



TULSIRAMJI GAIKWAD-PATIL
College of Engineering & Technology
An Autonomous Institute



NAAC Accredited

www.tgpcet.com

Department of Science and Humanities

KSHITIJ

NEWSLETTER 2024-25

Semester- II

Volumn:2 Issue:4



B.Tech | B.Arch | M.tech | MBA | MCA | Polytechnic | BAMS | D.Pharm | B.Sc | Nursing | Physiotherapy

Vision Mission of the Institute



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



- 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.



POs

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 modeling 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 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.



ABOUT TGPCET & ABOUT DEPARTMENT

ABOUT TGPCET

Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) was established in the year 2007 by Vidarbha Bahu-uddeshiya Shikshan 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, Maharashtra State. The Institute is Accredited with A+ (3.32 CGPA) by NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC). An Autonomous Institute affiliated to RTM Nagpur University, Nagpur.

ABOUT DEPARTMENT

The Department of Basic Sciences and Humanities was established in 2007 with a current year intake of 1,020 students. The Basic Science Department plays a pivotal role in providing a strong foundation for engineering students.

The department imparts essential knowledge in subjects like mathematics, physics, chemistry, and communication for comprehensive student development. This forms the cornerstone for various engineering disciplines.

The Department has its own departmental library with a comprehensive collection of books to serve as a ready source of information. It comprises a team of experienced and well-qualified faculty members who have a passion for teaching and provide high-quality instruction, helping students build a strong academic foundation.

The Department focuses on interdisciplinary learning, which bridges the gap between science and engineering, fostering innovative thinking among students. This approach is vital for solving complex real-world engineering problems.

Basic science courses emphasize critical thinking and problem-solving skills, which are highly transferable to engineering tasks. Studying the fundamentals of science can inspire creativity in engineering students, encouraging innovative solutions to engineering challenges.

The department organizes industrial visits and expert lectures on emerging trends, featuring eminent personalities from industry and academia.

To establish a link between students and parents, the department has implemented a Mentor-Mentee scheme. Teachers act as mentors, guides, and philosophers who interact constantly with students. This academic family approach helps address students' educational, socio-economic, health-related, and personal challenges, providing comprehensive support and guidance.



ABOUT MANAGEMENT



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

“Education is the passport to the future, for tomorrow belongs to those who prepare for it today.”

Dr. Mohan Gaikwad-Patil, with more than 35 years of experience in the 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 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 the 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 an educational group well known in the region for its constant striving to impart quality and industry-relevant education to the students by teaching courses like B.Tech, M.Tech, Architecture, Polytechnic, MBA, MCA, Pharmacy, BAMS, Physiotherapy and Nursing. Hardly in his early forties, Dr. Mohan Gaikwad-Patil is the young and dynamic face of the group. His contagious enthusiasm and unflagging drive are truly inspiring.



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

“Education is not preparation for life, education is life itself.”

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.



ABOUT MANAGEMENT



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 thrive in a dynamic industry. With a rich legacy of academic excellence, we offer a diverse range of engineering and management programs designed to equip you with the knowledge, skills, and experiences needed to thrive in the ever-evolving engineering landscape. 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.”



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 students 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.



ABOUT MANAGEMENT



Dr. P. L. Naktode
Principal
Principal@tgpcet.com

“Nurturing Innovation, Empowering Leaders - Engineering Education Redefined .”

It is my privilege to warmly welcome you to the college, which is an autonomous institution, committing to quality education. We work on the principle of “Learn to Grow” With this very inspiring thought, Vidarbha Bahu Uddeshiya Shikshan Sanstha Nagpur has laid a foundation to provide education in the field of engineering to the students to enable them to become good practicing engineers, capable managers and above all a good human being to build a stronger, vibrant and skilled India. We dream that TGPCET should play a definite role in shaping the careers of tomorrow's leaders and developing individuals to have an impact on global development.

Looking at our track records, TGPCET has achieved many feathers in terms of consistently good results, placements, and extracurricular activities too. We are continuously in the process of imparting quality education to our budding engineers. This journey is succeeding more gloriously year after year making our Engineers rule the world. Success depends on opportunity. Try to get the maximum from the available resources. I wish best of luck in all your endeavors.



