



**MECHANICAL ENGINEERING
DEPARTMENT
PRESENTS**

MECHTRIX

Session: 2024-25



Samridhi Sarwajanik Charitable Trust
Jhulelal Institute Of Technology
An Autonomous Institution



NAAC Accredited with "A+" Grade | AICTE Approved | ISO 9001:2015 Certified | Affiliated to RTM, Nagpur University | UGC2F

TABLE OF CONTENTS

	INSTITUTE VISION	01
	INSTITUTE MISSION	02
	MESSAGE FROM PRINCIPAL	03
	MESSAGE FROM HOD	03
	DEPARTMENT VISION MISSION	04
	PSO, PEO, PO	06
	MAGZINE COMITTEE	10
	MECHTRIX – STUDENT FORUM	11
	ISHRAE – PROFESSIONAL SOCIETY	12
	GUEST LECTURE / WORKSHOP / INDUSTRIAL VISIT	13
	STUDENT CORNER	21
	FACULTY CORNER	27



DR. NARENDRA BAWANE

Principal, JIT



MR. PRAKASH V. DHOPTE

HoD Mechanical

Principal Message

This magazine reflects the creativity of our students and faculty members by showcasing their ideas, projects, and technical knowledge. It highlights their ability to think beyond the classroom, nurture ingenuity, and bring forth new perspectives that inspire others.

HoD Message

This magazine stands as a testament to the innovative spirit of our students and faculty. It provides them with a platform to express their ideas, technical curiosity, and creative talents, while also showcasing their contributions and achievements in Mechanical Engineering.



INSTITUTE VISION AND MISSION VISION



To become an eminent institution through knowledge and research

MISSION

To produce world class engineers with academics and moral excellence who are not only equipped with cutting edge technology but also possess immense sense of social responsibility.

To inculcate awareness and acceptance of ethical values through co-curricular activities for overall personality development of students.





DEPARTMENT VISION AND MISSION

VISION



The Mechanical Engineering Department strives for making thorough professionals who are employable through quality education.



MISSION

To instill best technical knowledge in the students to face intellectual and career challenges.



To make the department a desirable place to study and work by providing opportunities to build and propagate knowledge.



PEO'S

(PROGRAM EDUCATIONAL OBJECTIVES)



- Excel in higher education by acquiring knowledge in mathematical, analytical and engineering principles.
- To develop the ability among students to analyze data and technical concepts in application of product design.
- To provide opportunity for students to work as part of team by working on various projects.
- To develop students with various soft skills to make them compatible for pursuing different careers in industries.





PSO'S

(PROGRAM SPECIFIC OUTCOMES)



- PSO 1- The student will be able to apply their knowledge in the field of engineering drawing, material sciences, fluid sciences and thermal engineering to solve engineering problems utilizing advanced technology.
- PSO 2-The student will be able to recognize, design, evaluate and solve engineering problems related to mechanical systems together with allied engineering streams.
- PSO 3-The student will be able to apply economics & managerial skills to enhance the productivity of industries and also implement an idea to set up an enterprise.





Engineering Graduates will be able to:

1. *Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.*
2. *Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.*
3. *Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.*
4. *Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.*
5. *Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.*





Engineering Graduates will be able to:

6. *The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.*
7. *Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.*
8. *Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.*
9. *Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.*
10. *Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.*
11. *Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.*
12. *Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.*



**MAGZINE
COMMITTEE**

Students Coordinator

Mr. Abhay Pardhi

Mr. Tushar Fulzele

Mr. Pranav Thoke

Mr. Mayank Mishra

Faculty Coordinator

Prof. Bhushan Deshmukh





STUDENT FORUM



About Forum

Mechtrix, the Mechanical Engineering Students' Forum, serves as a dynamic platform dedicated to the overall development of students beyond the classroom. It provides opportunities to enhance technical knowledge, practical skills, and professional competencies through workshops, seminars, industrial visits, and technical events.



INDIAN SOCIETY OF HEATING, REFRIGERATING
AND AIR CONDITIONING ENGINEERS



About ISHRAE

ISHRAE is dedicated to knowledge sharing, innovation, and professional growth in the field. Our college proudly hosts an ISHRAE Student Chapter, providing students with valuable opportunities to learn, collaborate, and engage with industry experts while building their technical and leadership skills

GUEST LECTURE

MECHTRIX

10 July, 2024

MechTrix



GUEST LECTURE ON ROLE OF MECHANICAL DESIGN ENGINEER

The session aimed to bridge the gap between academic learning and industrial expectations.

Mechanical engineers serve as a crucial link between conceptual design and the actual functioning of industrial machinery and systems. Their multi-disciplinary role demands technical expertise, problem-solving skills, and a deep commitment to efficiency, safety, and sustainability.

Mr. Ravindra Bopalkar,
IFS Academy Pune
was organized on 10-07-2024

GUEST LECTURE

MECHTRIX

31 July 2024

MechTrix



GUEST LECTURE ON COMPUTER AIDED DESIGN (CAD) AND MECHANICAL, ELECTRICAL, AND PLUMBING (MEP)

The lecture aimed to bridge theoretical knowledge with practical industry applications, highlighting how CAD tools improve efficiency, precision, and coordination in MEP engineering. He began by explaining the role of CAD in modern engineering, emphasizing its advantages over traditional manual drafting methods.

