

MECHANICAL ENGINEERING DEPARTMENT



YASHO TECH MECH

WE ARE GEARS OF TOMORROW

YSPM

Odd 2021-2022



YSPM's Yashoda Technical Campus, Satara

Mechanical Engineering Department

YASHO TECH MECH

Odd Semester

2021-22

OVERVIEW OF THE DEPARTMENT

The Mechanical Engineering program leading to the bachelor's degree in Mechanical Engineering (B. Tech.) is having a structured curriculum that prepares students for a broad range of career choices in the different areas of Engineering. The Course is intended for students whose career objectives require greater flexibility. Mechanical Engineering deals with material selection, design and production of tools, machines, and all other Mechanical equipment to be used in industries. Our Department prepares the students who are the driving forces behind many of our technologies and industrial processes including innovative products.

The Mechanical Engineering Department has been accredited with institute level accreditation program by National Assessment and Accreditation Council (NAAC) with B+ grade.

Our Departmental faculties are specialized in areas like Thermal Engineering, Design, Materials and Manufacturing & CAD/CAM etc. Our Students have been recruited in many reputed organizations.

Strength of Department

- Good infrastructure.
- Well-equipped laboratories.
- Well-qualified and experienced teaching faculties.
- Departmental Library facility for students.
- Personal Monitoring of Students with the help of Guardian Faculty Members
- Good academic performance
- Good Campus Placement Record
- Faculty Retention

Vision of the Department

To be identified as a department with excellence in academics by synergism of teaching-learning, skill development and research.

Mission of the Department

M1 : To develop state of the art facilities to stimulate faculty, staff and students to create, analyze, apply and disseminate knowledge.

M2 : To hone employability and entrepreneurship skills of the students through industry-institute interaction.

M3 : To create an environment for the students to excel in mechanical engineering field, engage in research and development activity and participate in professional activities.

M4 : To develop an ability to use techniques, skills, modern software and machine tools necessary in the practice of Mechanical Engineering Profession.



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Program Educational Objectives (PEOs)

PEO1 : Graduates should excel in engineering positions in industry and other organizations that emphasize design and implementation of engineering systems and devices.

PEO2 : Graduates should excel in best post-graduate engineering institutes, acquiring advanced degrees in engineering and related disciplines.

PEO3 : Alumni should establish a successful career in an engineering-related field and adapt to changing technologies.

PEO4 : Graduates are expected to continue personal development through professional study and self-learning.

PEO5 : Graduates should be good citizens and cultured human beings, with full appreciation of the importance of professional, ethical and societal responsibilities.

Program Specific Outcomes (PSOs)

PSO1 : Make the students employable in engineering industries.

PSO2 : Motivate the students for higher studies and research.

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INSIDE

1. STUDENT ARTICLES

2. FACULTY ARTICLES

3. FACULTY STUDENT CORNER

4. Art Gallery

Contributors

Faculty Name

Prof. Rathod M L

Prof. Maner V B

Prof. Nimbalkar P P

Prof. Raut S K

Prof. Atpadkar A B

Prof. Shivade A S

Student coordinators

1) Sudarshan Jotiram Sarde

2) Kunal Nandkumar Bagade

3) Kori Sachin Raju

4) Shinde Maheshwari B

5) Kapse Sourabh Dasharath

6) Paramane Shivam Narendra

**All
Students of
Department**

Head of the Department
Mr. V B Maner

Principal
Prof. Dr. R P Kulkarni

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GATE Awareness program

Mechanical Engineering department organized GATE awareness webinar for all final year engineering students. Mechanical Engineering department invited speaker. He has last four year experiences to guidance to final year students about GATE Preparation.

Webinar Summery-

Date of Webinar:04/10/2021

Speaker Name:Mr.S.P.Balip

Speaker Qualification

M.Tech (CAD/CAM),PGDHRM

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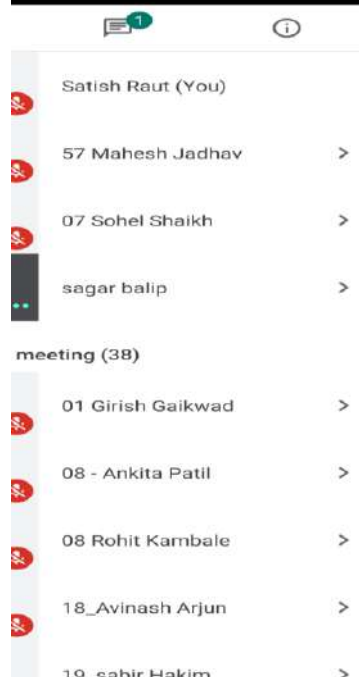
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Topic discuss in webinar:-

1. Process of form-filling.
2. Paper selection of Primary and Secondary subject.
3. Select the Subject code for M.Tech Specialization.
4. Two new subject papers add in examination.
5. Marking Scheme for papers.
6. Briefly information about IIT,NIT and other college.
7. Govt jobs on GATE mark.

