NEWS LETTER
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Samridhi Sarwajanik Charitable Trust

Jhulelal Institute Of Technology

An Autonomous Institution

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About News Letter

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

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INSIDE…...

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Dr. Narendra Bawane
Principal

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Vice-Principal and Dean R&D

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.

Dr. Hemant Asrani
Dean Admin and Director

- Masters Degree in Conservative Dentistry (Govt. Dental College)
- BDS (Govt. Dental College)

DEAN ADMIN AND DIRECTOR MESSAGE

Shaping the Future with Integrity and Excellence, Jhulelal Institute of Technology (JIT) in Nagpur is a premier educational institution renowned for its academic excellence and innovative teaching methodologies. Established with the mission to provide top-notch management education, JIT offers a range of undergraduate and postgraduate programs. The institute has state-of-the-art facilities and a highly experienced faculty dedicated to nurturing future leaders. Our institute is more than just an academic institution; it is a community where ideas flourish and potential are realized.

We try to make & cater best engineers to our Nation. JIT emphasizes holistic development, encouraging students to engage in extracurricular activities and industry interactions. Its commitment to quality education and research makes JIT a preferred choice for aspiring professionals. The institute's primary objective is to instill a scientific temper and a spirit of inquiry in students and teachers, fostering a value-based yet professional educational system where innovation thrives.

We believe that education extends beyond the classroom. JIT is committed to making significant contributions to society through pioneering education and effective industry-institute interactions. The institute aspires to be a role model in higher education, becoming the most preferred choice for students, faculty, and industry. This vision is underpinned by a robust quality policy focused on nurturing talents and skills in technical education, fostering self-discipline, and developing competencies to meet the challenges of globalization.

Mr. Pramod Pampatwar
Director Technical

- B.E (Mechanical)
- MBA (Finance)
- 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.

HOD MESSAGE

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. 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.

SALIENT FEATURES

- Experienced, Qualified & Research Oriented Faculty
- Modern and Well-Equipped Laboratories
- NAAC Accredited for 5 Years with **A+** Grade
- Project Based Learning
- Teacher Guardian Scheme
- Well-equipped laboratories
- Research Facilities
- Wi-Fi Campus

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.

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	**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 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	**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 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 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

MECHANICAL ENGINEERING: SHAPING A SUSTAINABLE FUTURE

MECHANICAL ENGINEERING, once the domain of tools and machinery, has evolved into a dynamic field shaping a brighter future for humanity. Driven by scientific advancements and technological breakthroughs, it encompasses a wide range of specializations, from composite materials and mechatronics to renewable energy and robotics.

Robotic arm being used to assemble a car (www.wired.com)

Mechanical engineers are at the forefront of developing composite materials with exceptional strength, lightness, and flexibility, pushing the boundaries of performance and efficiency. This is evident in the development of lighter, stronger airplanes and more fuel-efficient vehicles.

The field of mechatronics, which merges mechanical and electronic systems, is transforming industries and revolutionizing daily life.

ROBOTICS, a key aspect of mechatronics, is impacting various sectors, from manufacturing and healthcare to transportation and logistics.

Mechanical engineers are driving automation and intelligent machines, leading to a new era of efficient and cost-effective manufacturing. This is crucial for increasing productivity and competitiveness in a globalized world.

From sleek consumer electronics to life-saving medical devices, mechanical engineers are designing products that enhance our lives and address global challenges. Their creativity and innovation improve our daily experiences and contribute to advancements in healthcare, communication, and transportation.

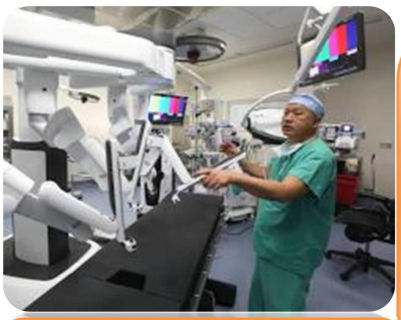
Wind turbine (windsystemsmag.com)

The fight against CLIMATE CHANGE is fueled by the efforts of mechanical engineers working in the renewable energy sector. They are developing sustainable energy solutions, such as solar and wind power systems, to reduce our reliance on fossil fuels and create a cleaner future.

