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Department of Mechanical Engineering

MECHAZINE

Bi Annual Bulletin

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Team Mechanical

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⚙️ Dr. Milind S. Kirkire	(Professor and HoD)
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⚙️ Dr. Milind S. Yadav	(Professor and Dean Academics)
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⚙️ Mr. Vikram S. Chougule	(Associate Professor)
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⚙️ Mr. Vidyasheel S. Bagade	(Assistant Professor)
⚙️ Mrs. Gayatri M. Kirkire	(Assistant Professor)
⚙️ Mrs. Abhilasha S. Jadhav	(Assistant Professor)
⚙️ Mr. Sumit S. Malusare	(Assistant Professor)
⚙️ Mr. Harshal R. Salvi	(Assistant Professor)
⚙️ Mr. Hemant V. Chavan	(Assistant Professor)
⚙️ Mr. Amar S. Yekane	(Assistant Professor)
⚙️ Mr. Jayesh S. Anavkar	(Assistant Professor)
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⚙️ Mr. Sachin S. Gurav	(Assistant Professor)
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⚙️ Mr. Abhijit M. Date	(Assistant Professor)
⚙️ Mr. Pratik R. Kamble	(Assistant Professor)
⚙️ Mr. Mandar S. Padhye	(Assistant Professor)
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Staff Members

- ⚙️ Mr. R. V. Utekar
- ⚙️ Mr. A. V. Nhivekar
- ⚙️ Mr. A. A. Lingayat
- ⚙️ Mr. V. V. Lohar
- ⚙️ Mr. D. Y. Mestry
- ⚙️ Mr. M. V. Shetye
- ⚙️ Mr. P. S. Korgaonkar

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Department Vision



Department Mission



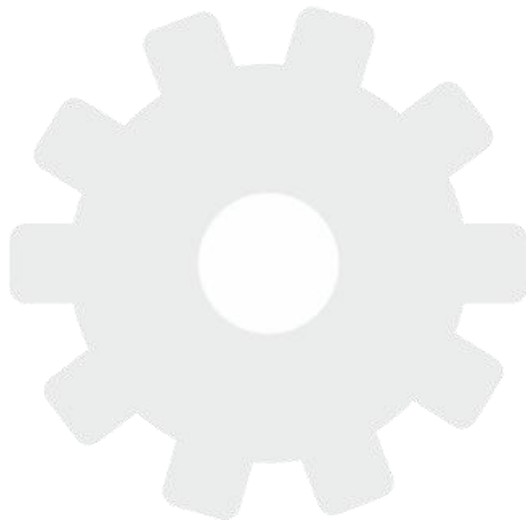
Program Specific Outcomes (PSOs)



Programs organized by the Department



Faculty Achievements



VISION

- ⚙️ **To become a center of quality education by developing competent engineers who can address challenges in the field of mechanical engineering.**

MISION

- ⚙️ **To establish state of the art facilities in department enabling effective training of students and creating research environment**
- ⚙️ **Evolve competent technical professionals through effective delivery of curriculum and contents beyond, which fulfil the needs of industry and society.**
- ⚙️ **To inculcate sense of social responsibility and human values amongst the students.**

PROGRAM SPECIFIC OUTCOMES

- ⚙️ **Students will be able to investigate problems in the fields of design, thermal and manufacturing processes through application of statistical techniques**
- ⚙️ **Students will be able to provide computer-based automation solutions to mechanical and allied industries.**

Programs Organized by department

Two Days Workshop on Geometric Dimensioning and Tolerancing (GD&T)

The Department of Mechanical Engineering organized the two days certified Workshop on Geometric Dimensioning and Tolerancing (GD&T) in association with Mechatol Product Engineering Solutions Pvt. Ltd. Pune, under the guidance of Dr M.S. Kirkire (Head- Mechanical Engineering Department) on 6th and 7th January 2023 for T.E. and B.E. Mechanical Engineering students.

