NAAC Accredited

Vidarbha Bahu-uddeshiya Shikshan Sanstha's

TULSIRAMJI GAIKWAD-PATIL College of Engineering & Technology

An Autonomous Institute

DTE CODE 4151

Innovation begins with information

DEPARTMENT OF MECHANICAL ENGINEERING

NEWSLETTER

VOLUME 5 ISSUE 2

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Tulsiramji Gaikwad-Patil College of Engineering and Technology

Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) was established in the year 2007 by Vidarbha Bahu- Uddeshiya Sheshan Sanstha (VBSS), a registered society. It is a self- financed Private Engineering College, which is affiliated to Rashtrasant Tukadoji Maharaj Nagpur University (RTMNU) Nagpur and is approved by All India Council for Technical Education, New Delhi. Also, college is approved by Directorate of Technical Education (DTE), Mumbai, and Maharashtra State. The Institute is Accredited with A+ (3.32CGPA) by NATIONALASSESSMENTAND ACCREDITATION COUNCIL (NAAC) and NBA. An Autonomous Institute affiliated to RTM Nagpur University, Nagpur.

VISION

- To emerge as a learning Center of Excellence in the National Ethos in domains of Science, Technology and Management

MISSION

- To strive for rearing standard and stature of the students by practicing high standards of professional ethics, transparency, and accountability.
- To provide facilities and services to meet the challenges of Industry and Society.
- To facilitate socially responsive research, innovation, and entrepreneurship.
- To ascertain holistic development of the students and staff members by inculcating knowledge and profession as work practices.

VISION

- To emerge as a premier centre in the Field of Mechanical Engineering Education and Produce Competent Engineers.

MISSION

- To Impart Quality Technical Education Through Effective Teaching-Learning Process
- To Provide a Better Environment to Encourage Innovation and Entrepreneurship.
- To Strength industry and institute interaction to meet challenges of society and industry.
- TO Ensure Overall Development of Students and Staff Members by Inculcating Knowledge and Professional Ethics.

PEOs

Program Educational Objectives (PEOs) of the Department

- Demonstrate essential technical skills to identify analyze and solve problems and design issues in mechanical engineering.
- Analyze the complex problems in the field of mechanical engineering by using modern tools.
- Apply mechanical engineering concepts for the betterment of society and environment.
- Develop professionals having administrative and managerial skills for mechanical engineering and allied industries.
- Demonstrate the attributes of mechanical engineering in lifelong learning to contribute towards societal needs.

PSOs

Program Specific Outcomes (PSOs) of the Department

- Apply the knowledge to work professionally and ethically in Thermal, Design, production and Manufacturing areas of Mechanical engineering.
- Analyze and design mechanical components and its processes to meet the societal needs.
- Apply Engineering and Management principles to work professionally in the industry or as an entrepreneur.

Management

Dr. Mohan Gaikwad - Patil
Chairman, Gaikwad -Patil Group

With more than twenty years of experience in education system to his credit, Established the Gaikwad-Patil Group of Institutions in Nagpur to cater to the quality education needs of the youth in Vidarbha. His early experience of teaching in an engineering college made him acutely aware of the dissonance between engineering education in the country and the requirements of the industry. He therefore began with a dream of starting an engineering college that equips students with knowledge, skills and attitudes relevant to the industry. That dream has manifested today in the form of two engineering colleges, well known in the region for their constant striving to impart quality and industry-relevant education to their students. Hardly in his early forties, Dr. Gaikwad is the young and dynamic face of the Group. His contagious enthusiasm and unflagging drive is truly inspiring.

Mr. Akash Gaikwad-Patil
Vice Chairman, Gaikwad-Patil Group

In a world brimming with challenges, the need for brilliant engineers who can think critically, solve problems creatively, and adapt to a rapidly evolving technological landscape has never been greater. At TGPCET, we are committed to providing an education that goes beyond textbooks. Our curriculum is meticulously crafted to equip students with the technical expertise, soft skills, and design thinking abilities necessary to thrive in the ever-changing engineering landscape. We believe in nurturing well-rounded individuals with a strong foundation in ethics, social responsibility, and a passion for making a positive impact on the world. Our state-of-the-art facilities, coupled with a dedicated and experienced faculty, provide a stimulating learning environment that ignites curiosity and encourages exploration. We don't just produce engineers; we empower future leaders, innovators, and entrepreneurs who will shape the world of tomorrow. We are confident that our graduates will be at the forefront of technological advancements, tackling global challenges, and building a future brimming with possibilities.

Dr. Anjali Patil-Gaikwad
President, Gaikwad-Patil Group of Institutions

"Shaping Minds, Building Futures: Welcome to the Engineering Innovation Hub." "Welcome to TGPCET, a premier institution dedicated to nurturing exceptional engineers who can shape the world of tomorrow. Here, we believe in cultivating a stimulating learning environment that fosters creativity, critical thinking, and a passion for innovation. Our vision is to provide a holistic learning experience that equips you with the technical expertise, leadership skills, and innovative thinking needed to thriven dynamic industry. With a rich legacy of academic excellence, we offer adverse range of engineering and management programs designed to equip you with the knowledge, skills, and experiences needed to thrive in the ever-evolving engineering land scape. Our dedicated faculty, state-of-the-art facilities, and strong industry partnerships ensure you receive a well-rounded education that prepares you for success in your chosen field. We invite you to join our vibrant community and embark on a journey of excellence."

Management

Dr. Sandeep Gaikwad
Treasurer, Gaikwad-Patil Group of Institutions

"Creating a Brighter Tomorrow, One Investment at a Time: Your Pathway to Engineering Excellence. The essence of life is to live a life for others and die for a noble cause. We express our gratitude for receiving an opportunity to serve the nation. We have a crystal-clear vision of enlightening the student brain with a sound and technology-rich academic curriculum. We pledge to ensure that the students will not only progress in their respective fields but will also become responsible citizens by abiding by the rules and will live disciplined life. Our college has state-of-the-art facilities for teaching, research and development. The student's who have passed out of our college have already proved their mettle in various fields. I personally appeal to all the students to make use of the facilities here and improve their skills to have a glorious career ahead.

