildlife Week Celebration 2021 by Dr. Gigi K Joseph, Assistant Professor, Department of Zoology,Nirmala College Muvattupuzha, on 5/10/2021
- A webinar on “ Introduction To Simplified Comparative Analysis Tool In Energy Engineering” by Dr. Arun B S,Postdoc Energy Researcher, Central Institute of Fisheries, Kochi, on 04-12-2021
- A webinar on “ Natural Refrigerants : Future Of Clean Cooling” by Dr. Vaishak S, INDEE+ Postdoc Fellow,BITS Pilani, on 31-12-2022.



## EMINENT 2K21 Academic Excellence Awards



NAKUL SURESH  
CGPA: 9.3



SREELEKSHMI S  
CGPA:9.1



JOSEPH BABU  
CGPA:9.00



NIRMAL P SABU  
CGPA: 8.99



JUSTIN K KURIAN  
CGPA:8.93



TONY SHAJI  
CGPA: 8.86



BERIN M BIJU  
CGPA: 8.81



DEVAN SARATH  
CGPA:8.76



ALBIN JOHN  
CGPA:8.58



ASWIN ROSE THOMAS  
CGPA:8.55



JOEL MANI  
CGPA:8.51



FAMY ANTONY  
CGPA:8.50



JITHIN G NAIR  
CGPA:8.46

## Students' Corner

- Ceril M Mathew attended a webinar on Robotics and Mathematics on 5/8/2021.
- Bibin Varghese has completed course on the Fundamentals of digital marketing conducted by google
- Ajay Das Manikunnel has participated in workshop on CADD softwares conducted by CADD centre.
- Amal Jagadeesh, Ashik Suresh, Aswin A, has undergone Internship on ECU Tuning hosted by TECHMAGI
- Anandu Sajeev, Athul V Prasannan, Amal E.S, Ajith Joy, Abin Joy, Adithya Shine, Aravind Shine, Michael Prakash has undergone internship on IC Engines hosted by TECHMAGI
- Alex Mathew George has completed the Voice of Customer (VoC) Training held on 2021 December as a part of the Young Innovators Programme (YIP) 2021 conducted by the Kerala Development and Innovation Strategic Council (K-DISC).
- U Anantha Krishna, Delphi Joseph, Berin M Biju, Arjun B Lal, Aswin Saju, Abraham Joseph, Akhil P, Aswin Rose, Justin Babichen, Aswin Abraham, Jerin Justin, Sherinmon MS, Anadukrishna K has completed the Voice of Customer (VoC) Training held on 2021 December as a part of the Young Innovators Programme (YIP) 2021 conducted by the Kerala Development and Innovation Strategic Council (K-DISC).
- U Anantha Krishna, Ambady S, Abhiram KK, Ebin V Edison has completed 6 weeks online training on Autocad conducted by Internshala.
- Arun Abraham has undergone Internship on ECU Tuning hosted by TECHMAGI
- Ebin V Edison, Arun Omankuttan has completed one week training on Telecom & Optical fiber technologies by BSNL

