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Mechanical Engineering Department's Official Newsletter



KUMARAGURU COLLEGE OF TECHNOLOGY

Department of Mechanical Engineering

Mechanical Engineering Association

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EDITORS PORTFOLIO

From the Editors...

Dear Readers,

It is with pride and renewed enthusiasm that we present this month's departmental newsletter, highlighting the academic, research, and professional progress of our Mechanical Engineering community. This edition reflects our continued focus on excellence through industry engagement, research contributions, and continuous learning.

Our faculty members actively strengthened industry linkages through collaborative meetings with international institutions, MSMEs, and industrial partners, enabling research collaborations, curriculum development, and internship opportunities. Their scholarly efforts resulted in quality publications in reputed journals, contributing to advancements in manufacturing, materials, and sustainable engineering practices.

The department also organized enriching academic and professional programs, including expert industry sessions and student-centered workshops that enhanced technical knowledge and personal development. Faculty upskilling remained a key priority through focused training programs and certifications aligned with Industry 4.0 requirements.

Equally encouraging are the achievements of our students, particularly the strong placement outcomes of the graduating batch across leading core and IT organizations. These accomplishments reflect the collective efforts of students and faculty and reaffirm the department's commitment to holistic growth and excellence.

Warm regards,
Editors





DEPARTMENTAL ACTIVITIES

Industry Linkage



A collaborative meeting was held with **Dr. Prabhu Umashanker Arumugam** from Louisiana Tech University, USA on 23rd December 2025, focusing on research partnerships and COIL (Collaborative Online International Learning) in areas such as Materials Science and CFD. The faculty co-ordinator for this meeting was **Mr. K. Manikanda Prasath,** Assistant Professor - II.

Faculty members, **Dr. M. Balaji,** Associate Professor, and **Dr. K. K. Arun,** Assistant Professor – III held a strategic discussion with Effica Automation on 30th December 2025 regarding the proposed M.E. Industrial Automation & Robotics Program, covering curriculum design and internship opportunities.





A visit to Primes Tech Engineering Solutions on 6th December 2025 provided faculty with insights into MSME challenges and opportunities, fostering stronger academia-industry linkages. The visit was made by **Mr. K. Manikanda Prasath,** Assistant Professor - II, **Dr. S. Thirumurugaveerakumar,** Associate Professor, and **Dr. AP Arun,** Assistant Professor – III.







Paper Publication

A research paper titled **"Influence of mixture on Argon/Helium/CO2 gases on the properties of MIG welding for SS304 and EN8 steel joint"** was published in Springer Nature. In this study, **Dr. V. R. Muruganantham,** Associate Professor, provides insights into shielding gas optimization for improved weld bead geometry.



Another study on **"Investigating the Impact of BMD Process Variables on the Mechanical Properties of 316L Alloy"** was conducted by Dr. **Senthil Kumar K M,** Associate Professor, **Dr. Balaji. S,** Assistant Professor – III, **Dr. Muthukumaran. V**, Professor, exploring Bound Metal Deposition parameters and contributing to advancements in additive manufacturing techniques.









A research study titled **"Optimization of Fused Deposition Modeling Parameters to Fabricate Morphogenesis Lightweight Structures with High Tensile and Compressive Strength"** was published in Proc IMechE Part E. The work focuses on optimizing 3D-printed lightweight structures using PSO and RSM techniques and was carried out by **Dr. V. Muthukumaran**, Professor.

A paper on **"Experiment analysis for efficient virgin coconut oil extraction technique for small scale industries"** was published in M.S. Ramaiah Management Review by **Dr. B. N. Sreeharan**, Assistant Professor – III, comparing extraction methods to enhance oil quality and yield.



Programmes Organised

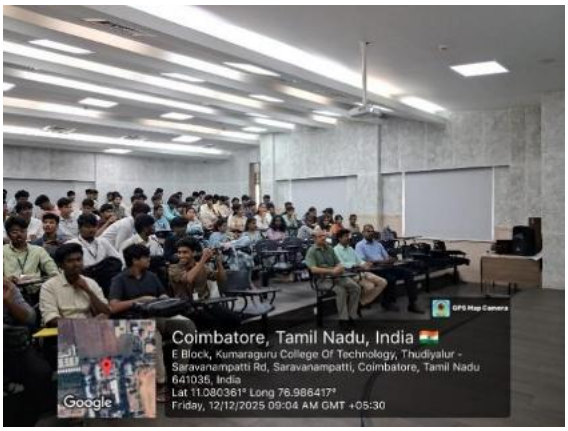
An industry session on “A Step Towards Self-Realization” was conducted on 4th December 2025 for first-year students, led by **Mr. Karthik R** a career guidance consultant. The interactive workshop covered goal setting, stress management, and career planning, receiving highly positive feedback from participants. The session was coordinated by **Dr. B. N. Sreeharan,** Assistant Professor – III.