Dr. P. L. Naktode
Principal

It gives me immense pleasure and pride in welcoming you to Tulsiramji Gaikwad-Patil College of Engineering & Technology, one of the rapidly growing institutions in Vidarbha, dedicated to fostering technical education in the region. The vision of our institution is to empower youths and to produce technically skilled manpower with very high moral values that are not only employable but are also capable of creating employment for masses. Our mission is to provide outcome-based education by providing all necessary inputs, facilities and environment to empower our students in all possible ways. We understand that co-curricular and extra-curricular activities help in enhancing ones personality. This institution provides an environment for nurturing the sea activities so that young men and women get an opportunity to upgrade their skills and show cases their talent. To strengthen the wings of our students we have dynamic and dedicated workforce. Tulsiramji Gaikwad-Patil College of Engineering & Technology is committed to employing, developing and retaining the best teachers.

Dr. Pragati Patil
Vice Principal

Albert Einstein said," Education is not about learning off acts but training young minds to think." There is a big difference between cramming gup facts and learning them so that they can be applied in productive ways. At TGPCET, we try to work towards holistic development of our students by providing them the tools and experiences that encourage our students to think. The aim is to create empowered minds so that students are able to decide what is good for them, differentiate between right and wrong, choose opportunities that help build them up and enable them to live in harmony with all existence. As the Vice Principal, I am delighted that the institute's value s align with my own personal values, including the importance of trust, respect, innovation and a sense of community.

From the HOD's Desk

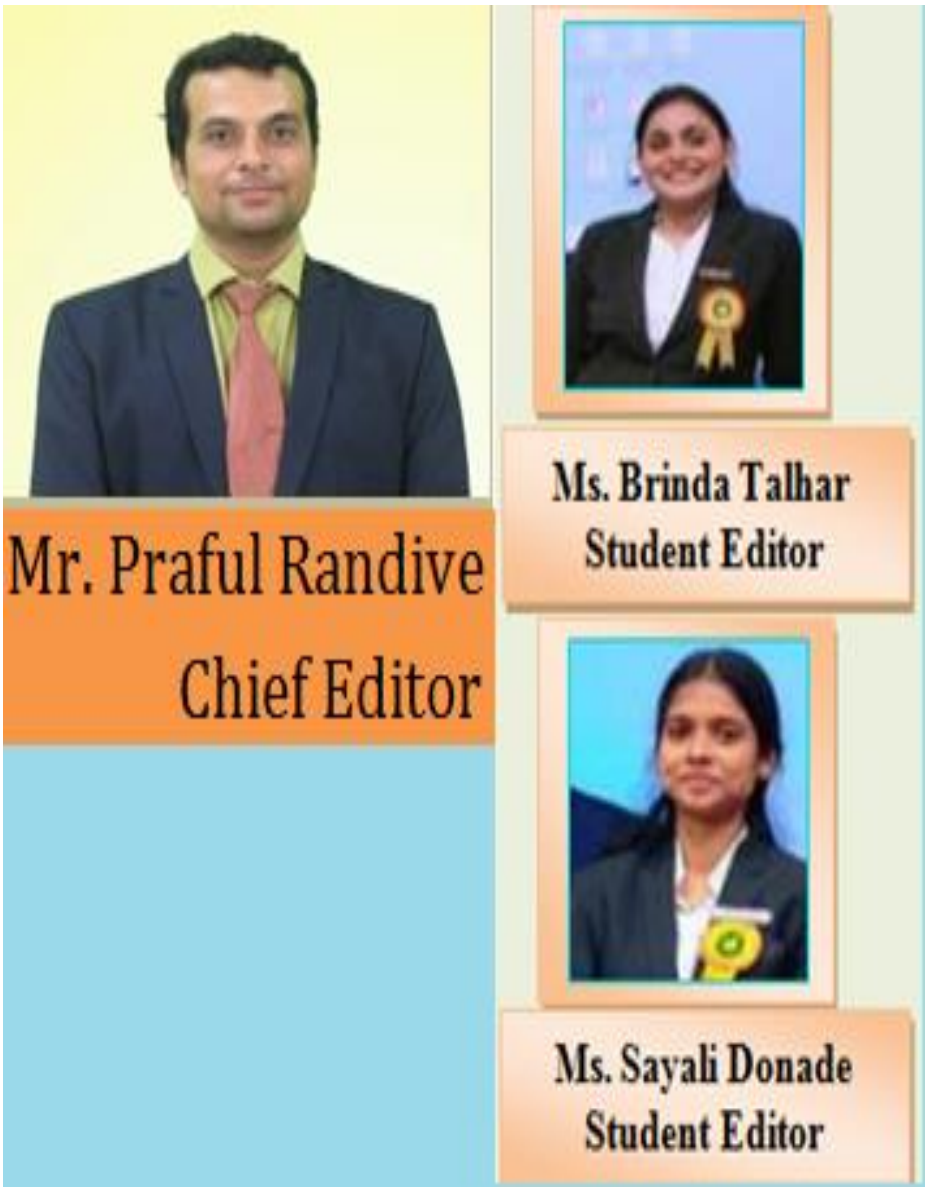
Dr. Vijay Talodhikar
Head of Department

"The function of education is to teach one to think intensively and to think critically. Intelligence plus character – that is the goal of true education."
—Dr. Martin Luther King Jr.

I would like to reiterate how proud I am to be part of such a vibrant and dedicated community within the Department of Mechanical Engineering. Our journey since our establishment in 2011 has been marked by growth, innovation, and a relentless pursuit of excellence. As we look forward to the next semester, let us carry the momentum we have built and continue to support one another in our academic and professional endeavors.

I encourage each of you to remain curious, collaborative, and committed to pushing the boundaries of what is possible in our field. Together, we can tackle the challenges of the future and make meaningful contributions across various industries. Thank you for your continued enthusiasm and engagement. I look forward to celebrating our future achievements and witnessing the impact we will undoubtedly make in the world of Mechanical Engineering.

Editorial Board



Industrial Visit Index

Sr. No	Semester	Name of Industry	Date of Visit	Name of Subject mapped with industry	Total Number of student present	PO-PSO mapped
1	IV & VI	KEC International Ltd. Nagpur	13-01-2025	Basic Electronic and Communication & Mechatronics	50	PO1-3,PO2-3,PO3-3,PO5-3,PO9-3,PO12-3,PSO3-3
2	IV & VI	Koradi Thermal Power Station Nagpur,	31-01-2025	Energy Conversion and Engineering Thermodynamics	60	PO1-3,PO3-3,PO5-3,PO10-3,PO12-3,PSO3-3
3	VI	Tata Advanced System Nagpur	12-02-2025	BME3601;Mechantronic & Automobile Engineering	33	PO1-3,PO2-3,PO3-3,PO5-3,PO10-3,PO11-3,PO12-3,PSO3-3

KEC International Ltd. Nagpur

Mr. Raman Badge, Assistant Manager, Trainer In-charge at KEC International Ltd. provided valuable

Students seeing live streaming for testing power transmission testing process

Aim: To conduct Industrial visit for student to develop into professional catering to industry centric technical skills.

