

## DEPARTMENT OF MECHATRONICS ENGINEERING

December ,2022

Academic Year 2022-23



### Message from Head of the Department

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.

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, printing and photocopy machines etc. Modern automobiles have several mechatronic systems such as electric power assisted steering, engine management system, cruise control etc.

The newsletter is one of the ways in which we can disseminate information on the life of the Department. The past semester was highly affected by the Pandemic of Covid-19. Most of the activities were conducted through online mode. As you read through the pages you will realize that the Department had a particularly successful semester, during pandemic.

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

-Dr Anjali J. Joshi (HoD Mtrx.)

### Editor's View

This Newsletter also gives an opportunity to our students and staff to creatively solve real life problems with an interdisciplinary approach. Their insights, innovative ideas and to show how this can be applied in almost any organization. The success of this newsletter depends on your response. Your feedback is highly appreciated.

-Asst. Prof. Sonali S. Patil



## Syllabus framing and implementation workshop

Mechatronics is the new discipline introduced in SavitriBai Phule Pune University in Academic Year 2020-21. The syllabus for Third Year was framed with help of Board of studies Members , Academicians etc. Faculties from our department contributed excellently in the same.

## Two Days Workshop on Arduino Kit and Arduino IDE Software

The Mechatronics department organised a two days workshop on Arduino Kit and Arduino IDE software. The workshop aimed to provide an Introduction to the ARDUINO Environment. The workshop was conducted on 13th and 14th September 2022 by Mr Rigved Kelkar. The workshop gave insight into the programming of ARDUINO using ARDUINO IDE software. The participants came to know interfacing and control of different peripherals by using ARDUINO. Students have learned a simple pathway to creating interactive objects that can take input from switches and sensors, and control physical outputs like lights, motors or actuators. 40 participants get benefited with this workshop.



Images of workshop

## One Day workshop on Hands on for MATLAB SOFTWARE

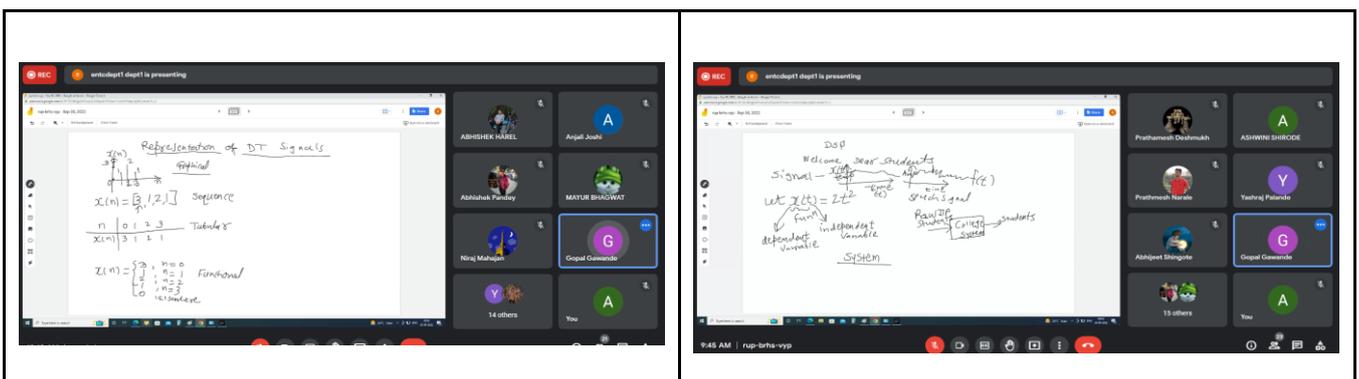
The one day was organized by Mechatronics Engineering Department on 12 nd Oct 2022. The resource person was MrRigved Kelkar. The objective of the workshop is to learn appropriate techniques for programming and simulation with MATLAB. The 35 participants got to learn the scope of MATLAB to use as a simulation tool for the real life applications.



One day workshop on Hands-on for MATLAB-Software

**Expert Lecture on Concept of Digital Signal Processing**

The expert lecture was organized on Concept of Digital Signal Processing on 22nd Oct 2021 by Dr. G. S. Gawande. The objective of the expert lecture was to provide a valuable platform to understand the basic concepts and techniques for processing signals and digital signal processing fundamentals and to describe signals mathematically and understand how to perform mathematical operations on signals. It will provide knowledge of Digital filters. Mechatronics engineering is the multidisciplinary branch of engineering and digital signal processing is one of the important concepts. Total 37 students benefited from the students.



Images of Expert Lecture

**Result for the academic year 2021-22**

The second year of curriculum is runned successfully and following students achieved top ranks in the academics.

Rank	Name of the Student	SGPA
1	Sharayu Malekar	8.39
2	Vrushabh Jain	8.30
3	Omkar Lawand	8.05
4	Niraj Mahajan	8.02
5	Abhijeet Shingote	7.93

*It always seems impossible, until it's done. -Nelson Mandela.*

Marathwada Mitra Mandal's Institute Of Technology, Lohgaon Pune was established in 2008 and conducted the following Courses leading to Bachelor's Degree in Engineering 1.Computer Engineering 2. Mechatronics Engineering 3. Mechanical Engineering 4. Civil Engineering 5.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.

*College Website:*  
www.mmit.edu.in

*College Address:*  
S.No.18, Plot No. 5/3, Lohgaon, Pune-47

## DEPARTMENT OF MECHATRONICS ENGINEERING

June ,2023

Academic Year 2022-23



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The newsletter is one of the ways in which we can disseminate information on the life of the Department.