Mechanical engineers are also shaping the landscape of modern society, from infrastructure and transportation to smart cities. They are building bridges, tunnels, and other essential infrastructure, while also developing sustainable urban environments that promote well-being and prosperity.

Self-Driving Car (valientemott.com)

A CAREER in mechanical engineering offers a vast array of exciting opportunities. You can delve into thermal engineering to design efficient energy systems or work in manufacturing to optimize production processes. DESIGN ENGINEERS shape the future with innovative product designs, while aerospace engineers explore the frontiers of aviation by developing the next generation of aircraft and space vehicles.



Robot Assisting in Surgery (www.zanesvilletimesrecorder.com)

The field of ROBOTICS provides a unique opportunity to design and develop intelligent robots that redefine interaction and automation. This holds immense potential for various sectors, including healthcare, manufacturing, and disaster relief.

The Department of Mechanical Engineering provides a stimulating environment where students can learn, explore, and contribute to groundbreaking research. Our highly qualified faculty offer expert guidance and mentorship, ensuring students receive the highest quality education.

STATE OF THE ART laboratories provide students with the tools and resources to experiment, innovate, and translate theory into practice. This hands-on experience is crucial for preparing students for successful careers in the field.

Students actively participate in funded research PROJECTS, contributing to the advancement of knowledge and tackling real-world challenges. This research experience equips them with the skills and knowledge needed to become future leaders in the field.

Beyond the classroom, students have the opportunity to participate in a variety of extracurricular ACTIVITIES, fostering teamwork, leadership, and communication skills. These activities provide valuable learning experiences and help students develop their social and professional skills.

Extension activities allow students to apply their knowledge and skills to community development projects. This fosters A SENSE OF SOCIAL responsibility and allows students to make a positive impact on the world around them. Through participation in prestigious competitions such as SAE BAJA and ROBOCON, students push their limits, fostering creativity, innovation, and teamwork. These competitions provide valuable learning opportunities and challenge students to think critically and solve complex problems.

The Department of Mechanical Engineering is committed to nurturing the next generation of leaders in the field. We empower our students to shape a sustainable and prosperous future for all, ensuring that the future of mechanical engineering is bright and impactful.

FACULTY PROFILE 2024-25

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

STUDENT'S PARTICIPATION 2024-25

Sr. No.	Name of Student	Publication / Conference /Training / STTP/ FDP/ Workshop / Seminar / Others
1.	Nehal Katkar, Sarang Milmile, Salim Quereshi, Mohd. Mudasir Jafar, Mohd. Shahzad,	"Automobile Waste Heat Utilization using TEG", International Journal of Emerging Technologies and Innovative Research (IJETIR)Volume 5, Issue 4, April 2025
2	Sarang Milmile , Salim Quereshi, Mohd. Shahazad , Mohd. Muddasir Zafar	"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	Kunal Yadav, Abhay Pardhi, Akash Bhongade, Himanshu Renke, Aatif Khan,	"Design and Development of Nitinol Engine", International Journal of Emerging Technologies and Innovative Research (IJETIR) Volume 5, Issue 4, April 2025
4	Arshad Sheikh, Nikhil Kohad, Prem Sarkar, Hassan Pathan, Abu Talib,	"Design and Fabrication of Cane Cutting Machine", International Journal of Emerging Technologies and Innovative Research (IJETIR) Volume 5, Issue 4, April 2025
5	Priyanshu Khobragade, Sayd Numen, Ayush Meshram, Pradip Saroj, Pramendra Thakre,	"Design of Refrigerator Using Peltier Module", International Journal of Emerging Technologies and Innovative Research (IJETIR) Volume 5, Issue 4, April 2025
6	Syed Musaddique, Pravin Kate, Shanawaz Khan, Fardeen Ansari, Pranay Wase,	"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

MECHTRIX & ISHRAE ACTIVITIES

Guest lecture on Role of Mechanical Design Engineer Mr. Ravindra Bopalkar, IFS Academy Pune

Guest Lecture on Advance BIM application and Emerging Technology Mr. Pravin Jadhav, Founder, CEO, RPJ BIM SOLUTION Nagpur

Guest Lecture on Computer Aided Design (CAD) and Mechanical, Electrical, and Plumbing (MEP) by Mr. Swapnil Udapurkar, Director Edverciity CADD Centre, Nagpur

Students Participation