Objective:

- To provide students with practical exposure and hands-on experience in the field of power transmission and distribution,
- To familiarize them with the latest technologies and industry practices.
- Quality Standards: Learn about the quality standards and certifications required in the industry, and how they are implemented and maintained.
- Safety Protocols: Understand the importance of safety protocols in an industrial environment and observe their practical application.
- Environmental Impact: Gain awareness of the environmental considerations and sustainable practices adopted by the industry.

Outcome of the Visit:

1. Student understand the practical applications of Basics of Electronic and Mechatronics
2. Students emphasis on *PO1,PO2,PO3,PO5 and PO12* due to the technical and Interdisciplinary nature of Mechatronics
3. During Visit Mr. Raman Badge also conducted Activities based on Acid River and Plane Carpet on play group the main aim was to understand the *PO9 (Individual and Team work),PO10 (Communication)* were mapped.

Koradi Thermal Power Station Nagpur,

Industrial Visit at Koradi Power Plant

Aim: To conduct Industrial visit for student to develop into professional catering to industry centric technical skills.

Objective:

1. To understand the principles and processes involved in thermal power generation, including coal handling, boiler operations, turbine operations, and power transmission.
2. To observe and learn from the day-to-day operations of a thermal power plant, including maintenance, safety procedures, and environmental measures.
3. To relate theoretical concepts learned in the classroom to real-world applications in a thermal power plant.
4. To develop skills in areas such as teamwork, communication, and problem-solving through interactions with plant personnel and observation of plant operations.
5. To map attainment of course outcome of course Engineering Thermodynamics & Energy Conversion.& Program Outcome PO1,PO2,PO3,PO5,PO9,PO10,PO12,

Outcome of the Visit:

1. Students visited the Coal Handling Plant (CHP) to understand the coal handling process, including unloading, crushing, and conveying coal to the boiler.
2. Students observed the boiler operations, including the combustion process, steam generation, and superheating.
3. Students visited the turbine area to understand the conversion of thermal energy into mechanical energy, and subsequently into electrical energy.
4. Students observed the generator operations, including the conversion of mechanical energy into electrical energy.
5. Students visited the control room to understand the monitoring and control of the power plant's operations.
6. Students visited the switchyard to understand the transmission of electrical power to the grid.

Industrial Visit 3

Tata Advanced System Nagpur

Industrial Visit at Tata Advanced System Ltd., Nagpur

Aim: To conduct Industrial visit for student to develop into professional catering to industry centric technical skills.

Objective:

1. To provide students with practical exposure and hands-on experience in the latest manufacturing technologies and processes used in the electrical, electronics, and automotive industries.
2. To bridge the gap between theoretical knowledge and industrial applications, enabling students to the practical implications of their studies.
3. To familiarize students with the working culture, safety protocols, and quality control measures adopted by a leading manufacturing company like Tal Manufacturing Solutions Limited.
4. To develop skills in areas such as teamwork, communication, and problem-solving through interactions with plant personnel and observation of plant operations.
5. To provide students with opportunities to interact with industry professionals, learn from their experiences, and gain insights into the latest industry trends and developments.
6. To map attainment of course outcome of course Engineering Mechatronics & Program Outcome PO1, PO2, PO3, PO4, PO5, PO10, PO11, PO12

Outcome:

1. Students visited the various sections of the production floor, including Floor beam of Boeing plane preparation technique
2. Students observed machining of various parts of material like titanium, Aluminum used in Boeing Plane.
3. Students visited Electronic component assembly used in Boeing aero planes, including the 787- 8, 787-9, and 787-10 models.
4. Students observed valuable insights into the company's manufacturing processes, quality control measures, and commitment to delivering high-quality products to the aerospace industry.
5. Student visited the TQM department, where they learned about the company's quality management system, including its policies, procedures, and metrics.
6. Student visited the PPC section, where we learned about the company's production planning and control processes, including demand forecasting, production scheduling, and inventory management.

Expert Lecture Index

Sr. No	Semester	Subject of Expert Lecture	Date of Conduction	Expert lecture conducted by	Total Number of student present	PO-PSO mapped
1	IV ,VI,VIII	3D Printing and Innovative Product Development	11th January 2025	Dr. A. M. Kuthe, Professor and Incharge of BETIC, VNIT, Nagpur	100	PO3-3,PO2-3,PO3-3,PO5-3,PO8-3.PO12-3,
2	IV ,VI,VIII	Shop floor management	4 March 2025	Mr. Sanjay Agrawal, Head of Training Department at Mahindra & Mahindra Ltd Nagpur	35	PO1-3,PO2-3, PO5-3, PO12-3,PSO3-3,
3	IV ,VI,VIII	Quality System in Total Quality Management	11th April 2025	Mr. Vivek Shrouti, Deputy General Manager-CS & MC at Evonik Steel Limited,	22	PO1-3,PO2-3,PO3-3,PO5-3,PO9-3,PO12-3,PSO3-3,

Expert Lecture1

3D Printing and Innovative Product Development

Dr. A. M. Kuthe, delivered the lecture,

A group photo with dignitaries and Student

Aim:- The aim of the guest lecture was to introduce students to advanced 3D printing technologies and their applications in product design and innovation. It focused on fostering creative thinking, interdisciplinary collaboration, and providing insights into prototyping, research opportunities, and entrepreneurial pathways in additive manufacturing and medical devices.

Objectives:

1. To introduce students to the principles and applications of 3D printing technology in product design and development.
2. To explore the role of 3D printing in innovation, particularly in the fields of medical devices and tissue engineering.
3. To encourage students to translate their innovations into entrepreneurial ventures, contributing to societal advancement.

Program Details :-

The Guest Lecture on "3D Printing and Innovative Product Development" was delivered on 11th January 2025 by Dr. A. M. Kuthe, Professor and In-charge of BETIC, VNIT, Nagpur. Dr. Kuthe emphasized the Need for Product Design and Development and explored Additive Fabrication of Models. He shared various case studies on 3D printing, including a compelling example of fabricating a Temporomandibular Joint (TMJ), which was successfully restored in a patient.

Outcomes of the Event:-

1.Students gained a comprehensive understanding of 3D printing technology and its applications in product development, especially in engineering and medical fields.

2.The program encouraged students to think creatively and approach product design and innovation with a problem-solving mindset, exploring new possibilities in engineering solutions.