This Semester we planned towards teaching effectively by practical training and execution. For this, we organized many activities in the second half of the academic year. As you read through this newsletter, you will get the detailed information about events and activities the department has conducted.

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

-Dr Anjali J. Joshi (HoD Mtrx.)

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-Asst. Prof. Sonali S. Patil



## Syllabus framing and implementation workshop

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**Following are the highlights of second half of Academic year 2022-23**

### Industrial Visit at MahaMetro ,Pune

The Department of Mechatronics Engineering of MMIT Lohgaon organized an Industrial visit to Mahametro, Pune. on 7th September 2022 for S.E. & T.E. Mechatronics Engineering students to study the operation and Underground Construction work of Mahametro, Pune. The visit was organized as per Pune University guidelines.

Name:- MahaMetro, Pune

Location:- Garware College Metro Station

Purpose of Visit:- To Study the operation and Underground Construction work of Mahametro, Pune

Details of Activity:

1. Attending Metro Samvad at Garware College station
2. Return journey to Vanaz from Garware college station
3. Underground tunnel section visit at City Court metro station (Shivajinagar).



**Glimpses of Industrial Visit**



**Glimpses of Industrial Visit**

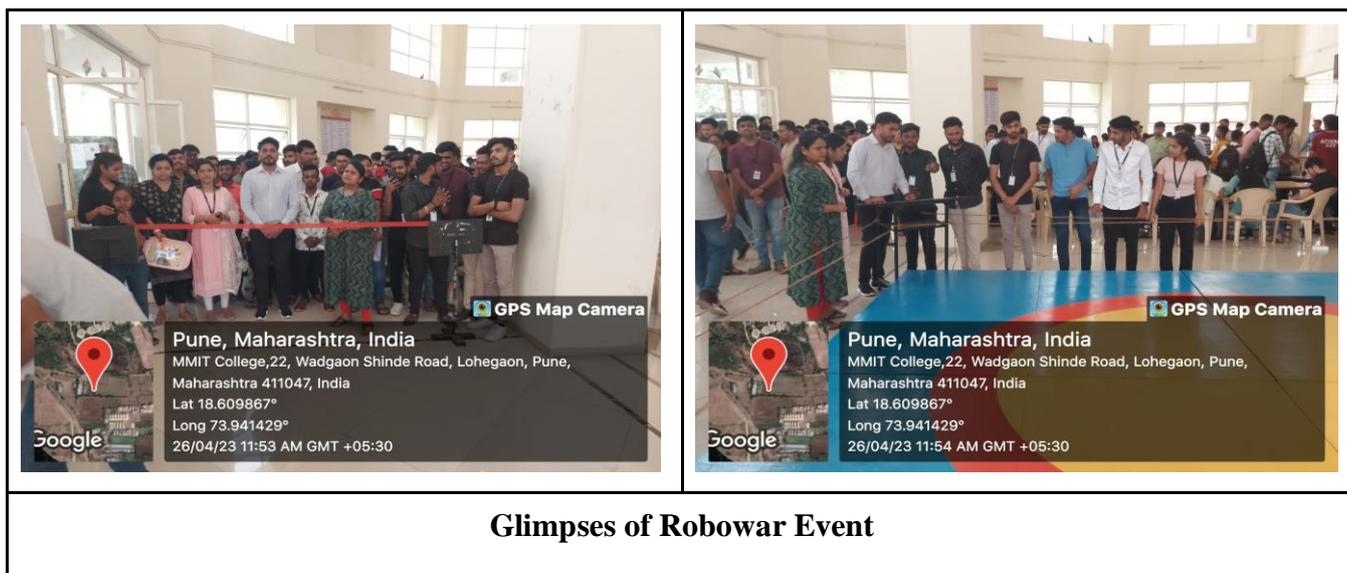
### **Techno-Sci-2K23-Robowar Event**

Last Semester was about Robomaking training & Workshop. To uplift and enhanced skills learnt in the previous sem, this semester the interesting event like Robowar was organized. The Robowar is a thrilling event at robowar arena where you can organize fights among robots. The event included three concentric circles namely red, yellow and blue colored on the arena. Ultimately, the goal of the event was to push the opponent's robot in the outer circle. This promoted the rigid and reliable design ideas of robots and good driving skills. This event was organized **In Association with:** MMIT-IIC Center, IEI Student Chapter and CSI institutional

**Date:** 26th April 2023

**Level of the event:** State Level

**Total no. of participants: Students = 08**



Glimpses of Robowar Event

### Techno-Sci-2K23-Roborace Event

To enhance Robomaking skills and to practically test the robots to find out challenges real time, this event was organized. To make students more interested in robotics and ultimately into mechatronics we arranged such an event. The objective of Roborace with multiple hurdles events is to challenge teams to push the limits of autonomous driving technology by completing a complex obstacle course with their self-driving race cars. The course includes multiple hurdles such as tight turns, high-speed straights, and other challenging maneuvers. Ultimately, the goal of the event is to inspire new breakthroughs in autonomous driving technology and accelerate the adoption of self-driving cars. This event was organized **In Association with:** MMIT-IIC Center, IEI Student Chapter and CSI institutional

**Date:** 26th April 2023

**Level of the event:** State Level

**Total no. of participants:** Students = 16



### Glimpses of Roborace Event

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