# EMINENT 2K21 Academic Excellence Awards



BIBIN BABU  
CGPA:8.44



DICKSON  
CGPA:8.3



SONY ANTONY  
CGPA:8.29



MANEESH S  
CGPA:8.24



DELPHY JOSEPH  
CGPA: 8.19



AKSHAY S  
CGPA:8.24



ARUN V MADHU  
CGPA:8.11



CIO KURIAN ABRAHAM  
CGPA:8.16



JEBIN P D  
CGPA:8.09



ROBERT MATHEW  
CGPA:8.07



SUBIN K JOHN  
CGPA:8.06



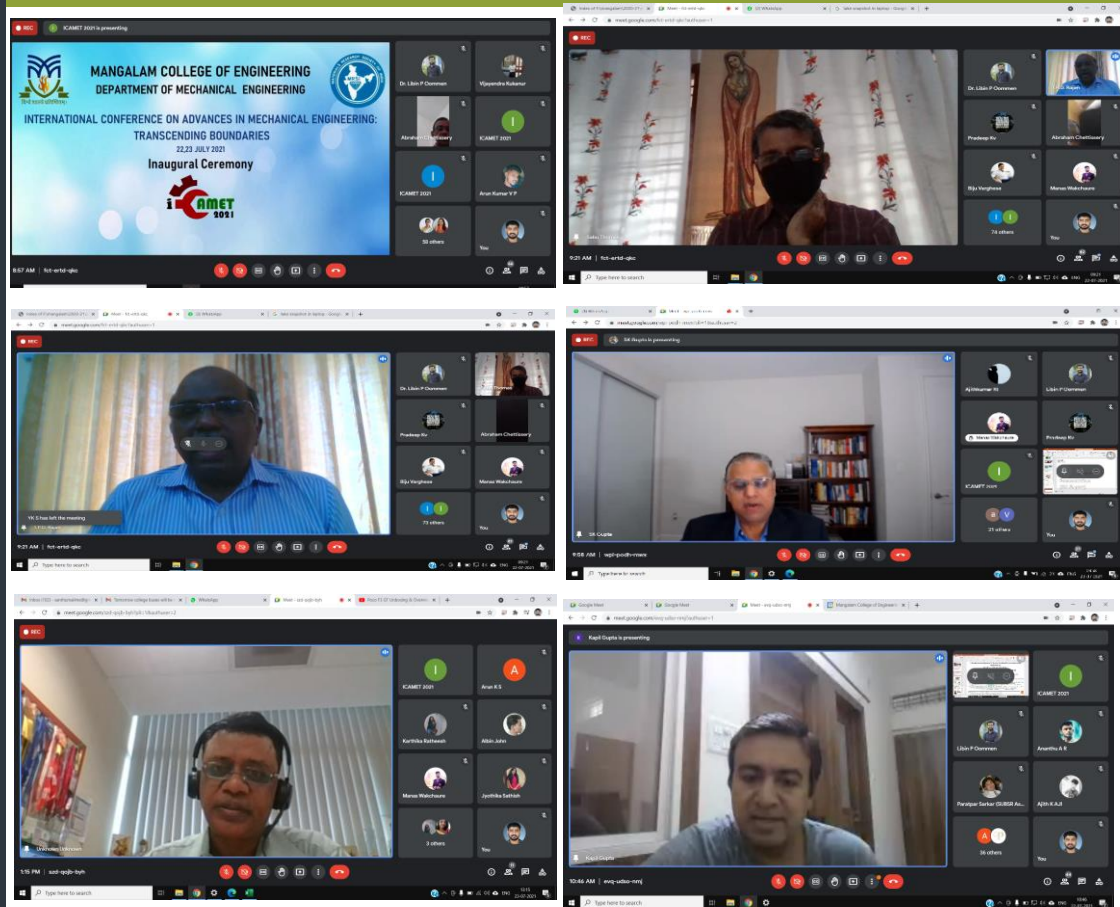
SAJIN K JOHN  
CGPA:8.04

- Sudev K Sukumar, Vidhu Krishnan U has participated in workshop on CADD softwares conducted by CADD centre.
- Mr. Govind S Nair has completed internship at MIDAS
- GowriSankar A, Rahul C Babu has undergone Intership on ECU Tuning hosted by TECHMAGI
- Nevin Phiip has completed Google Ads display Certification course
- Nevin Philip has completed course on the Fundamentals of digital marketing conducted by google
- Rahul R Nair has participated in workshop on the science of acoustics and the basic exhaust system conducted by skill lync.
- Tony Shaji has completed MOOC course on Work system Design with a consolidated score of 82% by NPTEL
- Nihas Nizar, Sanju Jacob Varghese, Sarath Babu,Sreerag M, Tony Shaji,Tony Sunil has completed the Voice of Customer (VoC) Training held on 2021 December as a part of the Young Innovators Programme (YIP) 2021 conducted by the Kerala Development and Innovation Strategic Council (K-DISC).



**Dr. A. V Thomas, Director, Mangalam Group of Institutions and Mr. Vinod Kurian, Works Manager, KSE signed the MoU.**

# ICAMET 21



**The conference was conducted online on 22nd 23rd July, 2021.**

### **The committee**

The Principal: Conference Chair

Dr. K. Pratheesh (HOD): Organising Secretary

Dr. Praveen Wilson: Chief coordinator

Dr. Ajin C Sajeevan: Coordinator

Dr. Libin P Oommen: Coordinator

Dr. Vaishak S: Coordinator

Mr. Santhu Varghese Thomas: Coordinator

### **Publication**

- Materials today Proceedings (Elsevier) and AIP

### **Editors**

- Dr. K. Prabhakaran (Professor & Head, Department of Chemistry, IIST Thiruvananthapuram)
- Dr. Shijo Thomas (Associate Professor, SMSE, NIT Calicut)
- Dr. K Pratheesh (Professor & Head, Department of ME, MLMCE)

**A total of 150 papers were received out of which 60 were short listed for publication in the two proceedings.**

Keynote lectures	Date	Topic
Dr. Kapil Gupta (University of Johannesburg)	22/07/2021	An insight about sustainable manufacturing with special focus on green machining
Prof Dr. Satyandra Gupta (University of Southern California)	23/07/2021	Realising next generation additive manufacturing through use of advanced robotics
Dr. Manoj Gupta (National University Singapore)	23/07/2021	Light weight magical magnesium for emerging engineering and biomedical applications

Inaugural address     **Dr. Sabu Thomas**  
Vice Chancellor, MG University

Felicitation           **Dr. T. P. D Rajan**  
Senior Principal Scientist .CSIR- NIIST,  
Thiruvananthapuram

Papers were presented by 73 researchers from around the world in a time bound manner.

### **Best Papers**

Ms. Ada Steponaviciute (University of Litwania)

Mr. Atul Vijay (SVNIT Surat).

