# NEWS LETTER MechChronical - S-2k23



# Jhulelal Institute Of Technology

An Autonomous Institution

AC Accrediated with "A+" Grade AICTE Approved ISO 9001:2015 Certified Affliated to RTM, Nagpur University UGC2.



Welcome to the **Department of** Mechanical Engineering Newsletter, a platform dedicated to the achievements, showcasing activities, and innovations of our students, faculty, and alumni. This newsletter aims to keep everyone updated with the latest developments academics, in research, industry collaborations, and departmental events.

#### **Editorial Board**

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Student Editor
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Student Editor

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Mr. Prakash V. Dhopte HOD, Mech. Dept.



Mr. Mahesh Sadhwani

- Governing Council Member – RST Cancer Hospital, Nagpur
- IPP BAI, Nagpur
- Ex President –
   Vidarbha Contractors
   Association, Nagpur
- MD Nanik Group (Contractors & Builders), Nagpur
- VP CREDAI Nagpur Metro

#### **CHAIRMAN'S MESSAGE**

Jhulelal Institute of Technology is one of the leading educational institutes in central India. Our initiatives are mainly based on creating strong academic foundation for social, cultural, economic & technological development, which in turn, shall establish benchmark in academic excellence and shall prepare our students to face career challenges successfully.

We, at JIT, are committed to imbibe in our students the benchmark to become a superlative human being, helping them to lead life of dignity & prosperity. The institution through a team of dedicated & highly qualified faculty strives to widen the students' horizon of learning, helping them to achieve their goals.

In a short span of its existence, the college has achieved many university merits. The placement scenario of the college has been commendable & many premier companies have visited our college and recruited JIT students.

JIT has 5 international conferences till now been hosted & we are leaving no stone unturned to impart quality technical education to our students. I am extremely pleased to welcome you, to be a part of our fast expanding family & pray the almighty to bless you with a great future.



Mr. Virendra Kukreja Secretary

- Politician
- Former Health
  Committee Chairman
  - NMC
- Former Standing
  Committee Chairman
  - NMC
- Former Corporator Jaripatka, Nara (Nagpur)
- Work for BJP

#### SECRETARY MESSAGE

Well known for inculcating high moral values in its students, JIT has now turned out to be a crucial platform in the career building of innumerable of its students. An institution of great repute for providing quality technical education, the college has been successful in attracting major recruiters to its campus, for their placement drive. The effort taken by hardworking and high quality staff members has made JIT an ideal place for learning.

The innovative teaching learning methods adopted in JIT have helped the students to apply out of the box thinking required today to become successful technocrats. JIT through various activities of social relevance has been successful in imbibing the need of becoming a true human being along with becoming a thorough professional. The students are made to feel at home through extensive efforts taken by the institution molding them to become a responsible citizen. I wish you all the best for a great future.



Shri. Jayprakash Sahajramani Treasurer, SSCT

President, Nagpur Fly
 Ash Bricks
 Manufacturers
 Association

#### TREASURER'S MESSAGE

JIT, since its establishment has always work for the well being & thorough grooming of its students. This is done through extensive counseling by the teacher-mentors. This helps them to evaluate their progress, work on their weaknesses guiding them to success. The institute is administered successfully, as "Students First" philosophy is strictly followed, which makes the staff & management easily accessible to our stakeholders.

JIT has also tie-ups with eminent companies providing opportunity for internship, industry visits and various training programmes and IIT certifications. My best wishes to all JIT aspirants for a wonderful career & great future ahead.



Mr. Pramod Pampatwar Director Technical

- B.E (Mechanical)
- MBA (Finance)
- Ph.D. Pursuing
- Director VNIT Alumni
- Executive Director VED
- Chairman –
   Vidharbha Region,
   Engg College
   Management
   Association,
   Maharashtra
- Executive Director AMMI, Maharashtra

#### DIRECTOR TECHNICAL MESSAGE

I'm extremely pleased to introduce JIT to all aspiring Engineers. Since the inception of JIT, we have aimed at developing competent technocrats committed to excellence and groomed them to understand their social responsibilities also. To achieve this aim, we have selected best of the faculty members delivering their quality inputs & thus making our students a cherry picked group, for the recruiters.