Dr. Pragati Patil
Vice Principal
viceprincipal@tgpcet.com

Welcome to Tulsiramji Gaikwad Patil College of Engineering and Technology (TGPCET) in Nagpur, Maharashtra, a leading educational institution. Inspired by the words of Shri. APJ Abdul Kalam, **"Dreams are not those which we see while sleeping, but dreams are those which do not let us sleep,"**. TGPCET strives for ambitious goals through knowledge acquisition, hard work, and perseverance. Our institution has quickly emerged as one of Maharashtra's premier technical education institutions. We emphasize academic excellence and technical skill development to meet industry demands while instilling values of integrity, morality, and sustainability.

At TGPCET, we leverage cutting-edge technology to foster an innovative learning environment, encouraging students to think critically and explore new ideas. Our students engage in national and international competitions to tackle real-world challenges, supported by faculty who stay updated with the latest technologies. Professional organizations like IEEE, CSI, ISTE, SAE-India, and SESI enhance skills through robust platforms. Beyond academics, we promote holistic development through sports, cultural activities, and social initiatives, nurturing responsible citizens. Join TGPCET to excel, innovate, and lead in a supportive environment where growth and transformation are limitless.



Head of Department



DR. MAMTA TAKARKHEDE
Head, Science & Humanities
Department

Welcome to Department of Basic Sciences and Humanities. Department is laying the strong foundation for budding engineers, through our determined, devoted dedicated team of young dynamic faculty members. The department enhances students' knowledge, critical thinking, ability to understand the technology and command of analyzing the things in modern society.

Department of Basic Sciences and Humanities plays Vital role in an engineering college to lay a strong foundation of basic principles such as Mathematics Physics, Chemistry and Communication Skills in the mind of the learners. I am confident that the students of the department would justify the credibility of the department by showing a high level of professional competence in their respective field.

I wish Best of Luck to the students.....



EDITORIAL BOARD



Dr. Kanchan R. Gopal
Chief Editor
Assistant - Professor,
Basic Sciences & humanities



Prof. Kalyani Bhambre
Managing Editor
Teaching Assistant, Science &
Humanities Department

It brings me immense joy & pleasure to introduce the Fourth edition of the department NEWSLETTER "KSHITIJ". All the creative energies that came on to this platform in the form of faculty experts & students are finally presenting a replica of their enthusiastic hard work through this extravaganza that has come out so organically. Technical & Arts every section shines out differently in its true sense. All the events conducted throughout the year were perfectly planned & the overwhelming response it received said it all! This piece of art would not have been complete without the sheer determination & perseverance of all the students who pushed their limits every time to bring out this artistic reality. Their efforts coupled with immense support from the faculties truly have done justice to carry on the legacy. I am grateful for all the support NEWSLETTER "KSHITIJ" has received throughout the year in every possible way from the faculties & Students. I hope the readers of NEWSLETTER have a wonderful reading experience & wish this year's edition too receives your love & support like it has always received till date.



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Industrial Visit

LIST OF VISIT'S



Sr. No.	Name of Company	Branch	Date
1	Utkarsha Enterprises	AE / EE	25 Feb 2025
2	IT Networkz	CSE(DS)	22 Mar 2025
3	VDIA Engineering Design Innovation Centre	ECE	25 Mar 2025
4	Bramhanee Industries	ME	5 Jun 2025
5	Regional Metrological Centre	AE	5 Aug 2025
6	Royal Webtech Pvt Ltd	IT	13 May 2025
7	CSIR-NATIONAL ENVIRONMENTAL ENGINEERING	BT	14 May 2025
8	PSK Technologies Pvt Ltd	CSE	17 May 2025



Utkarsh Enterprises



AIM:

To expose First Year Engineering students to real-world industrial processes, machinery, and safety practices through a guided visit to Utkarsh Enterprises, Butibori, Nagpur, thereby enhancing their practical understanding of manufacturing, engineering applications, and workplace culture at an industrial level.



Objectives of the Industrial Visit:

- To introduce students to real-time industrial operations and manufacturing processes followed at Utkarsh Enterprises.
- To understand the application of engineering principles in machining, fabrication, and production environments.
- To observe the role of automation, quality control, and safety measures in an industrial setup.
- To familiarize students with the functioning of mechanical tools, equipment, and production lines.