On 12th December 2025, **Dr. P. Mohan,** Director of Operations at M/s. Levigate Alloys Private Limited, Coimbatore, delivered an expert session on Powder Metallurgy for Mechanical and Automobile Engineering students, enriching their understanding of manufacturing processes and industrial applications. The guest lecture was coordinated by **Dr. M. A. Vinayagamoorthi,** Assistant Professor – III and **Dr. B. N. Sreeharan,** Assistant Professor – III.





A three-day Faculty Empowerment Program on Data Science Applications in Mechanical Engineering was successfully conducted, focusing on the integration of data analytics with core mechanical engineering domains. The program provided faculty with a strong foundation in data science concepts and hands-on training using tools such as SQL and Power BI. Participants explored real-world applications including predictive maintenance, quality control, vibration analysis, and design optimization through practical case studies. The program effectively empowered faculty to incorporate data-driven approaches into teaching, research, and Industry 4.0–oriented interdisciplinary projects. This program was co-ordinated by **Mr. V. R. Navaneeth**, Assistant Professor – II, and **Dr. K. K. Arun,** Assistant Professor – III.





Faculty Upskilling



Dr. M. A. Vinayagamoorthi, Assistant Professor – III, actively participated in a Faculty Development Program on Industrial Plant Automation using Siemens Plant Simulation software, organized in association with TANSAM from 10th–14th November 2025.

Dr. B. N. Sreeharan, Assistant Professor – III, earned a SAS badge in Exploratory Data Analysis and completed the SKF Bearing Basics course in December 2025, highlighting ongoing faculty commitment to professional development.



Book Publication



Dr. V. Manivelmuralidaran, Assistant Professor – III, successfully authored a book titled the Project Management: Project Planning and Management certification program, published by Alpha international Publication (AIP).

Student Placement Achievements (2025–26 Batch)

The Department of Mechanical Engineering celebrates a successful placement season for the 2025–26 batch as of December 2025. Our students have secured positions in prestigious organizations with competitive packages.

List of Placed Students:

Undergraduate (B.E.):

S. No.	Roll No.	Candidate Full Name	Salary (LPA)
1	22BME001	Abirami M	8
2	22BME004	Ajmal Batcha S	4
3	22BME007	Aldrin R J	4.25
4	22BME017	Balaji M	4
5	22BME020	Dhanush S	3.5
6	22BME021	Dhanuskumar S	3.5
7	22BME024	Dharinendra B	4.25
8	22BME025	Fathima Nasiha S	4
9	22BME030	Gopala Krishnan M	9
10	22BME033	Hariharan P	7
12	22BME039	Infant Maria Rosario V	5.13
13	22BME040	Jai Harish D	8
14	22BME041	Jothisankar S K	6
15	22BME042	Kalanithi S	5.3
16	22BME044	Kamalikka V	6.3
17	22BME048	Kesavdarshan M	4
18	22BME055	Manikandan M	8
19	22BME057	Melavasal Pandian D	5.13
20	22BME059	Mithun T N	4.25
21	22BME060	Mohammed Salman R	16
22	22BME062	Mohana Sundaram M J	7
23	22BME068	Nisha M	5
24	22BME071	Paviezha M S	8
25	22BME077	Priyanka S	6
26	22BME078	Raghunandhan G	7
27	22BME083	Rithika S	8
28	22BME088	Sanjaykumar S	4
29	22BME089	Santhiya S	8
30	22BME093	Saransundar S	4
31	22BME094	Saravanan B	4.25

S. No.	Roll No.	Candidate Full Name	Salary (LPA)
32	22BME099	Shrikanth P	6
34	22BME102	Sivathiruthani S	5.3
35	22BME104	Sowbiraaj K M	4
36	22BME105	Sree Ram G	7
37	22BME115	Surya J	4
39	22BME117	Swetha S	7
40	22BME118	Tamilarasu K	5.3
41	22BME119	Thanush K	3.6
42	22BME120	Thiruvazhagi E	6.3
43	22BME123	Vigneshraja K S	5.13
44	22BME306	Baranitharan K	4.25
45	22BME307	Baskaran M	8
46	22BME316	Ratheesh P	5.13