The objective was to make the students understand how to apply the concepts of GD & T in design, manufacturing and inspection. The session began with an introductory speech by Mr Sahil Terse (Student, Third Year Mechanical Engineering). Dr M. S. Kirkire felicitated the Industry expert Mr. Anand Bhise (Director, Mechatol Product Engineering Solutions Pvt. Ltd, Pune) who was the resource person for the workshop. During the two days of this workshop, the following contents were covered:

- The contrast between conventional and GD & T tolerance zones
- MMC, LMC and RFS
- Significance of selection of datum and datum features
- Point out form, orientation, profile, run-out and orientation controls



Dr M. S. Kirkire felicitating Mr Anand Bhise (Resource Person)

Different industrial case studies were also discussed with the participants. The program was organized under the guidance of Dr M. S. Kirkire, Head of Mechanical Department. Prof. P. R. Kamble coordinated the webinar successfully. Mr Sahil Terse (TE Mechanical) anchored the program. A total of 103 students participated in the workshop.

Industrial Visit to Fabri-Tek Equipment's Private Limited

Department of Mechanical Engineering organized an industrial visit FabriTek Equipment's Private Limited, MIDC, Kudal on Thursday 23/02/2023. This visit was a part of the professional student chapter activity. A total of 40 Third and final-year students participated in this visit.



Prof Hemant V Chavan with company officials and FAMT students

FabriTek Equipment's Private Limited is in the field of manufacturing flow elements, process equipment, piping, fabricated components. The objective of the site visits is to explore and understand the manufacturing process of process equipment such as heat exchangers, storage tanks etc.

The visit was coordinated by Prof. Hemant V Chavan under the guidance of Dr M. S. Kirkire, HoD Mechanical Department

Programs Organized by department

Industrial Visit to Gadark Lab Private Limited

Department of Mechanical Engineering organized an industrial visit to Gadark Lab Private Limited, MIDC, Kudal on Thursday 23/02/2023. This visit was a part of the professional student chapter activity. A total of 40 Third and final-year students participated in this visit.

Gadark Lab Private Limited is in the field of Environmental Monitoring and consultancy. It deals with controlling environmental sectors such as Ambient Air and Stack Monitoring, Effluent Monitoring, Noise Measurement, Water Analysis, Solid Waste Analysis, Municipal Solid Waste Analysis, and Hazardous Waste Analysis. Industrial Hygiene sector such as Work Place Monitoring, Personal Monitoring, Heat Stress, Noise Mapping & Noise Dosimetry, Indoor Air quality analysis are also included.

The objective of the site visits is to explore and understand laboratory equipment and testing methods for controlling environmental parameters, agricultural parameters and pharmaceutical parameters. The visit was coordinated by Prof. Hemant V Chavan under the guidance of Dr M. S. Kirkire, Head of Mechanical Department.



Prof. Hemant Chavan along with students at Gadark lab Pvt. Ltd. kudal

Memorandum of Understanding (MoU) with Bhagirathi Enterprises

Department of Mechanical Engineering signed a Memorandum of Understanding (MoU) with Bhagirathi Enterprises, MIDC, Kudal on Thursday 23 February, 2023.

Bhagirathi Enterprises is an Industrial part solutions company in Maharashtra working for Godrej & Boyce Manufacturing Company Limited, Thermal Instruments India Private Limited and Pranjali Techno visions.



Prof Hemant V Chavan with Mr and Mrs Khochare Proprietor Bhagirathi Enterprises, Kudal

This MoU is for three years from 23/02/2023 and will be beneficial for the students in terms of Industrial visits, CNC manufacturing, technical discussion and practical exposure to the various manufacturing machines.

Seminar on Career Opportunities in Merchant Navy

The Department of Mechanical Engineering organized a seminar on Career Opportunities in Marine Engineering on 27th February 2023. Mr Prasad Mane, Second Engineer, Scorpio Marine Management India Pvt. Ltd. interacted with the 34 students of Second, Third and Final Year Mechanical Engineering, to create awareness about

Programs Organized by department

opportunities in the Merchant Navy.

The head of the Department, Dr Milind Kirkire felicitated Mr Prasad Mane. Prof Sumit Malusare and Prof Pratik Kamble arranged the program under the guidance of the Head of Mechanical Engineering Department. Mr Prasad Mane shared his thoughts briefly about a career in the Merchant Navy and highlighted the importance of Marine Engineering, the career prospects in the merchant navy, admissions procedure, the list of institutes and the fee structure.

He also guided the students about approaching the relevant companies and the cadres. A total of 34 students from SE, TE and BE Mechanical Students could get the information about roles and responsibilities of Marine Engineers. Prof Sumit Malusare presented a vote of thanks to Mr Prasad Mane for a very informative session.



