

2022 MECHVOICE NEWSLETTER JULY-DECEMBER



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hodme@kmeacollege.ac.in

Department of Mechanical Engineering



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Vision

The Mechanical Engineering Department strives to become a premier academic and research centre to mould competent and innovative mechanical engineers and dedicated to the betterment of deprived socio-economic sections of the society.

Mission

M1. To offer good quality education & research to create employable mechanical engineering professionals.

M2. To create a society of engineers who are conversant with modern technologies and their applications by emphasising the significance of higher education. M3. To create a society of engineers who values societal ethics through education gained.

M4. To create an ecosystem that encourages interdisciplinary research and entrepreneurship skills for transforming technical knowledge into socially relevant products and processes

HOD's Message

Department of Mechanical Engineering was established in 2010, and since then, it has been an integral element of KMEA Engineering College. The department provides a mechanical engineering undergraduate programme that is approved by APJ Abdul Kalam University. Yearly 90 students are admitted, and it has produced mechanical engineers of the highest calibre. Mechanical engineering is one of the oldest and most diverse engineering specialties .



Dr. Sajith T A



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Young, exceptional engineers who are academically excellent in both theory and practise are moulded by the department.

The department features well-equipped labs where the students get practical training. To mention a few, there are labs for machine tools, heat transfer, refrigeration and air conditioning, internal combustion engines, fluid mechanics and machinery, CAD/CAM, CNC machines, metrology, and others. Additionally, our division has a CNC turner facility centre that is permitted for Tuner Factory & Engineering's commercial manufacturing. Additionally, the department provides consulting in the area of CNC turning equipment.

The department and Universiti Teknologi MARA in Malaysia have signed a Memorandum of Understanding to facilitate student exchange programmes and academic and research interactions. In order to provide our students internship opportunities and industry-academic interaction, the department has also inked MOUs with Sunsenz Solar, Popular Automobiles, Poomkuddy Automobiles, Amy Jewellery and Designers, J and G Toolings Ltd, and Tritech Design Academy. We also collaborate with the State Resource Council (SRC) to provide our students value-added courses in MEP & QAQC.

Students and faculty are assisted in their research and projects by the departmental research centre. By taking part in research-focused programmes and quality improvement trainings, all faculties actively work to enhance their standards. The projects of our students demonstrate their technical quality and expertise, and they have won awards in contests held at the state level. Faculty members have publications in highly regarded international journals. The department has launched a new venture called GARAGE, which will serve as a platform for turning the concepts of our students into cutting-edge automobile learning in the present.

The department has an official student organisation called "ARME" that routinely organises co-curricular and extracurricular activities. Department participates actively in ISHRAE (professional body involved in air conditioning and refrigeration). The Department is a leader in the entrepreneurship and start-up industries. Our cell for ongoing education is fantastic. To improve the technical abilities of young people, the cell provides a CNC turner course through PMKVY and ASAP. These courses demonstrate the department's dedication to social issues.

The department routinely holds FDPs, workshops, seminars, and invited speakers. The Department's biannual newsletter, MECHVOICE, which highlights the department's accomplishments during the current semester, is published. The department is also a leader in extracurricular pursuits. The participation of the pupils in academic, co-curricular, and extracurricular activities is encouraged. Conferences, tech fests, and sports events all see enthusiastic participation from our students.



Racing vehicle fabrication



The vehicle fabrication workshop for college students typically involves a multi-day program that provides students with hands-on training and instruction on how to design and build a vehicle from scratch. During the workshop, students learn about various components and systems that go into a vehicle, such as an engine, transmission, suspension, and steering. They could also learn about the materials and tools used in the fabrication process, as well as the safety and regulations related to building and testing a vehicle. The workshop was structured as a team-based program, with each team working to design and build their vehicle. The teams did receive guidance and mentorship from experienced professionals, who did help them navigate the technical challenges of vehicle design and construction. Over the course of the 8-day workshop, students received

instruction on various fabrication techniques, such as welding, machining, and assembly.

Session on Prototype Validation



The session on "Innovation Prototype Validation" conducted by the Mechanical Engineering Department of KMEA Engineering College was a pivotal learning opportunity for students. It equipped them with practical knowledge and skills in the critical phase of validating innovative prototypes. This session emphasized the importance of rigorously testing and verifying new concepts and designs, ensuring their feasibility and functionality.



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By addressing the nuances of prototype validation, the department demonstrated its commitment to providing students with a holistic understanding of the innovation process, preparing them to be effective problem solvers and innovators in the field of mechanical engineering.

Industrial Visit



In Semester 2, a group of mechanical engineering students from KMEA Engineering College embarked on an enlightening industrial visit to the picturesque region of Munnar, where they explored the inner workings of a tea factory. This hands-on experience allowed them to witness the intricate processes involved in tea production, from harvesting and processing to packaging. The students were

captivated by the precision machinery and engineering principles at play in this industry, gaining valuable insights into the practical applications of their academic knowledge. The visit not only deepened their appreciation for the complexities of mechanical systems but also provided them with a unique perspective on the integration of technology in traditional practices. It was a memorable and enriching experience that broadened their horizons and encouraged their pursuit of excellence in the field of mechanical engineering.



In a remarkable endeavor, Semester 6 and Semester 8 students of the Mechanical Engineering program at KMEA Engineering College embarked on two insightful industrial visits. Semester 6 students explored the charming hills of Kodaikanal, delving into the intricacies of a local industry. Meanwhile, Semester 8 students ventured to the vibrant coastal region of Goa to gain hands-on experience in another industrial setting.



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Editorial Board

Faculty



Sandeep K V

<u>Student</u>

Muhammed Ajmal S7 ME Nayof K S S7 ME