Conclusion:

The industrial visit to Utkarsh Enterprises, Butibori, Nagpur, proved to be an enriching experience for the First Year Engineering students. It provided valuable exposure to real-time manufacturing processes, machinery operations, and workplace ethics. Students observed the practical application of basic engineering concepts and developed a better understanding of industrial workflows, safety standards, and quality control techniques.



Glimpses of Visit



IT Networkz Pvt Ltd

AIM:

To provide First Year Engineering students with exposure to real-world IT infrastructure, networking solutions, and cybersecurity practices through an industrial visit to IT Networkz, Nagpur, thereby enhancing their foundational understanding of computer networks, hardware systems, and professional IT environments.

Objectives:

To familiarize students with the structure and operation of modern IT infrastructure, including servers, routers, switches, and networking protocols.

To understand the practical application of basic concepts in computer science, electronics, and communication in an IT setup.

To gain insights into cybersecurity practices, data management, and enterprise network architecture.

To observe the functioning of real-time support systems, client services, and system integration processes.

Conclusion:

The industrial visit to IT Networkz, Nagpur, offered an insightful and practical learning experience for the First Year Engineering students. It enabled them to witness firsthand how IT systems and networks function in a professional environment and how theoretical knowledge is applied to solve real-time challenges.

Through this exposure, students gained a deeper appreciation for fields like networking, cybersecurity, and IT services. The visit sparked curiosity, encouraged professional thinking, and helped them understand the dynamic nature of the information technology industry. Overall, it was a highly beneficial initiative that enriched the academic learning process.



Glimpses of Visit



Department of Science and Humanities

Bramhanee Industries



AIM:

To introduce First Year Engineering students to the practical aspects of furniture design, manufacturing processes, and industrial operations through a visit to Bramhanee Furniture Pvt. Ltd., Butibori, Nagpur, enhancing their understanding of materials, production techniques, and the role of engineering in the furniture industry.



Objectives:

- To understand the complete manufacturing workflow of furniture production — from raw material selection to finished product assembly.
- 1. To familiarize students with the use of machines such as CNC routers, cutting tools, polishing units, and assembly stations in a real industrial setup.
- 2. To observe how concepts of mechanical, civil, and production engineering are applied in the furniture industry.
- 3. To gain exposure to quality control, inventory management, and workplace safety standards in a factory environment.
- 4. To build awareness about sustainable manufacturing, design innovation, and efficient use of materials in furniture production.



Conclusion:

The industrial visit to Bramhanee Furniture Pvt. Ltd., Butibori, Nagpur was valuable experience for students. Students gained hands-on exposure to machinery, materials, and production management, enhancing their practical understanding of industrial operations. The visit also highlighted the importance of precision, sustainability, and innovation in modern manufacturing. Overall, the visit successfully bridged the gap between theory and practice, and motivated students to think critically about engineering applications in design and industry.



Glimpses of Visit



Department of Science and Humanities

Regional Meteorological Center



AIM:

To provide First Year Engineering students with practical exposure to meteorological instruments, weather forecasting techniques, and environmental data analysis by visiting the Regional Meteorological Center, Nagpur, thereby enhancing their understanding of interdisciplinary applications of Physics, Environmental Science, and Data Interpretation in real-world scenarios.



Objectives of the Industrial Visit:

To familiarize students with the working environment of a meteorological organization and its role in weather forecasting and climate monitoring.

To observe and understand the functioning of various meteorological instruments such as barometers, anemometers, rain gauges, and weather radar systems.

To gain insights into the process of data collection, analysis, and interpretation used in predicting weather patterns and natural disasters.

To bridge the gap between theoretical knowledge and real-time applications of physics and environmental science in meteorology.

To develop awareness about the importance of atmospheric science and its societal impact, including agriculture, aviation, disaster management, and public safety.

To motivate students to explore interdisciplinary career opportunities in fields such as climatology, environmental engineering, and geospatial technologies.



Conclusion:

The visit was very fruitful for the students. In summary, Automated Weather equipment process can be challenging and complex, and manufacturers must navigate a range of issues related to raw material availability, design and engineering, production efficiency, quality control, environmental concerns.



Glimpses of Visit



Department of Science and Humanities

Royal Webtech pvt ltd



AIM:

To provide First Year Engineering students with practical exposure to software development, web technologies, and IT project workflows through an industrial visit to Royal Webtech Pvt. Ltd., Nagpur, enhancing their foundational knowledge of the IT industry and its real-world applications.