3.Students developed the ability to work effectively in interdisciplinary teams, particularly between biotechnology and mechanical engineering, fostering collaboration on innovative projects.

4.Students learned practical insights into prototyping and small-scale production, enhancing their understanding of how to bring conceptual designs to tangible, manufactural models.
5.The program introduced students to emerging areas like tissue engineering, medical device innovation, and 3D printing in engineering, inspiring them to explore these fields for future research and career development

Shop Floor Management

Mr. Sanjay Agrawal, Head of Training Department at Mahindra & Mahindra Ltd Nagpur delivered lecture.

Aim: To provide students with a comprehensive understanding of Shop Floor Management and its applications in the manufacturing industry.

Objective:

1. To introduce students to the concept and importance of Shop Floor Management in manufacturing industries.
2. To discuss the key components of effective Shop Floor Management, including lean manufacturing principles.
3. To explore the role of technology and digitalization in enhancing Shop Floor Management and productivity.
4. To emphasize the importance of quality management and workplace safety on the shop floor.

Program Details:

The Department of Mechanical Engineering recently hosted a guest lecture on "Shop Floor Management" delivered by Mr. Sanjay Agrawal, Head of Training Department at Mahindra & Mahindra Ltd Nagpur. The session covered key aspects of shop floor management, including its introduction and importance in manufacturing, components of effective shop floor management, and lean manufacturing principles to maximize efficiency and minimize waste

Other highlights included:

Technology and Digitalization: Leveraging technology to enhance shop floor management and improve productivity, such as Shop Floor Control Systems (SFC), Manufacturing Execution Systems (MES), and Quality Management Software (QMS).

Quality Management and Workplace Safety: Ensuring quality and safety on the shop floor through effective management practices, including quality control and workplace safety protocols.

Leadership Role: Understanding the crucial role leadership plays in successful shop floor management, including driving sales, enforcing company policies, and ensuring compliance with safety regulations.

Case Studies and Best Practices: Examining real-world examples and industry best practices, such as the 5S method, visual management tools like Kanban boards and Gantt charts, and establishing

manufacturing KPIs to measure productivity and efficiency .
The lecture concluded with a Q&A session and interactive discussion, providing students with valuable insights into shop floor management. The event was supported by esteemed faculty members and the program coordinator, Prof. Pramar Bakane.

Outcomes:-

1. Students will understand the significance of Shop Floor Management in manufacturing industries and its impact on productivity and efficiency.
2. Students will be able to analyze the key components of effective Shop Floor Management and apply lean manufacturing principles.
3. Students will learn about the application of technology, such as SFC and MES, to enhance Shop Floor Management and productivity.
4. Students will appreciate the importance of quality management and workplace safety on the shop floor and understand how to implement effective practices.

Quality System in Total Quality Management

Mr. Vivek Shrouti, delivering lecture on Quality System in Total Quality Management

Students and faculty understand the principal of management

Aim :-To provide students with valuable insights into effective quality systems within Total Quality Management, enhancing their understanding of quality improvement processes, operational workflows, and strategies for achieving continuous productivity enhancement in industrial settings.

Objectives:-

1.To understand the fundamentals of TQM, focusing on customer satisfaction, continuous improvement, and employee involvement.

2.To explore how integrating quality practices across all departments enhances efficiency and performance.

3.To gain practical experience with tools like Six Sigma, Pareto Analysis, and Control Charts to improve quality and solve problems.

4.To learn from successful TQM implementations in various industries and discuss challenges and benefits.

5.To equip skills to design and maintain quality management systems aligned with TQM principles.

Program Details :

The Department of Mechanical Engineering is organized a guest lecture on the topic "Quality System in Total Quality Management" scheduled for 11/04/2025. This insightful session aims to deepen students' understanding of quality systems, continuous improvement processes, and best practices in total quality management. The lecture provided valuable knowledge and practical insights, equipping students with the tools to address real-world quality challenges in industries. Additionally, the event will feature the felicitation of office bearers, making it a memorable occasion

Outcomes

1. Have a deep understanding of Total Quality Management (TQM) fundamentals, including customer satisfaction, continuous improvement, and employee involvement.

2. Understand how integrating quality practices across departments can enhance efficiency and performance.

3. Possess practical knowledge of quality management tools like Six Sigma, Pareto Analysis, and Control Charts.

4. Be familiar with successful TQM implementations, challenges, and benefits in various industries.

5. Be equipped with skills to design and maintain quality management systems aligned with TQM principles.

6. Have benefited from interactive learning and discussions with industry experts, enhancing their understanding of TQM concepts and applications.

Two-Day Workshop on "Hands-on Training on ANSYS Software"

Inauguration of of inauguration "Two-day hands-on training program on ANSYS software " by Chief Guest Mr. Mayuresh Kuchekar, Design Engineer, Virtual Simuteach Pvt. Ltd., Pune.

Aim: This two-day workshop aims to provide participants with comprehensive hands-on training on ANSYS Software from understanding its core functionalities to applying simulation techniques for real-world engineering problems. This training is essential for engineers, researchers, and enthusiasts looking to enhance their expertise in computational analysis and design.

Objectives:-

1. **Fundamental Understanding:** Provide participants with a solid foundation in ANSYS software, including its interface, tools, and capabilities for engineering simulations.
2. **Hands-on Training:** Enable participants to perform real-time simulations, analyze results, and optimize designs through practical exercises and case studies.
3. **Application in Engineering:** Demonstrate the application of ANSYS in various engineering fields, such as structural analysis, fluid dynamics, and thermal simulations.
4. **Problem-Solving Skills:** Equip participants with the ability to diagnose and troubleshoot common simulation challenges, enhancing their problem-solving and analytical skills.

Program Details :-

Day 1- (24/03/2025)

Mr.Mayuresh Kuchekar, Design Engineer at Virtual Simutech Pvt. Ltd., commenced the workshop with an engaging presentation covering:

Session1: Introduction to ANSYS

- Overview of ANSYS software and its applications
- Navigation and user interface

Session 2: CFD Analysis and Simulation

- Understanding computational fluid dynamics (CFD)
- Setting up and running CFD simulations

Day 2-(25/03/2025)

Mr. Mayuresh Kuchekar led a hands-on training session on geometric meshing and pre-processing for CFD simulations.

Session 1: Geometric Meshing and Pre-Processing

- Creating and refining meshes
- Pre-processing techniques for CFD simulations

Session 2: Post-Processing and Results Analysis

- Interpreting and visualizing simulation results
- Best practices for post-processing and results analysis

Session 3:- Valedictory Function

The workshop concluded with a valedictory function, where participants received certificates of participation and shared their feedback on the program.