The institution holds a glorious feedback & a proven track record of running institutions in the field of Engineering, Management and M.Tech. courses, successfully. The kind of training provided to the students not only trains our students for technical superiority, but also prepares them to face global challenges. Various awards and accolades bestowed upon us depict a lot about our great institution.

Having MOU with industries, Institutions and Govt. organizations is our priority. Students are enriched with these interactions and this certainly helps them fetch outstanding placements. Mentoring done for specific companies specialized training helps the students to get good jobs.

JIT's core values encompass integrity, leadership, excellence, transparency, and accountability. Research and teaching are conducted in an environment of academic freedom and honesty, adhering to the highest ethical standards. Leadership development is emphasized for faculty, students, and staff, cultivating critical thinking, creativity, and lifelong learning



Dr. Narendra Bawane Principal

- B.E. from Nagpur University in 1987
- M. Tech. in 1992 from IIT, New Delhi
- Ph. D. in 2006 from VNIT, Nagpur

#### PRINCIPAL'S MESSAGE

JIT is committed to the holistic development of students, nurturing their latent talents, ingenuity and creativity and instilling sense of discipline and morality. Our aim not prepare our students for university examination but to ensure their 360-degree overall development. Our emphasis is to provide outcome based education that will make our students employable and help them to become lifelong learner. Our entire teaching and non-teaching staff as well as Management are committed to the welfare of the students to help them in exploring and enriching excellence within themselves.



Mr. Prakash V. Dhopte HOD, Mech. Dept.

#### MESSAGE FROM HOD

Welcome to the Department of Mechanical Engineering at Jhulelal Institute of Technology, Nagpur. We have started our journey in the year of 2014 to provide beneficial service to the society.

Our department offers science-based engineering curriculum. The primary focus of our curriculum is to impart technical knowledge to students; promote their problem solving skills and innovation of new technologies. The course contents are periodically updated through industrial training, Workshops, industrial visits, internship, Guest lectures, for introducing new scientific and technological developments. Our outstanding faculty is committed towards excellence in teaching and research. We genuinely care about our students and their future. We promote student awareness for life-long learning and to introduce them to professional ethics and codes.

For the overall development of the student, Department of mechanical engineering formulated a Mechanical Engineering Students' association i.e. MECTRIX. Various activities through this forum which provides Platform to student to gain knowledge and interest with students and staff of other college/administrative as well as Industry Engineers. Students have taken part in various competitions and won National Level top positions in SAE competitions. The extensive efforts taken by the department to shape the future of the students has not only resulted in consistent top match performance by the students in the University Examinations of all the semesters, but has also facilitated the students to achieve top positions in various National level competitions. Along with all this as a part of social cause, skill based education is also provided to the students of nearby villages with the help of our fully equipped laboratories and workshops.

#### **VISION & MISSION OF INSTITUTE**

# **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.

# **VISION & MISSION OF DEPARTMENT**

# **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.

# **PROGRAM OUTCOMES (PO's)**

1	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals and		
*	an engineering specialisation for the solution of complex engineering problems		
2	Problem analysis: Identify, formulate, review research literature, and analyses complex engineering		
-	problems reaching substantiated conclusions using first principles of mathematics, natural sciences and		
	engineering sciences		
3	<b>Design / development of solutions :</b> Design solutions for complex engineering problems and design		
	system components or processes that meet the specified needs with appropriate consideration for public		
	health and safety, cultural, societal and environmental considerations		
4	Conduct investigations of complex problems: Use research—based knowledge & research methods		
	including design of experiments, analysis & interpretation of data and synthesis of information to provide		
	valid conclusion		
5	Modern tool usage: Create, select and apply appropriate techniques, resources, modern engineering and		
	IT tools, including prediction and modelling, to complex engineering activities, with an understanding of		
	the limitations		
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	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the		
	engineering practice		
9	<b>Individual and team work :</b> 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 the 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		
10	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		

### PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

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

# PROGRAM SPECIFIC OUTCOMES (PSO's)

- **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.