Mr. Swapnil Udupurkar,
Director Edverciity CADD Centre
was organized on 31-07-2024

GUEST LECTURE

MECHTRIX

25 July, 2024

MechTriX



GUEST LECTURE ON ADVANCE BIM APPLICATION AND EMERGING TECHNOLOGY

The lecture aimed to familiarize participants with advanced BIM features, its integration with other emerging technologies, and its real-world applications in project planning, execution, and management.

In this session, he explains that Mechanical engineers are involved in almost every aspect of human existence and welfare, including machines, cars and other vehicles, aircraft, power plants, automobile parts, and manufacturing plants etc.

Mr. Pravin Jadhav,
Founder, CEO,
RPJ BIM SOLUTION Nagpur
was organized on 25th July 2024

GUEST LECTURE

MECHTRIX

25 July, 2024

MechTrix



GUEST LECTURE ON THE FUTURE OF CAD IN MANUFACTURING

The session aimed to bridge the knowledge gap between theoretical classroom learning and the practical expectations of the industry, especially in the context of Industry 4.0 and digital transformation in manufacturing

The lecture was highly informative, interactive, and aligned with current industry needs. Mr. Swapnil Udpurkar provided valuable insights that bridged academic knowledge with practical applications in the manufacturing sector.

Mr. Swapnil Udpurkar,
Head Edverciity,
CADD centre Sadar, Nagpur
was organized on 08 Jan, 2025

GUEST LECTURE

MECHTRIX

25 July, 2024

MechTriX



GUEST LECTURE ON ENGINEERING TRENDS & OPPORTUNITIES: CAREER DEVELOPMENT & RESEARCH POTENTIAL

The session aimed to bridge the knowledge gap between theoretical classroom learning and the practical expectations of the industry, especially in the context of Industry 4.0 and digital transformation in manufacturing.

The lecture was highly informative, interactive, and aligned with current industry needs. Mr. Swapnil Udpurkar provided valuable insights that bridged academic knowledge with practical applications in the manufacturing sector.

Mr. Swapnil Udpurkar,
Head Edverciity,
CADD centre Sadar, Nagpur
was organized on 08 Jan, 2025

INDUSTRIAL VISIT

MECHTRIX

24 September, 2024

MechTriX



Industrial Visit at MSRTC Central Workshop

This Industrial visit helped students to understand sheet metal work for Bus body building and students also got the knowledge of Engine Testing this practical knowledge helps them to understand different sheet metal working process their joining. Also students has got brief knowledge about Reconditioning and Testing of 4 stroke diesel engines.

Shri Prashant Raut
(Production Engineer)
Hingna MIDC, Dist Nagpur.
Was organized on 24 September, 2024

INDUSTRIAL VISIT

MECHTRIX

12 November, 2024

MechTrix



Industrial Visit at High Tech Poly Plast Nagpur Pvt Ltd

This Industrial visit helped students to observe and understand different plastic moulding processes and machines.

In this visit student saw the actual plastic moulding process for manufacturing of HDPE Pipes.

Shri U.R. Rao guided the students about different moulding processes.

Shri U.R. Rao
(Production Manager)
Hingna MIDC, Dist Nagpur.
Was organized on 12 November, 2024

INDUSTRIAL VISIT

MECHTRIX

06 March, 2025

MechTrix



Industry Visit at Siemens Centre of Excellence

This Industrial visit helped students to know about different earth moving equipment their parts and working also students learnt about opportunities available in industries.

In this visit student saw the actual Engines used in different heavy equipment.

Mrs. Labhshree madam and her coordinators guided students about different Robots advance manufacturing processes, machines. .

Mrs. Labhshree
VNIT, Nagpur
Was organized on 06 March, 2025

STUDENT CORNER



Ms. Diksha Soyam

ME, JIT, Nagpur

STUDENT CORNER

POEM

We are the ones who speak the language
of machines,
Finding emotion even in bolts and springs.
The sound of a lathe feels like music to our ear,
And workshop dust is the luxury we cheer.

Our friends stay tight like the strongest gear,
Even under stress, they never disappear.
Grease on our hands is a badge of pride,
Failures are lessons, that walk by our side.

Love for us is mechanical too,
My heart's the engine, its fuel is you.
With your care, my system runs fast,
Without you, my engine may never last.

Our attitude runs high like a turbo boost,
In every challenge, we stand tall and true.
Civil, Computer, Electrical shine bright,
But Mechanical Engineers are the Kings
of might!

Name :- Tushar Dilip Fulzele
- ID :- VGF23ME028
SEM :- V

Mr. Tushar Fulzele
ME, JIT, Nagpur

STUDENT CORNER

Achievements

Intra College



Mr. Nikita Gajbiye

4th Sem ME



Mr. Kunal Yadav

8th Sem ME

Intra College

STUDENT CORNER

Achievements

Inter College



Mr. Manmeet Singh Saimi

4th Sem ME



Mr. Abhishek Ahire

4th Sem ME

Inter College

Inter College

STUDENT ACHIVEMENT

- Mr. Athava Bansod
4th Sem ME



- Mr. Ayan Khan
4th Sem ME



- Mr. Dimple Meshram
4th Sem ME



- Mr. Nikita Gajbhiye
4th Sem ME



- Mr. Nitin Rabde
4th Sem ME



- Mr. Pravin Kate
4th Sem ME



FACULTY CORNER

Paper Published



Mr. Bhushar Deshmukh
Assistant Professor
ME, JIT Nagpur



Mr. Prakash Dhopte
Assistant Professor
ME, JIT Nagpur



Thank You

**Thank you for your support — it
means the world to us!**