Workshop Highlights

This two-day ANSYS training workshop provided participants with a comprehensive blend of theoretical knowledge and practical experience, fostering a deeper understanding of: ANSYS Software Fundamentals and CFD Analysis and Simulation with Improved Understanding, Practical Skills and Enhanced Problem-Solving Abilities:

Courses Mapped: Finite Element Analysis, Mechanical Vibrations, Automotive Engineering, Thermal Engineering.

Outcomes :

- Summarize **comprehensive understanding** of ANSYS software and its applications in engineering simulations.
- Apply ANSYS tools to perform structural, thermal, and fluid simulations in practical scenarios
- Analyze **problem-solving skills** to troubleshoot common engineering challenges through simulations.

- Explore **practical knowledge** in computational analysis, bridging the gap between theoretical learning and real-world applications.
- **Integrate** both faculty and students to **ANSYS-based simulations** into academic projects, research, and industry-relevant applications.
- Create models during the ANSYS hands-on training using various ANSYS modules such as **ANSYS Mechanical**, **ANSYS Fluent**, and **ANSYS Thermal**.

Parent Teacher Conclave

Parents Teacher Conclave (PTC)

Dr. Vijay Talodhikar offering flower to **photo of Lord Saraswati**

Parents and Staff during inauguration of Program

Aim: **To convey academic records, activities, behavior and results of students.**

Objective:

1. To establish rapport between HoD,Teacher, Students& Parents.
2. To establish a positive and open line of communication between parents and teachers.
3. To share information with parents about the curriculum, instructional approaches, and other classroom activities.
4. To identify any challenges, the student may be facing, whether academic or social-emotional.

Program Details :

The Parents Teacher Conclave for Mechanical Engineering students of IVth , VIth and VIIIth semester (Autonomous) was scheduled on 15-02-2025 (Saturday) between 11.00am to 3.000pm to discuss about Department activities, student progress and performance.

First phase of PTC began at central-level at JRD Tata hall. Hon. Principal Dr. P. L. Naktode gave the opening remark and motivated the students. Gold medals and certificates were distributed to First toppers of Winter-2024 End Semester Examination from all departments. Parent representative guests Shri. Ramdas Chafekar (ECE) and Ms. Priyanka Dhabarde (Civil) along with few other parents came forward and shared their views about college and it's Teaching Methodologies.

Second phase of PTC was conducted at Mechanical Engineering department Smart Class, II floor. Mechanical Engineering Department.It began with the traditional lamp lighting & Opening remarks by HoD (ME) - Dr. Vijay Talodhikar . He informed the parents regarding academic achievement and Department Policy.and another session for one-to-one interaction with the parents and discussed their issues.2nd & 3rd toppers of ESE exam were felicitated with Silver & Bronze medals along with certificate. This was followed by CT-1 exam result display, Cumulative Attendance display and Parent-Mentor wise discussion. Course coordinators also had discussion with parents.

Outcomes:

One to One Interaction between Parents and Teachers. Discussion was focused on student's specific strengths and weakness in individual subjects, various activities performed at department, administration and academics activities at department and institute level. Parents also expressed their gratitude regarding the care taken by the institute for the Growth of the students.

Alumni Meet and Holi Milan 2k25

Alumni Meet & HoliMilan–13th March2025
Venue: TGPCET Campus
Organized by: Alumni Association of TGPCET
In Association With: Department of Mechanical Engineering

The Alumni Association of TGPCET, in collaboration with the Department of Mechanical Engineering, organized the Alumni Meet & Holi Milan on 13th March 2025. The event aimed to reconnect alumni with their ammeter while fostering meaningful dialogue around academic progress, student development, and institution.

Alumni engaged in interactive sessions with faculty and mentors, sharing insights, offering suggestions, and reflecting on their experiences. The event also focused on the department's upcoming NBA accreditation, with alumni contributing valuable feedback on academic and infrastructural improvements.

Highlight so the event included the recognition of top-performing students, discussions on curricular and co-curricular enhancement, and proposals for future alumni-led initiatives. The celebration of Holi added a festive touch, symbolizing unity, and new beginnings.

Program Outcomes Mapped: PO8 (Ethics), POG (Teamwork), PO10 (Communication)

GAERFEST 2k25 A National Level Technical Event

Aim:- To provide a national-level technical platform for students from diverse academic backgrounds to showcase their innovative ideas, technical acumen, and creative abilities, while fostering innovation, collaboration, and skill development.

Objective:-

1. To foster innovation, technical knowledge, and creativity among young minds.
2. To provide a competitive yet collaborative environment for technical skill development.
3. To promote interdisciplinary learning and collaboration.
4. To offer students a chance to showcase their projects, models, and technical awareness.
5. To enhance leadership, teamwork, and presentation skills among participants.

Program Details:-

The Department of Mechanical Engineering successfully organized a National-Level Technical Event titled **"GAERFEST 2K25"** on **16th April 2025**. The event aimed to provide a dynamic platform for students from diverse academic backgrounds—including diploma, science, and engineering streams—to showcase their innovative ideas, technical acumen, and creative abilities. The event commenced with a warm welcome extended to the **Chief Guest, Mr. Pramod Nichat**, CEO of **Nichat Motors**, by **Dr. Mukul Pande**, Director of Information Technology. In his insightful address, Mr. Nichat emphasized several key themes relevant to students' academic and professional development. He highlighted the **value of time** as a crucial resource and stressed the **importance of continually acquiring new skills** to remain competitive in today's fast-evolving technological landscape. Moreover, he underlined the significance of **professional behaviour and respectful conduct**, encouraging students to maintain a positive and courteous attitude in all interactions. The event was a great success and served as a meaningful opportunity for students to engage with industry leaders, enhance their technical knowledge, and gain valuable insights for their future careers.

Activity Conducted:-

S. No.	Activity	Description
1	**CAD Model Competition**	Designing and presenting innovative 3D mechanical models using CAD software.
2	**Quiz Competition**	A technical quiz assessing participants' knowledge in mechanical, general engineering, and innovation trends.
3	**Poster Competition**	Designing posters on emerging technological themes like AI in Manufacturing, Sustainable Engineering, etc.
4	**Project Competition**	Presentation of innovative prototypes, research models, and engineering solutions.
5	**E-Sport Competition**	A gaming contest promoting strategy building, quick decision-making, and stress management skills.

Outcome of the Event:-

Participation: Over 225participants from in-house and outhouse organization.