Postgraduate (M. E. – Industrial Engineering):

S. No.	Roll No.	Candidate Full Name	Salary (LPA)
1	24MIE001	Deebak B G	5
2	24MIE005	Sivaramakrishnan K	5

Placements Highlights:

- Highest Package: 16 LPA
- Average Package: 5.9 LPA
- Strong representation in both core mechanical roles and IT/analytics positions

The department congratulates all placed students and extends gratitude to the recruiting companies and training & placement cell for their continued support.

Special congratulations to Mohammed Salman R for securing the highest package of 16 LPA!

SNAP SHOTS



Faculty Empowerment Program on Data Science Applications in Mechanical Engineering





Collaborative Meeting on Research and COIL with Louisiana Tech University, USA



Discussion panel at the Effica Automation, Coimbatore





Visit to MSME Unit, Primes Tech Engineering Solutions

Vision, Mission, POs, PSOs and PEOs

KUMARAGURU college of technology
COIMBATORE – 641 049

Institute Vision:

The vision of the college is to become a technical university of International Standards through continuous improvement.

Institute Mission:

Kumaraguru College of Technology (KCT) is committed to providing quality Education and Training in Engineering and Technology to prepare students for life and work equipping them to contribute to the technological, economic, and social development of India. The College pursues excellence in providing training to develop a sense of professional responsibility, social and cultural awareness and set students on the path to leadership.

Department of Mechanical Engineering

Department Vision*:

To achieve global recognition for the programs of the department by promoting innovation, sustainability, and leadership, contributing to the society.

Department Mission*:

1. To promote innovation in the Mechanical Engineering through curriculum, focusing on sustainability and ethical practices.

2. To create an active learning ecosystem for acquiring knowledge and skills in Mechanical Engineering.

3. To facilitate research in mechanical systems and sustainable technologies that have an impact on industry and society.

** Focused SDGs are: 4, 8, 9, 12, 13, 17*

B. E. MECHANICAL ENGINEERING

Program Educational Outcomes (PEO's):

PEO 1: Graduates to pursue careers in Mechanical engineering and allied fields.

PEO 2: Graduates to engage in the execution of multi-disciplinary engineering activities.

PEO 3: Graduates to pursue professional development programs in Mechanical Engineering Science and Management.

Program Outcomes (PO's):

1. Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. Problem Analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3. Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.

4. Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. Engineering Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

6. The Engineer and The World: Apply contextual knowledge to assess societal, health, safety, legal, cultural, and environmental issues, and demonstrate the knowledge of and need for sustainable development.

7. Ethics: Apply ethical principles and commit to professional ethics, responsibilities, and norms of engineering practice, including inclusive and diverse behavior.

8. Individual and Collaborative Teamwork: Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.

9. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, including writing reports, design documentation, making presentations, and giving/receiving clear instructions.

10. Project Management and Finance: Demonstrate knowledge and understanding of engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects in multidisciplinary environments.

11. Life-Long Learning: Recognize the need for and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change, including adaptability and tech awareness.

Program Specific Outcomes (PSO's):

1. Apply the fundamentals of science and mathematics to solve complex problems in the field of design and thermal sciences.

2. Apply the concepts of production planning and industrial engineering techniques in the field of manufacturing engineering.

M. E. INDUSTRIAL ENGINEERING

Program Educational Objectives (PEO's):

PEO 1: Graduates will be mid to higher level management / engineering professionals with responsibilities in engineering management, data analysis and business operations.

PEO 2: Graduates will be engineering professionals, and technology leaders who would manage such functions as plant engineering, production, supply chain and quality management.

PEO 3: Graduates would function as educators or researchers in academic institutions.

Program Outcomes (PO's):

PO1 : An ability to independently carry out research /investigation and development work to solve practical problems.

PO2 : An ability to write and present a substantial technical report/document.

PO3 : Students should be able to demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

PO4 : Apply knowledge and competencies in manufacturing, analytics, supply chain, quality and engineering management.

PO5 : Apply principles of industrial engineering to solve problems in industry.

PO6 : An ability to work as part of interdisciplinary teams, communicate effectively, model and design engineering systems optimally.