

"Where Mechanics, Electronics and Computing Converge"

DEPARTMENT OF MECHATRONICS ENGINEERING

A.Y. 2024-25 (SEM-II) • May 2025



Welcome and best wishes to all the friends of the Department who receive this Newsletter.

This Newsletter is an attempt towards achieving Motivation. This is one of the first university affiliated departments in the Savitribai Phule Pune University to offer a Bachelor of Engineering degree program in Mechatronics Engineering.

Vision, Mission & PSO

Vision

To be a centre of excellence in mechatronics engineering producing competent professionals capable of developing innovative solutions for industry and society.

Mission

M1: Providing quality education in interdisciplinary domains through integration of hardware and software systems, while fostering professional ethics and lifelong learning for industry and societal needs.

M2: Equipping students with skills to design, develop, and implement efficient, reliable, and socially relevant engineering solutions through teamwork, innovation, and effective communication.

M3: Promoting innovation, practical learning, and strong industry interaction, enabling students to address real-world challenges and pursue research, entrepreneurship, and emerging technologies.

Program Specific Outcomes (PSO)

PSO1: To be able to apply fundamentals of mechanical, electrical, electronics and control engineering to design, analyze and maintain a mechatronics system.

PSO2: To be able to develop and implement solutions for industrial and societal problems applying multidisciplinary engineering principles.

MESSAGE FROM HEAD OF THE DEPARTMENT



Dr. Sonali S. Patil

Head of Department, Mechatronics

A mechatronic system is a multidisciplinary system embodying a synergistic combination of the disciplines of electrical/electronics, mechanical and computer science / information technology. In today's world mechatronic products and systems are all around us, such as the modern auto focus camera, washing machines with electronic controls, and printing and photocopy machines. Modern automobiles have several mechatronic systems such as electric power assisted steering, engine management system and cruise control.

The newsletter is one of the ways in which we can disseminate information on the life of the Department. This semester saw expert lectures from industry, industrial visits, Techno-Sci 2025 and a parent-teacher meeting, while our students won awards at national level ATV and go-kart championships and presented their work at a national technical seminar. As you read through the pages you will realize that the Department had a particularly successful semester.

I would like to thank all my colleagues for their tireless efforts to help the department progress at a very steady pace.

- Dr. Sonali S. Patil (HoD Mtrx.)

EDITOR'S VIEW

This newsletter is a space for our students and staff to share how they tackle real-world problems by drawing on ideas from different disciplines. Through these pages, you'll see their creativity, fresh thinking, and practical solutions that could make a difference in almost any workplace. This newsletter grows with your involvement, so we'd love to hear what you think. Your feedback means a lot to us!

- Ms. Mayuri Mhaske (Faculty Editor)

Events

Techno-Sci 2025 – Robo Race Competition

As part of Techno-Sci 2025, the department organised a Robo Race competition on 29th March 2025.

Teams navigated their self-built robots through obstacle tracks, which encouraged innovation and problem-solving.



Techno-Sci 2025 – Robo War Competition

The Robo War competition, held on the same day, saw robots battle each other in a custom-built arena.

Participants showcased their technical creativity and engineering design skills.



Parent-Teacher Meeting (Term II)

The Parent-Teacher Meeting for Term II was held on 22nd March 2025.

It strengthened communication between faculty and parents and helped them better understand each student's progress.



Expert Lectures

Expert Lecture on Robotics Automation

Ms. Srushti Bagawe, Control Engineer, delivered an expert lecture on 18th March 2025, held in association with Probotix Control System India Pvt. Ltd.

The session focused on practical applications of robotics and automation in modern industry.





Expert Lecture on Advanced Industrial Automation

On the same day, Mr. Saurabh Ahelleya, Manager – L&D, spoke to students, also in association with Probotix Control System India Pvt. Ltd.

Students gained insights into recent technological trends in industrial automation systems.

Expert Lecture on Product Design and Development

Mr. Akshay Pund, Product Manager, delivered an expert lecture on 20th March 2025, held in association with CoreCentric Solutions India Pvt. Ltd.

The session gave an overview of modern product design processes and innovative industrial practices.



Industrial Visits

Industrial Visit to Om Sai Foods and Beverages

Students visited Om Sai Foods and Beverages on 24th March 2025.

They explored the automation systems used in bottle manufacturing and filling, which deepened their understanding of industrial control systems.



Industrial Visit to Probotix Control System India Pvt. Ltd.

On 8th April 2025, students visited Probotix Control System India Pvt. Ltd.

They watched industrial robot programming, control systems and automation integration in real time.

Faculty Achievements

Our faculty members continued to upgrade their knowledge by taking part in Faculty Development Programmes, conclaves and teacher training in emerging areas.

Mrs. Meghna Yashwante, Assistant Professor, completed two AICTE Training and Learning (ATAL) Academy Faculty Development Programmes: “Innovations and Challenges in Adopting Clean Energy Technologies for Sustainable Development” at Prestige Institute of Management and Research, Bhopal, from 6th to 11th January 2025, and “Energy and Electric Vehicles in India: Opportunities, Challenges and Futures” at Meenakshi Sundararajan Engineering College from 27th January to 1st February 2025.

Mr. Harshal Dattatray Vaidya participated in the National Level Five Days Online Faculty Development Programme on “Recent Trends in Hybrid & Electric Vehicles,” organised by the School of Mechatronics Engineering, Symbiosis Skills & Professional University, Pune, from 24th to 28th March 2025.

Certificate Gallery



ATAL FDP – Clean Energy



ATAL FDP – Energy & EVs



Hybrid & EV FDP

Student Achievements

Competition Achievements

Our students competed at two national level vehicle championships this semester and came back with four awards.

Aravalli Terrain Vehicle Championship-2025

Team Invader took part in the National Level ATV Competition 'Aravalli Terrain Vehicle Championship-2025', held at I.E.S. University Campus, Bhopal, from 20th to 24th March 2025, and won four awards in the IC category:

- Overall Championship Runner-up – Trophy and Rs. 20,000/-
- Best Endurance Winner – Trophy and Rs. 20,000/-
- Best Acceleration Winner – Trophy and Rs. 10,000/-
- Best In-house Built ATV – Gift Hamper



Edgeline Championship-2025

Our students participated in the National Level Go-Kart Competition 'Edgeline Championship-2025', held at Ajeenkya D. Y. Patil University Campus, Lohgaon, Pune, from 6th to 9th February 2025.

The event gave the team valuable experience in vehicle design, testing and teamwork.

Paper Publication

Saurabh Bante and Ketan Awhale (Semester VIII) took part in the All India Seminar and Publication of Annual Technical Journal-2025, organised by The Institution of Engineers (India). Their work appears in Volume 46, Issue 1 of the journal, and they received a certificate of participation. Congratulations to both students on this achievement!



Editorial Board & About Us

Editorial Board

FACULTY EDITOR

Ms. Mayuri Mhaske

Department of Mechatronics Engineering

STUDENT EDITOR

Ashutosh Agarwal

HEAD OF DEPARTMENT

Dr. Sonali Patil

About the Institute

Marathwada Mitra Mandal's Institute of Technology, Lohgaon Pune was established in 2008 and conducts the following courses leading to a Bachelor's Degree in Engineering:

- Computer Engineering
- Mechatronics Engineering
- Mechanical Engineering
- Civil Engineering
- Artificial Intelligence & Data Science

All these courses are approved by All India Council for Technical Education (AICTE), New Delhi, sanctioned by Govt. of Maharashtra and affiliated to Savitribai Phule Pune University. The Marathwada Mitra Mandal Society, Pune was established in 1963.

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