Students ask to Balip sir about differences between GATES qualify and GATE merit. How to plane reaming day for GATE preparation, marking scheme.



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Guest lecture on "Mechatronics & its career opportunities"

A guest lecture on "Mechatronics and Its Career Opportunities" was organized for Final Year B.Tech (Semester VII) Mechanical Engineering students on 16th December 2021. The session was conducted by Mr. Zende R. V., Research Fellow at DBATU University, Lonere. During the lecture, Mr. Zende covered key topics, including:

- Industry 4.0 and Mechatronics - Integration of automation and smart technologies.
- Industry 5.0 - Human-centric manufacturing and advanced robotics.
- Career opportunities - Emerging roles in automation, robotics, and AI-driven systems.
- Mathematical modeling - System representation using block diagrams.
- PID controllers - Control strategies used in industrial applications.

A total of 33 students attended the session, gaining valuable insights into the importance of Mechatronics in modern industries and future career prospects. The lecture was highly informative and interactive, helping students understand the interdisciplinary nature of Mechatronics.

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Parent Meet at Yashoda Technical Campus: Strengthening the Parent- Teacher Bond

A Parent Meet was successfully conducted at Yashoda Technical Campus, department of mechanical Engineering, on 25th June 2022, from 12:30 pm to 2:30 pm. The event aimed to foster a healthy interaction between parents and teachers, ensuring better academic support for students.

Objectives of the Parent Meet:

- Strengthening the teacher-student-parent relationship through open discussions.
- Updating parents on their ward's Mid-Semester Examination Marks and overall attendance.
- Discussing students' academic performance and areas of improvement.
- Receiving valuable feedback and suggestions from parents.

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Guest lecture on Environment Preservation

Awareness Session

Under

Azadi Ka Amrit Mahotsav

As a part of celebration of Azadi ka Amrit mahotsav, Faculty of Engineering arranged a guest lecture on Environmental Preservation Awareness on Tuesday, 22/02/22.

Mr. Soham Kulkarni and Mr. Akshay Puranik from Sagar Mitra Abhiyaan presented the dangers caused by negligent disposal of plastic and its recycling. The students were informed about the work carried out by Sagar Mitra along with Swechhandi, V care and Robinhood army. Mr. Soham Kulkarni shared his thoughts about plastic accumulating in our oceans and on our beaches has become a global crisis. Billions of pounds of plastic can be found in swirling convergences that make up about 40 percent of the world's ocean surfaces. Plastics pollution has a direct and deadly effect on wildlife. Thousands of seabirds and sea turtles, seals and other marine mammals are killed each year after ingesting plastic or getting entangled in it. Sagar Mitra have solution on this waste plastic. Student took pledge about reducing the usage of plastic in day to day life. Director Dr. V. K. Redasani, Mr. R. D. Mohite, Dr. Mrs. R. P. Kulkarni and all the staff members of Engineering and Pharmacy alongwith Engg and pharmacy student were present for the lecture. Mr. P.P. Nimbalkar coordinated the activity. Mr. P. G. Borate concluded the program with vote of thanks.

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Digital Twin Technology: A New Era in Mechanical Engineering

Digital Twin Technology is revolutionizing the field of Mechanical Engineering by enabling real-time simulation, analysis, and optimization of physical systems. A digital twin is a virtual replica of a physical product, machine, or system that continuously receives real-world data through sensors. This allows engineers to monitor performance, predict failures, and improve efficiency without physical trials.

This technology is widely used in aerospace, automotive, and manufacturing industries, helping engineers enhance design accuracy, reduce maintenance costs, and optimize production processes. By integrating AI, IoT, and data analytics, digital twins are shaping the future of smart manufacturing and Industry 4.0, making mechanical systems more reliable, efficient, and cost-effective.

By,
PATIL AKSHAY BHIMRAO
TY Mech Student

Industry 4.0: The Future of Smart Manufacturing

Industry 4.0 is transforming Mechanical Engineering by integrating automation, artificial intelligence (AI), the Internet of Things (IoT), and big data analytics into manufacturing processes. This revolution focuses on smart factories, where machines communicate in real time, improving efficiency, reducing downtime, and enhancing product quality.

Key technologies in Industry 4.0 include cyber-physical systems, digital twins, robotics, cloud computing, and additive manufacturing (3D printing). These advancements enable predictive maintenance, remote monitoring, and intelligent decision-making, leading to cost-effective and highly efficient production.

As industries adopt Industry 4.0, mechanical engineers must develop skills in data analytics, automation, and smart system integration to stay ahead in this rapidly evolving field. This new era of intelligent manufacturing is reshaping the future of engineering and industrial development.

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BY,
AYARE ATISH RAJARAM
Final Year BTech