Objectives:

- To introduce students to the real-time working environment of an IT company involved in software development and web-based solutions.
- To understand the process of website design, development, testing, and deployment using modern web technologies.
- To gain insights into client interaction, project management, and software development life cycle (SDLC) practices followed by the industry.
- To explore different roles in an IT firm such as frontend/backend developers, testers, UI/UX designers, and project coordinators.



Conclusion:

The industrial visit to Royal Webtech Pvt. Ltd., Nagpur, provided First Year Engineering students with valuable exposure to the dynamic environment of the software and web development industry. Students learned how IT companies handle client requirements, manage development projects, and use modern tools and technologies to deliver digital solutions.



Glimpses of Visit



Department of Science and Humanities

CSIR-NATIONAL ENVIRONMENTAL ENGINEERING RESEARCH INSTITUTE-NEERI

AIM:

To provide First Year Engineering students with practical insights into environmental research, pollution control technologies, and sustainable development through an industrial visit to CSIR-NEERI, Nagpur, thereby fostering awareness of environmental challenges and engineering solutions in the real world.

Objectives:

- To introduce students to the ongoing environmental research, innovations, and eco-friendly technologies developed at CSIR-NEERI.
- To understand the scientific and engineering principles behind water and air quality monitoring, waste management, and pollution control.
- To observe how laboratories function in real-time for environmental testing, analysis, and remediation studies.
- To explore the role of engineers and scientists in addressing environmental issues such as climate change, industrial pollution, and resource conservation.

Conclusion:

The industrial visit to CSIR-National Environmental Engineering Research Institute (NEERI), Nagpur, offered First Year Engineering students an eye-opening experience into the world of environmental science and sustainable engineering.

The visit deepened their understanding of the environmental impact of technology and the need for sustainable solutions. Overall, the experience was highly educational, thought-provoking, and aligned with the values of responsible and innovative engineering.



Glimpses of Visit



PSK Technologies pvt ltd



AIM:

To expose First Year Engineering students to practical aspects of IT training, software development, and emerging digital technologies through an industrial visit to PSK Technologies Pvt. Ltd., Nagpur, with the objective of enhancing their awareness of industry requirements, technical skills, and career opportunities in the IT sector.



Objectives:

- To introduce students to real-world software development practices, programming frameworks, and training modules used in IT industries.
- To understand the role of various domains such as web development, app development, networking, and cybersecurity in a company's services.
- To explore how project planning, execution, and client interaction are managed in a professional software training and development company.
- To bridge the gap between theoretical learning and industrial application by observing IT tools, coding platforms, and workflow systems.
- To gain insights into IT industry expectations, skill sets required, and career development paths for engineering students.



Conclusion:

The industrial visit to PSK Technologies Pvt. Ltd., Nagpur, was a highly informative and motivating experience for the First Year Engineering students. It offered a real-time view of the software industry, including project development, technology training, and IT services. Students gained exposure to various fields like software programming, cybersecurity, networking, and digital marketing. This visit successfully sparked interest in IT careers and equipped students with a clearer vision of how their academic knowledge connects to future professional opportunities.



Glimpses of Visit



Guest lecture

LIST OF GUEST LECTURE

Sr. No.	Name of Guest	Topic	Branch	Date
1	Mr. Sharad Bansod	Web Development	CSE/IT/DS/AIML	25 Feb 2025
2	Mr. Abhay Nafdey	Digital Membrane Technologies for Water Softening Process	CE/ME/BT/AE/EE/ECE	26 Apr 2025
3	Mr. Shivaji Kuche	Motivational Lectures and Talks	CE/ME/BT/AE/EE/ECE	19 Apr 2025



Technical Workshop

TECHNICAL WORKSHOP

Sr. No.	Name of Guest	Topic	Branch	Date
1	Mr. Sarang Gurve	2 days Hands on Training on Frontend Development Using Bootstrap	CSE/IT/DS/AIML	9 May 2025 & 10 May2025



Technical Workshop

◆ AIM:

To provide First Year Engineering students from Software-related branches with practical exposure and foundational knowledge in Front-End Design using Bootstrap, through expert-led hands-on industrial training by Mr. Sarang Gurve.