Mr Prasad Mane shares thoughts with an informative presentation

MESA Organized MECHOTSAV 2023

MECHOTSAV 2023 was organized at the Finolex Academy of Management & Technology on 28th February 2023 by Mechanical Engineering Students Association [MESA].

The inauguration ceremony took place

in the Workshop building. Dr Kaushal Prasad [Principal], Dr Milind S. Kirkire [Head of Mechanical Engineering Department & Dean Student Affairs], Prof. R. M. Rasal [MESA Faculty Advisor] inaugurated the event. The events were designed in such a way that participants enjoyed and learned some technical knowledge and skills and enhance their interest in academic and extracurricular activities.



Inauguration of MECHOTSAV 2023

MESA administered the event under the guidance of Dr. Kaushal Prasad [Principal], Dr. Milind S. Kirkire [Head of Mechanical Engineering Department & Dean Student Affairs], Prof. R. M. Rasal [MESA Faculty Advisor] and Prof. M. S. Padhye [MESA Faculty Co-Advisor].



Design Competition

Programs Organized by department



Tug of War

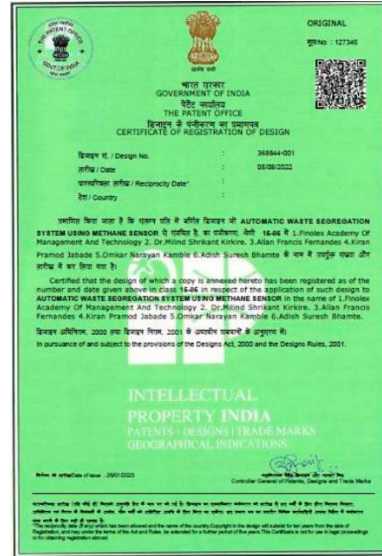
Following events were conducted under MECHOTSAV 2023

- Design Competition
- Lathe War
- Engineer Entrepreneur
- Box Cricket
- Futsal
- Tug of War
- Content creation

MESA Head Mr. Rushikesh Bandarkar, Ladies Representative Ms. Mrunmayee Raorane, Assistant MESA Head Mr. Aryan Mahakal, and other student coordinators worked hard and made the event a grand success. A total of 68 students participated in various events organized.

FAMT Faculty & Students Received Patent for Automatic Waste Segregation System Using Methane Sensor

The Indian Design Patent Automatic Waste Segregation System Using Methane Sensor has been granted to FAMT and Dr Milind S Kirkire, Professor and Head, Mechanical Engineering Department, jointly with Mr Allan Fernandes, Mr Kiran Jabade, Mr Omkar Kamble, Mr Adish Bhamte (the students of Mechanical Engg. 2020 Batch. The innovation was part of the final year project carried out by the above team of students under the guidance of Dr Milind Kirkire.



Patent for Automatic Waste Segregation System Using Methane Sensor

Industrial Visit to Aboobaker Ice plant

The Department of Mechanical Engineering of Finolex Academy of Management and Technology, Ratnagiri organized an Industrial Visit to Aboobaker Ice & Cold Storage, MIDC, Mirjole, Ratnagiri on 18th March 2023 for the Third Year Mechanical Engineering students.



Prof. Hemant V Chavan & Prof. Sachin S Gurav with the Students

The visit was organized for the Sixth Semester subject "Heating, Ventilation Air conditioning, Refrigeration, of Mechanical

Programs Organized by department

engineering

The student gained knowledge about the Ice Plant, working of a Vapour Compression Refrigeration System. They also got the opportunity to observe the working of a three-cylinder Reciprocating Compressor and Induced Draft Cooling tower very closely. A total of 141 students were present during the visit.

Prof. S. S. Gurav & Prof. H. V. Chavan were the coordinators for this industrial visit. We are very much thankful to all the staff of Aboobaker Ice Plant for their kind cooperation.

Faculty Achievements

Dr. Milind S. Kirkire

- Reviewer of Journal of Modelling in Management.