Dr. V Anantachar (Navodaya Institute of Technology Raichur)

Dr. Linsha V (IIST Thiruvananthapuram)

### **Valedictory ceremony**

Prof. Kuruvilla Joseph (Outstanding Professor & Dean, SW & SO, IIST) felicitated the gathering and gave his insights on importance of participation and presenting research in scientific forums.

## FACULTY CORNER

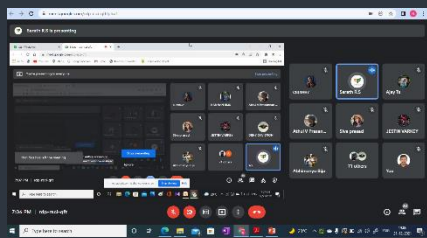
- Mr. Aneesh K S has attended 5 days FDP on Transforming Supply Chains with Analytics by Indian Institute of Technology (BHU) Varanasi.
- Mr. Aneesh K S has attended 5 days FDP on Machine Learning Applications in Mechanical Engineering by Acropolis Institute of Technology and Research.
- Mr. Amal R has attended 5 days FDP on Next Generation Adaptive Manufacturing System by Marian Engineering College, Trivandrum.
- Mr. Rajeeve K Mohan has attended 6 days AICTE approved Refresher programme on "Outcome based education in professional institutions" by AICTE-ISTE and St. Josephs college of engineering Palai.
- Dr. Rabi.J has attended 6 days FDP on Additive Manufacturing Processes and its Applications by Sri Mankula Vinayagar Engg College, Pondicherry.
- Mr. Albert Mathew has attended 5 days FDP on Next Generation Adaptive Manufacturing System by Marian Engineering College, Trivandrum.
- Mr. Tony Mathew has attended 6 days AICTE approved Refresher programme on "Outcome based education in professional institutions" by AICTE-ISTE and St. Josephs college of engineering Palai.
- Mr. Santhu Varghese Thomas has attended 5 days FDP on Next Generation Adaptive Manufacturing System by Marian Engineering College, Trivandrum.
- Mr. Santhu Varghese Thomas has attended 3 days FDP on Nanofluidics: Theory, Experimentation, Computation and Applications by Saintgits Colleg of Engineering
- Mr. Santhu Varghese Thomas has attended 5 days FDP on Supply chain Modelling and Logistics Management by Viswajyothi College of Engineering.
- Mr. Benphil C Mathew filed a patent on Self –Assistive Transfer Device
- Mr. Benphil C Mathew filed a patent on Earth Air Heat Tunnel Transformer.



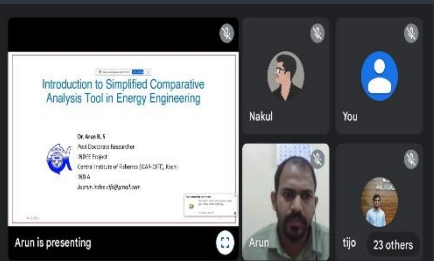
Natural Refrigerants : Future Of Clean Cooling



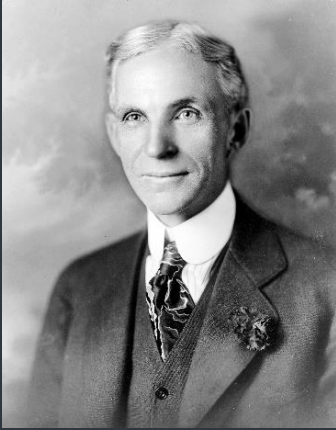
Wildlife Conservation In Kerala Scenario



Injection Moulding Theory, Parameter Setting And Trouble Shooting



Introduction To Simplified Comparative Analysis Tool In Energy Engineering



## Henry Ford

Born: July 30, 1863

Died: April 7, 1947

- Founder of Ford Motor Company
- Invented the Model T car
- Introduced the moving assembly line method of production into the car industry
- Popularized the 40-hour work week

## Editorial

Dr. Pratheesh K  
 Mr. Rajeeve K Mohan  
 Mr. Santhu Varghese  
 Jayashanker Pillai  
 (Assistant Editor)  
 Nakul Suresh  
 Varsha Lal  
 Devan Sarath

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 mech\_mlmce

# Upcoming Events

**Inauguration of The Institution of Engineers (India) Students' chapter**

Technical Talk on **Engineering Education: Opportunities & Challenges in Covid-19 Era**

24/01/2022 Monday  
10.00 AM

**Inauguration**  
 Mr. P A Salahudheen FIE  
 Chairman  
 IEI Kochi

**Main Talk**  
 Mr. V Vijayachandran Nair MIE  
 National Council Member  
 IEI

**Department of Mechanical Engineering**  
**Mangalam College of Engineering**  
**Ettumanoor**

## Mechanical Engineering Technical Association of Legends (METALS) Office Bearers(2021-22)

**PRESIDENT**  
**Akhil Premkumar**

**VICE PRESIDENT**  
**Adhithyan H**

**SECRETARY**  
**Sanju Jacob Varghese**

**JOINT SECRETARY**  
**Parvathy Parthasarathy**

**TREASURER**  
**Mahesh Kumar R**