Skills Enhanced: Technical design, analytical thinking, creativity, leadership, teamwork, and communication.

Feedback: Overwhelmingly positive feedback highlighting event organization, quality of activities, and expert interaction.

Recognition: Winners were awarded certificates, trophies, and cash prizes to encourage further innovation

Farewell- 2K25

Aim: - The aim of the Farewell function is to bid a warm and heartfelt goodbye to the final-year Students, recognizing their achievements, celebrating their journey through the years, and Wishing them success as they step into the next phase of life.

Objectives:-

1.The objective of a farewell function is to celebrate their achievements, acknowledge their contributions to the community, and wish them well in their future endeavors &a time to honor their journey, bid them farewell, and create lasting memories

2. To honor and appreciate the contributions and achievements of the final-year students throughout their academic journey.

3. To celebrate memories and strengthen the bond between juniors and seniors through a joyful and Respectful send-off.

4.To inspire and motivate outgoing students as they transition into professional life and new beginnings.

5.To express gratitude and wish the final-year students success, happiness, and growth in their future endeavors.

Program Details :-

Department of Mechanical Engineering of Tulsiramji GaikwadPatil College of Engineering and Technology, Nagpur (TGPCET) have organized a farewell Function- 2K25 for the students of final year batch 2024-25 on 17.04.2025 at the amphitheatre, TGPCET, Nagpur. This event was organized for final year students who passed out from the institute. Total more than 120 Students have attended this programwhich was hosted by the 2nd year and 3rd year student's collaboration.

About theProgram:

of Mechanical Engineering has organized a grand farewell for the final year Students of Tulsiramji Gaikwad-Patil College of Engineering & Technology Nagpur at Amphitheatre, Nagpur. The event was begun with the addressing of gathering by head of the department Dr. Vijay Talodhikar and floral welcome of all final year students. Dean IQAC commented on speech that remember to apply the knowledge and skills you've acquired to make a meaningful impact in your chosen fields. Stay curious, stay innovative, and stay committed to excellence.

Dean Academic commented on speech that your time here has been a foundation for your future success, and we're proud of the individuals you've become.

The students were also felicitated with a memorable memento as token of love. The event was full of activities like games, singing, raps, rapid fire & other cultural activities for pass out students. The students have shared their experiences and memories of their engineering journey.

FarewellParty2k25






Message from the Department

Dear Final-Year Students,

As you prepare to embark on your next chapter, the entire ME family takes this moment to salute your hard work, achievements, and spirit. You have grown into engineers ready to innovate, lead and contribute to society.

Your journey at TGPCET may be ending, but our best wishes will follow you wherever life takes you. Keep pushing boundaries, stay curious and never forget your roots.

You're always apart of the ME family.

With pride and blessings,

Faculty Achievements

Sr. No.	Name of Students	Course	Position/Remark	Organized by / Date of Conduction
1	Prof. L Chaitanya Maddila	NATE	Elite Certification	NPTEL/SWAYAM
2	Prof.Ravindra Shende	NATE	Certificated	NPTEL/SWAYAM
3	Prof.Dipali Bhoyar	NATE	Elite Certification	NPTEL/SWAYAM
4	Prof.Ravindra Shende	NATE	Elite Certification	NPTEL/SWAYAM


NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)
This certificate is awarded to
RAVINDRA SHENDE
for successfully completing the course
Engine system and performance
with a consolidated score of 55 %
Online Assignments 20.22/25 | Proctored Exam 34.5/75
Total number of candidates certified in this course: 159
Jan-Apr 2025
(12 week course)
Prof. T. V. Bharat
Indian Institute of Technology Guwahati
Roll No: NPTEL25ME19S1052801593 To verify the certificate No. of credits recommended: 3 or 4


Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)
This certificate is awarded to
L CHAITANYA MADDILA
for successfully completing the course
NBA Accreditation and Teaching and Learning in Engineering (NATE)
with a consolidated score of 61 %
Online Assignments 19.85/25 | Proctored Exam 41.25/75
Total number of candidates certified in this course: 2145
Jan-Apr 2025
(12 week course)
Prof. G. L. Sivakumar Babu
Prof. L. Umanand
Indian Institute of Science Bangalore
Roll No: NPTEL25GE23S1052802078 To verify the certificate No. of credits recommended: 3 or 4


Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)
This certificate is awarded to
RAVINDRA SHENDE
for successfully completing the course
Effective Writing
with a consolidated score of 75 %
Online Assignments 23.54/25 | Proctored Exam 51.25/75
Total number of candidates certified in this course: 3877
Prof. Kaushik Ghosh, Professor(Chemistry) Coordinator CEC
Jan-Mar 2025
(8 week course)
Prof. Ranjana Pathania, Professor (BSBE) Coordinator (NPTEL)
Indian Institute of Technology Roorkee
Roll No: NPTEL25HS14S540300694 To verify the certificate No. of credits recommended: 2 or 3


Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)
This certificate is awarded to
DIPALI CHANDRABHAN BHOYAR
for successfully completing the course
Automatic Control
with a consolidated score of 63 %
Online Assignments 17.92/25 | Proctored Exam 45/75
Total number of candidates certified in this course: 91
Prof. Kaushik Ghosh, Professor(Chemistry) Coordinator CEC
Jan-Mar 2025
(8 week course)
Prof. Ranjana Pathania, Professor (BSBE) Coordinator (NPTEL)
Indian Institute of Technology Roorkee
Roll No: NPTEL25ME07S640302980 To verify the certificate No. of credits recommended: 2 or 3

Students Placement				
Sr. No.	**Name of Student**	**Gender**	**Branch**	**Company Name**
1	Aniket Singh	M	ME	Lloyds Infrastructure and Constructions
2	Akash Choudhari	M	ME	Sanvijay Groups
3	Khumesh Baghele	M	ME	Sanvijay Groups
4	Pratik Taiwade	M	ME	Sanvijay Groups
5	Rutvik Dhage	M	ME	Sanvijay Groups
6	Suhas Dhone	M	ME	Sanvijay Groups
7	Linesh Giradkar	M	ME	Sanvijay Groups Seva Automative Pvt Ltd, Nagpur
8	Sagar Pohane	M	ME	Seva Automative Pvt Ltd, Nagpur
9	Utkarsh Kusrame	M	ME	Seva Automative Pvt Ltd, Nagpur
10	Atulesh Patil	M	ME	Sunmarc Paper Industry Pvt Ltd, Nagpur
11	Pranay Darne	M	ME	Sunmarc Paper Industry Pvt Ltd, Nagpur Sanvijay Groups
12	Tanay Singh	M	ME	Sunmarc Paper Industry Pvt Ltd, Nagpur Sanvijay Groups
13	Mayur Palasram Varhokar	M	ME	Megha Enginering and Infrastrcturen Ltd
14	AKASH MOURYA	M	ME	Lloyds Infrastructure and Constructions
15	SHUBHAM LILHARE	M	ME	Lloyds Infrastructure and Constructions
16	Sahil Ghodmare	M	ME	RR Cables
17	Sarthak Khobragade	M	ME	RR Cables
18	Saurabh Nishad	M	ME	RR Cables
19	Karan Jibhakate	M	ME	Spark Minda
20	Chandrashekhar Pardhi	M	ME	Spark Minda