Dr. Shashikant S. Goilkar

- Published a paper Design and Fabrication of Surveillance Rover in the Journal of Emerging Technologies and Innovative Research (JETIR).
- Published a paper Design and modal analysis of screw agitator and arm followed by fabrication and installation for dry mixing of ingredients to make ready to mix drink powders in Materials Today :Proceedings
- Published a paper Conical vessel screw agitator fabrication after design and structural analysis for dry mixing of chemical ingredients for pharmaceutical tablets in Materials Today :Proceedings
- Published a paper An Overview of the Untapped Potential of Soft Robotic Arms With Integration of Machining Tools at 7th International Conference on Production and Industrial Engineering (CPIE 2023)
- Completed FDP on Recent Trends in Advanced Manufacturing Technology by D Y Patil College of Engineering, Akurdi, Pune on 24th to 28th April 2023.

Dr. Milind S. Yadav

- Published A book chapter titled "Effect of Addition of Oxy-Hydrogen Gas on Emission Characteristics of Multi Fuel VCR Engine" in Book titled Emerging Trends in Applied Research, Vol. 4
- Completed 2 Days Workshop on N I PS - N E P Implementation Pathway Services on 10th and 11th January 2023 at I²IT Pune.
- Completed 2 Days Workshop on Implementation of NEP 2020-Multidisciplinary Education on 10th and 11th January 2023 at I²IT Pune.
- Chaired the Poster / Paper Presentation Session at Thakur College of Engineering on 20th to 25th February 2023.

Prof. Sachin S. Mestry

- Published a paper Analysis of High Head Low Discharge Solar Water Pump in international Journal of Creative Research Thoughts (IJCRT)
- Published a paper Quadrapod Spider Robot in International Journal of Multidisciplinary Research in Science, Engineering, Technology & Management (IJMRSETM)

Faculty Achievements

Prof. Vidyasheel S. Bagde

- Published a paper Working of Air Gun on Solar Power in International Journal of Creative Research Thoughts (IJCRT)
- Completed FDP Recent Trends in Advanced Manufacturing Technology on 24th to 28th April 2023

Prof. Sumit S. Malusare

- Jury (In AWIM regional Olympics 2022 by Mahindra & Mahindra in association with SAE India) on 23rd January 2023.

Prof. Amar S. Yekane

- Published a paper Autonomous Scheduling and Routing System to Maximize Machine Shop Throughput at Second International Conference on Next Generation Intelligent Systems (ICNGIS)2022 on 30th March 2023.
- Published a paper Casting Waste Reduction in Case of Hybrid gating System Using Simulation Technique at 4th International Conference On Waste Management on 18th to 19th May 2023.
- Completed FDP Recent Trends in Advanced Manufacturing Technology on 24th to 28th April 2023
- Jury (In AWIM regional Olympics 2022 by Mahindra & Mahindra in association with SAE India) on 23rd January 2023.

Prof. Jayesh S. Anavkar

- Published a paper Plastic shredder Machine in Proceedings of international conference on Sustainability in industry 4.0
- Published a paper Precooling of air in centralized air conditioner in Proceedings of international conference on Sustainability in industry 4.0
- Completed one day virtual workshop on DATA ANALYSIS USING SPSS by SAVEETHA school of management on 8th April 2023.

Faculty Achievements

Prof. Mahadev L. Naik

- Completed FDP on INNOVATION, RESEARCH AND IPR - JOURNEY TOWARDS EXCELLENCE by SPCE Mumbai on 1st to 5th March 2023.
- Completed one day virtual workshop on DATA ANALYSIS USING SPSS by SAVEETHA school of management on 8th April 2023.
- Published a paper Design and Development of Hybrid Electric Skate Scooter in International journal of creative research thoughts (IJCRT)

Prof. Prabodh B. Horambe

- Completed FDP on Recent Trends in Advanced Manufacturing Technology on 24th to 28th April 2023.

Prof. Abhijit M. Date

- Published a paper Development of Battery operated Water Sprayer For Agricultural Purpose International Research Journal of Modernization in Engineering Technology and Science
- Filed a patent Winnowing Machine for Rice

Prof. Mandar S. Padhye

- Completed FDP on Electric Vehicles Part 1
- Published a paper Design and Development of Agricultural Spray Pump in International Research Journal of Modernization in Engineering Technology and Science
- Completed 3 days online workshop Basics of Electric vehicles and its Design Process on 20th to 22nd January 2023.
- Completed One Week Online International Symposium & Workshop on on EV Technology and Battery Modelling on 28th February to 5th March 2023.
- Completed NPTEL course on Electric Vehicles Part 1

Dr. Kedar G. Bhide

- Completed NPTEL course German II