



**LATEST IN MECHANICAL ENGINEERING!!**

**MIT Develops New Material Stronger Than Steel but as Light as Plastic**

MIT engineers have developed a revolutionary new polymer, called 2DPA-1, which is twice as strong as steel but lightweight and flexible like plastic. This material is created using a novel polymerization technique, forming sheets instead of tangled chains, making it incredibly durable and resistant to cracks. The breakthrough could lead to stronger, lighter structures in automotive, aerospace, and construction industries.

**INSIDE THIS ISSUE:**

- Latest in Mechanical Engineering
- Vision, Mission
- Add on course on "Robotics"
- Add on course on "Data acquisition and control of field instruments"
- Faculty Achievements
- Student Achievements
- Toppers (2021-25 Batch)
- Farewell
- Glimpses of Christmas Celebration
- PEOs
- POs and PSOs

**VISION**

"To become a centre of excellence in Mechanical Engineering, producing innovative and creative mechanical engineers to meet the global challenges"

**MISSION**

1. To Provide a platform to the students towards attaining quality education in Mechanical Engineering.
2. To Educate students about professional & ethical responsibilities and train them to build leadership and entrepreneurship qualities for their career development.
3. To Create opportunities and guide students in acquiring career-oriented jobs in the field of Mechanical Engineering.

## ADD – ON COURSE ON “ROBOTICS”

The Department of Mechanical Engineering at VJEC conducted a 5-day Add-On Course on Robotics from December 16 to 20, 2024, in the CAD Lab, Mechanical Block. The course, organized in collaboration with Team Evolve Robotics, provided hands-on training in robotics, Arduino programming, and Python-based computer vision. The program, targeting S4 (2023- 27 Barch) and S6 (2022-26 Batch) ME students, was inaugurated by Cdr. Raju K Kuriakose (Retd.), HOD ME, VJEC, and aimed to equip participants with interdisciplinary skills in hardware and software integration.



## ADD – ON COURSE ON “DATA ACQUISITION AND CONTROL OF FIELD INSTRUMENTS”

The Department of Mechanical Engineering at VJEC conducted a 5-day Add-On Course on Data Acquisition and Control of Field Instruments using PLC and SCADA from January 27 to 31, 2025, at the Forbes Marshall Centre of Excellence, AEI, VJEC. The course, organized in collaboration with Forbes Marshall, provided hands-on training in PLC programming, SCADA integration, and industrial automation. The program, targeting S8 (2021-25 Batch) ME students, aimed to equip participants with practical skills in process control, automation, and real-time data acquisition.



## FACULTY ACHIEVEMENTS

Dr. P Sridharan reviewed one paper for the Journal of Entrepreneurship and Public Policy in January 2025.

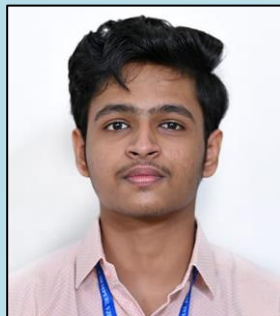


Dr. P Sridharan

Professor

## STUDENT ACHIEVEMENTS

Mr. Jyothish Bijith (2021-25 Batch) secured a placement at Grantley Edutech, Bengaluru, Karnataka, as an Academic Counsellor.



Mr. Jyothish Bijith

VML21ME016



**VIMAL JYOTHI ENGINEERING COLLEGE  
DEPARTMENT OF MECHANICAL  
ENGINEERING**

**KTU UNIVERSITY EXAM TOPPERS  
7TH SEMESTER**



**Joel Sunny  
SGPA 8.47**



**Govind Manoj  
SGPA 8.23**



**Sayooj Rajan  
SGPA 7.87**

**CONGRATULATIONS**

## FAREWELL



The Department of Mechanical Engineering warmly bid farewell to Mr. Aji Augustine, Assistant Professor, expressing deep appreciation for his valuable contributions. Colleagues gathered to acknowledge his dedication and positive influence, wishing him success in his future endeavours. As he embarks on new opportunities, his remarkable guidance and meaningful impact will be remembered, continuing to inspire everyone in the department.

## GLIMPSES OF CHRISTMAS CELEBRATION



### Program Educational Objectives (PEO'S)

**PEO1:** Graduates will be able to pursue successful professional career in Mechanical Engineering with sound technical and managerial capabilities.

**PEO2:** Graduates will have skills and knowledge to formulate, analyze and solve problems in mechanical engineering to meet global challenges.

**PEO3:** Graduates will be capable of pursuing mechanical engineering profession with good communication skills, leadership qualities, team spirit and professional ethics to meet the needs of the society.

**PEO4:** Graduates will sustain an appetite for continuous learning by pursue higher education and research in the allied areas of science and technology.

### Program Outcomes (POs)

**PO1: Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop to the solution of complex engineering problems.

**PO2: Problem Analysis:** Identify, formulate, review research literature and analyse complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)

**PO3: Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/develop systems/components/processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)

**PO4: Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).

**PO5: Engineering Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)



**PO6: The Engineer and The World:** Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

**PO7: Ethics:** Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)

**PO8: Individual and Collaborative Team work:** Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.

**PO9: Communication:** Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences

**PO10: Project Management and Finance:** Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.

**PO11: Life-Long Learning:** Recognize the need for, and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

### **Program Specific Outcomes (PSOs)**

**PSO1:** Ability to design and develop mechanical systems tailored for various engineering applications.

**PSO2:** Capability to effectively use resources to improve mechanical system performance

***Mr. Arunlal M P (Asst. Prof, ME)***

***Student Editors:***

***Mr. Sayooj Rajan (S8 ME), Mr. Joel Sunny (S8 ME)***