

"Where Mechanics, Electronics and Computing Converge"
DEPARTMENT OF MECHATRONICS ENGINEERING

A.Y. 2023-24 (SEM-I) • December 2023



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. Mukesh G. Ghogare

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. The past semester saw workshops, expert sessions and club activities that kept our students engaged and learning beyond the classroom. 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.

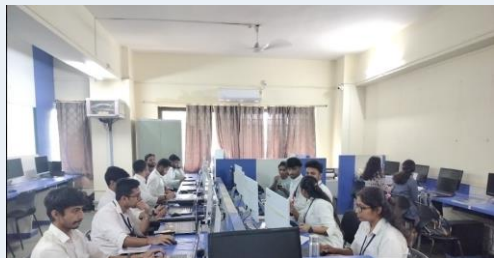
- Dr. Mukesh G. Ghogare (HoD Mtrx.)

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!

- Asst. Prof. Apurva Ulhe, (Faculty)

Events



CAD Design Competition

MXESA organised a national level CAD Design Competition on 11/08/2023 for the students of the department.

Five Days Workshop on Advanced Industrial Automation Training

The Robotronix club organised a five days add-on course from 12th to 16th September 2023, with Mr. Himanshu Kumar, Director – INDWELL Automation, Mangaluru, Karnataka, as the speaker. It aimed to build automation awareness of PLC, HMI, SCADA, drives and analog signals, with practical exposure to real applications.

The course focused on:

- Introduction to PLC and its types – hardware, software, logic development
- HMI: interfacing with PLC, screen development, analog data configuration and scaling
- SCADA: interfacing with PLC, screen development, digital and analog data configuration
- AC Drive: hardware, parameter setting, speed, direction, acceleration and deceleration time control of induction motor
- Analog signals: standard signal types, block diagram, ATD and DTA conversion program and wiring, interface with SCADA





Poster Presentation – Engineer’s Day

Organised by MXESA of the Mechatronics Department on 15th September 2023 on the occasion of Engineer’s Day, the national level poster presentation “RoboVision: Exploring Future of Intelligent Machines” invited students to depict and explain their understanding of the branch.

As Mechatronics is a multidisciplinary branch, the department received a wide variety of posters through the event.



Industry Expert Talk

“My Story” – Motivational Session by Entrepreneur / Startup Founder

28th November 2023. This session was organised by the faculty of Mechatronics in collaboration with IIC. Mechatronics students attended the session in an interactive manner.

The outcome was to spread knowledge about entrepreneurship and the startup ecosystem, show how students can take startups as a career option while studying, and motivate students and faculty to pursue the same. It was also an inspirational session on employability and the better opportunities that core knowledge in the field can bring.



Faculty Achievements

Our faculty members actively upgraded their knowledge by participating in Faculty Development Programmes and training in emerging areas, and shared their expertise as resource persons.

Dr. Mukesh G. Ghogare served as a resource person for the programme on “Recent Trends in Industrial Automation and Robotics,” organised by Amrutvahini Polytechnic, Sangamner, on 25 November 2023. In his session, he shared insights on the latest developments in automation technologies and robotics and their growing role in modern industry.

Certificate Gallery



Cloud Infrastructure (AWS)



Battery Management System



FEM – RHTES FDP



Electric Vehicles FDP



ML & AI Training



AI & ML STTP



Innovative Teaching FDP

Student Achievements

Competition Participation

Our students represented the department at national and international platforms.

TechnoXian — World's Biggest Robotics Championship



Om Chandrakant Jadhav | 25th–27th July 2023

Successfully participated in the Sr. Robo Race challenge of TechnoXian, held at Noida Indoor Stadium Complex, Noida NCR.

Class Toppers

S.E. – Topper

Rank	Name of the Student	SGPA
1	Bante Saurabh Radhesham	8.41
2	Mulla Rehan Rahesaab	7.7
3	Awhale Ketan Dattatray	7.16

T.E. – Topper

Rank	Name of the Student	SGPA
1	Lawand Omkar Bajirao	9.12
2	Malekar Sharayu Nanasaheb	9
3	Nawale Shubham Mahesh	8.48

“It always seems impossible, until it’s done.” – Nelson Mandela

Editorial Board & About Us

Editorial Board

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Department of Mechatronics Engineering

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HEAD OF DEPARTMENT

Dr. Mukesh Ghogare

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.

CONTACT US

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