#### **FACULTY PROFILE 2022-23**

Sr. No.	Faculty Name	Designation	Email - Id
1	Prof. Prakash Dhopte (HOD)	Assistant Professor	p.dhopte@jitnagpur.edu.in
2	Prof. Amar Kawale	Assistant Professor	a.kawale@jitnagpur.edu.in
3	Prof. Safal Shambharkar	Assistant Professor	s.shambharkar@jitnagpur.edu.in
4	Prof. Sanjay Sajjanwar	Assistant Professor	s.sajjanwar@jitnagpur.edu.in
5	Prof. Rahul Waghmare	Assistant Professor	r.waghmare@jitnagpur.edu.in
6	Prof. Bhushan Deshmukh	Assistant Professor	b.deshmukh@jitnagpur.edu.in
7	Prof. Anurag Karande	Assistant Professor	a.karande@jitnagpur.edu.in
8	Dr.Vandita Shahu	Assistant Professor	v.shahu@jitnagpur.edu.in
9	Prof. Pravin Petkar	Assistant Professor	p.petkar@jitnagpur.edu.in
10	Dr. Ashish Thakre	Associate Professor	a.thakre@jitnagpur.edu.in

# **FACULTY PARTICIPATION 2022-23**

Sr. No.	Name of Faculty	Publication / Conference /Training / STTP/ FDP/ Workshop / Seminar / Others
1.	Prof. Prakash Dhopte, Prof. Pravin Petkar	"Automobile Waste Heat Utilization using TEG", International Journal of Emerging Technologies and Innovative Research (IJETIR)Volume 5, Issue 4, April 2025
2	Prof. Prakash Dhopte	"REVIEW ON ENERGY GENERATION FROM WASTE HEAT OF AUTOMOBILE USING TEG", © 2025 IJRAR May 2025, Volume 12, Issue 2 www.ijrar.org (E-ISSN 2348-1269, P- ISSN 2349-5138)
3	Dr. Vandita T Shahu	"Design and Development of Nitinol Engine", International Journal of Emerging Technologies and Innovative Research (IJETIR) Volume 5, Issue 4, April 2025
4	Prof. Safal Shambharkar, Prof. Bhushan Deshmukh	"Design and Fabrication of Cane Cutting Machine", International Journal of Emerging Technologies and Innovative Research (IJETIR) Volume 5, Issue 4, April 2025
5	Prof. Amar Kawale, Prof. Anurag Karande	"Design of Refrigerator Using Peltier Module", International Journal of Emerging Technologies and Innovative Research (IJETIR) Volume 5, Issue 4, April 2025
6	Prof. Sanjay Sajjanwar	"Development and Fabrication of Pellet Making Machine from Paper Waste", International Journal of Emerging Technologies and Innovative Research (IJETIR) Volume 5, Issue 4, April 2025

# **STUDENT'S PARTICIPATION 2022-23**



Recent Trends In HVAC And Energy Efficiency have organized by Mechtrix in association with ISTE chapter on 18<sup>th</sup> April 2023

# **MECHTRIX & ISHRAE ACTIVITIES**



**'Seminar on Role & Responsibility of CAD Engineer' on 28<sup>th</sup> Feb 2023** 



A Guest Lecture on "Career Guidance in Mechanical Engineering Software" on 11/03/23



Recent Trends In HVAC And Energy Efficiency have organized by Mechtrix in association with



'Great Indian Scholarship Fest CADD Quest 2023' have organized by Mechtrix in association on 28<sup>th</sup> Feb 2023



Department forum Mechtrix organized Quantitative Aptitude Teston 15<sup>th</sup> March 2023