Two Day CFD Simulation using ANSYS Workshop in Mechanical Engineering of TGPCET Nagpur				
Sr. No	**Name of Event**	**Date of Event**	**Name of Participant**	**Category of Event**
1	**Two Day CFD Simulation using ANSYS Workshop**  *Workshop Certificate*	24-03-2025 &25-03-2025	ARPITA RAVINDRA KHANZODE	Department Level
2		24-03-2025 &25-03-2025	RAJSHRI DILIP PATIL	Department Level
3		24-03-2025 &25-03-2025	RUCHIKA PRAMOD NARAD	Department Level
4		24-03-2025 &25-03-2025	SANJANA BABLU AJIT	Department Level
5		24-03-2025 &25-03-2025	SHRUTI NAMDEO BAWANE	Department Level
6		24-03-2025 &25-03-2025	ABHISHEK SINGH	Department Level
7		24-03-2025 &25-03-2025	ADITYA MAHENDRA RAHANGDALE	Department Level
8		24-03-2025 &25-03-2025	AMAN SUBHASH KUMBHALKAR	Department Level
9		24-03-2025 &25-03-2025	AMIT GAJANAN DESHMUKH	Department Level
10		24-03-2025 &25-03-2025	ANUKUL SUNIL KAPSE	Department Level
11		24-03-2025 &25-03-2025	ATHARVA DNYANESHWAR DUBEY	Department Level
12		24-03-2025 &25-03-2025	AYURKUMAR PRAMOD SONULE	Department Level
13		24-03-2025 &25-03-2025	DARSHAN DILIP GAIDHANE	Department Level
14		24-03-2025 &25-03-2025	HIMANSHU ANIL WALTHARE	Department Level
15		24-03-2025 &25-03-2025	JITENDRA AMRITLAL YADAV	Department Level
16		24-03-2025 &25-03-2025	LOCHAN BARIKRAO NIMAJE	Department Level
17		24-03-2025 &25-03-2025	MAYUR SANJAY DHENGALE	Department Level
18		24-03-2025 &25-03-2025	MAYUR SUNIL DHABAI	Department Level
19		24-03-2025 &25-03-2025	MOHIT DULIRAM GEDAM	Department Level
20		24-03-2025 &25-03-2025	NIKESH REKCHAND BOPCHE	Department Level
21		24-03-2025 &25-03-2025	OMKAR ARUN NAWGHADE	Department Level
22		24-03-2025 &25-03-2025	PANKAJ GAJANAN NAGPURE	Department Level
23		24-03-2025 &25-03-2025	PARAS CHUNNILAL GOTEPHODE	Department Level
24		24-03-2025 &25-03-2025	PRANAY SURESH NINAWE	Department Level
25		24-03-2025 &25-03-2025	PRAVIN AVINASH PRADHAN	Department Level
26		24-03-2025 &25-03-2025	RAUNAK RANVIR YADAV	Department Level
27		24-03-2025 &25-03-2025	ROHIT HITESH DHONE	Department Level
28		24-03-2025 &25-03-2025	SAHIL CHARAN BHOVATE	Department Level
29		24-03-2025 &25-03-2025	SAIKIRAN BAPU GANTA	Department Level
30		24-03-2025 &25-03-2025	SARTHAK SHARAD RAHANGDALE	Department Level
31		24-03-2025 &25-03-2025	SHUBHAM GANESH SATPUTE	Department Level
32		24-03-2025 &25-03-2025	SHUBHAM KISHOR KAKADE	Department Level
33		24-03-2025 &25-03-2025	SHUBHAM TUKARAM KAPSE	Department Level
34		24-03-2025 &25-03-2025	SIDDHANT VINOD TIJARE	Department Level
35		24-03-2025 &25-03-2025	SNEHAL SUNIL SUKHDEVE	Department Level

Department in Media 2024-25

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'टीजीपीसीईटी'मध्ये व्याख्यान

नागपूर : गायकवाड पाटील अभियांत्रिकी महाविद्यालयाच्या यांत्रिकी अभियांत्रिकी विभागाने 'शॉप फ्लोअर मॅनेजमेंट' या विषयावर अतिथी व्याख्यानाचे आयोजन केले होते. यावेळी महिंद्रा अँड महिंद्राचे प्रशिक्षण विभाग प्रमुख संजय अग्रवाल यांनी मार्गदर्शन केले. उद्योगात काम करताना विद्यार्थ्यांनी कुठल्या गोष्टींची काळजी घ्यावी यावर संजय अग्रवाल यांनी मार्गदर्शन केले. तसेच विद्यार्थ्यांनी विचारलेल्या प्रश्नांची उत्तरेही दिली. संस्थेचे अध्यक्ष डॉ. मोहन गायकवाड, आकाश गायकवाड, डॉ. संदीप गायकवाड, डॉ. पी. एल. नाकतोडे आदींची कार्यक्रमासाठी शुभेच्छा दिल्या.

A News of Guest Lecture on "Shop Floor Management" Organized by Mechanical Engineering Department of TGPCET Nagpur Published in Loksatta on dated 07-03-

टीजीपीसीईटी, नागपूर येथे मेकॅनिकल इंजिनिअरिंग विभागाने 'शॉप फ्लोअर मॅनेजमेंट' या विषयावर अतिथी व्याख्यान आयोजित

दैनिक देशप्रदेश केसरी
मंगळवार, 4 मार्च 2025 रोजी, मेकॅनिकल इंजिनिअरिंग विभागाने 'शॉप फ्लोअर मॅनेजमेंट' या विषयावर अतिथी व्याख्यान आयोजित केले, जे महिंद्रा अँड महिंद्रा लिमिटेड, नागपूर येथील प्रशिक्षण विभाग प्रमुख श्री. संजय अग्रवाल यांनी दिले. कार्यक्रमाची सुरुवात प्रमुख पाहुणे श्री. संजय अग्रवाल आणि डॉ. विजय तलोणीकर (प्रमुख, मेकॅनिकल विभाग) यांच्या हस्ते दीपप्रज्वलनाने झाली. उद्घाटनपर भाषण डॉ. विजय तलोणीकर यांनी दिले.तसेच शॉप फ्लोअर मॅनेजमेंटच्या मूलभूत संकल्पनांबाबत सविस्तर माहिती दिली आणि पुढील महत्त्वाच्या मुद्द्यांवर विशेष भर दिला. शॉप फ्लोअर मॅनेजमेंटची ओळख, शॉप फ्लोअर मॅनेजमेंटचे घटक, लीन मॅन्युफॅक्चरिंग आणि शॉप फ्लोअर कार्यक्षमता, शॉप फ्लोअर मॅनेजमेंटमधील संज्ञान आणि डिजिटलायझेशन, शॉप फ्लोअरवरील गुणवत्ता व्यवस्थापन, कार्यस्थळी सुरक्षितता आणि नियमांचे पालन, शॉप फ्लोअर मॅनेजमेंटमधील नेतृत्वाची भूमिका, केस स्टडीज आणि उद्योगातील सर्वोत्तम पद्धती, प्रश्नोत्तर आणि संवादात्मक चर्चा, या अतिथी व्याख्यानाचे आयोजन करण्यासाठी अमूल्य मार्गदर्शन दिल्याबद्दल डॉ. मोहन गायकवाड-पाटील (अध्यक्ष, जीपीजी), श्री. आकाश गायकवाड-पाटील (उपाध्यक्ष, जीपीजी), डॉ. संदीप गायकवाड-पाटील (खजिनदार, जीपीजीआय), डॉ. पी. एल. नाकतोडे (प्राचार्य), आणि डॉ. प्रगती पाटील-बेडेकर (उपप्राचार्य) यांचे मनःपूर्वक आभार. या कार्यक्रमाचे समन्वयक प्रा. प्रमर चक्रने होते.

News of Guest Lecture on "Shop Floor Management" Organized by Mechanical Engineering Department of TGPCET Nagpur Published Deshpradesh Kesri on dated 12-03-2025

TGPCET

TULSIRAMJI Gaikwad-Patil College of Engineering & Technology (TGPCET) organised a Guest Lecture on 'Shop floor management' delivered by Sanjay Agrawal, Head Training Department, Mahindra & Mahindra Ltd Nagpur. The expert provided detailed information about the basics of Shop floor management.

A News of Guest Lecture on "Shop Floor Management" Organized by Mechanical Engineering Department of TGPCET Nagpur Published in The Hitavada on dated 19-03-2025

कम्प्यूटेशनल फ्लूइड डायनामिक्स पर सेशन

विद्यार्थियों को दिया गया प्रशिक्षण

एजुकेशन भास्कर | नागपुर. तुलसीरामजी गायकवाड़ पाटील कॉलेज ऑफ इंजीनियरिंग एंड टेक्नोलॉजी के मैकेनिकल इंजीनियरिंग विभाग एएनएसवाईएस सॉफ्टवेयर पर दो दिवसीय व्यावहारिक प्रशिक्षण कार्यक्रम का आयोजन किया गया। किर्लोस्कर हॉल में आयोजित इस कार्यक्रम में वर्कबेंच जियोमेट्रिक मेशिंग के जरिए कम्प्यूटेशनल फ्लूइड डायनामिक्स (सीएफडी) विश्लेषण पर केंद्रित सत्र हुए। पुणे के मैकेनिकल डिजाइन इंजीनियर एम. मयूरेश कूचेकर ने उन्नत सिमुलेशन तकनीकों और वास्तविक दुनिया में उनके अनुप्रयोगों पर महत्वपूर्ण जानकारी दी। अनुभवी फैकल्टी और प्रशिक्षकों द्वारा संचालित इस प्रशिक्षण में छात्रों को ज्यामितीय मेशिंग, सीएफडी सिमुलेशन और समस्या समाधान में व्यावहारिक अनुभव प्रदान किया गया। विभाग का उद्देश्य इस प्रकार की पहल के माध्यम से छात्रों को तकनीकी दक्षता प्रदान कर उन्हें उद्योग की भविष्य की चुनौतियों के लिए तैयार करना है।

A News of inauguration "Two-day hands-on training program on ANSYS software " Organized by Mechanical Engineering Department of TGPCET Nagpur Published in Dainik Bhaskar on dated 25-03-2025.

TGPCET Mechanical Engineering Department Hosts ANSYS Training Program

Nagpur: The Mechanical Engineering Department of Tulsiramji Gaikwad Patil College of Engineering and Technology (TGPCET) successfully organized a two-day hands-on training program on ANSYS software on March 24, 2025. The event, held at Kirloskar Hall, TGPCET, focused on Computational Fluid Dynamics (CFD) analysis using Workbench Geometric Meshing.

Mr. M. Mayuresh Kuchekar, a Mechanical Design Engineer at Virtual Simutech Pvt. Ltd., Pune, provided expert insights into real-world applications and advanced simulation techniques. The sessions were led by experienced faculty members and trainers, equipping students with essential skills in geometric meshing, CFD simulation, and problem-solving.

The department remains committed to fostering technical excellence and preparing students for industry challenges through such initiatives. The event was graced by esteemed dignitaries, including Hon'ble Mohan Gaikwad-Patil (Chairman, GPGI), Hon'ble Mr. Akash Gaikwad-Patil (Vice-Chairman, GPGI), Hon'ble Dr. Mohan Gaikwad-Patil (Treasurer, GPGI), P. L. Naktode (Principal), and Dr. Pragati Patil Bedekar (Vice-Principal).

The college extends its heartfelt gratitude to all stakeholders for their invaluable support in making this event a success.

A News of inauguration "Two-day hands-on training program on ANSYS software " Organized by Mechanical Engineering Department of TGPCET Nagpur Published in Desh pardesh Kesri on dated 25-03-2025.

“The future belongs to those who believe in the beauty of their dreams.”
— Eleanor Roosevelt

This newsletter reflect say ear of growth, learning and unity. As we close this chapter, we look forward to continuing our journey with renewed purpose and passion.
To every contributor, participant and supporter thank you for making this academic session extraordinary.
We remain committed to excellence, innovation, and holistic development.

Editorial Team
Department of Mechanical Engineering
TGPCET, Nagpur

SESSION 2024-2025