◆ Objectives:

- To introduce students to the core principles and components of responsive web design.
- To provide practical skills in using Bootstrap framework for building modern and mobile-friendly websites.
- To demonstrate the integration of HTML, CSS, and Bootstrap classes for real-time front-end development.

■ Outcome:

- After completing the two-day training, students will:
- Understand the fundamentals of front-end web development using Bootstrap.
- Be capable of creating responsive and well-structured web pages.
- Gain hands-on experience in working with Bootstrap components, grids, and forms.
- Develop a mini-project or basic portfolio webpage using the skills learned.



**Inauguration of two days
workshop on Frontend
development using bootstrap**



**Workshop conduction on Frontend
development using bootstrap**



**Conducted by Mr Sarang Gurve from
IT networkz Pvt Ltd Nagpur**



Parents-Teachers Conclave

Aim:-

The aim of Parents-Teachers conclave is to provide platform for interaction between the parent and teachers.

Objectives:-

- To elaborate the knowledge about college and autonomy.
- Regular functioning of college activity and innovative practices.
- To distribute students scorecards and to felicitate the rankers.
- To make parents aware about college infrastructure, available courses, and the amenities (such as library, Laboratories, hostel, transport) to the parents.

Conclusion:

A Program “ Parents-Teacher Conclave 2023” is to be organize by Department of Basic

Sciences & Humanities of Tulsiramji Gaikwad Patil College of Engineering and Technology on 19th April 2025.

This Program is use to keep the Parents updated about their child's academic and overall

performance. It is crucial that along with teachers, parents should also be involved in their ward's learning process.



Department of Science and Humanities

Grants/Research Project



अखिल भारतीय तकनीकी शिक्षा परिषद्
All India Council for Technical Education

**VAANI Proposal from the First Year Department
is approved by AICTE, New Delhi for the Marathi
Language.**

FDP_Application_Number: 2289714324

Coordinator_Name: Dr Kanchan Rambhau Gopal

Institute_Name: TULSIRAMJI GAIKWAD-PATIL
COLLEGE OF ENGINEERING AND TECHNOLOGY

Institute_State: MAHARASHTRA

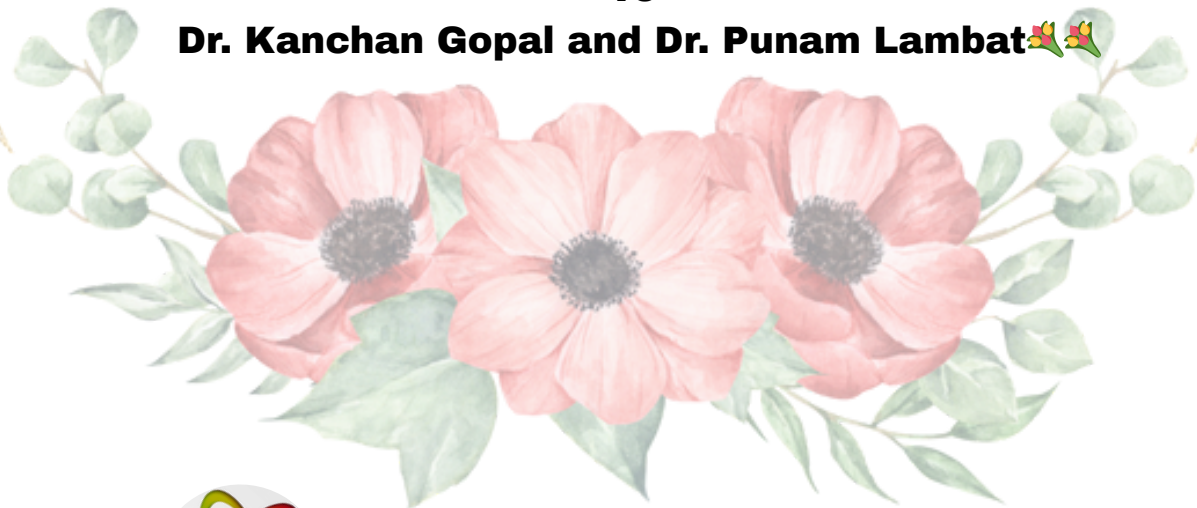
Thrust_Area: Energy, Sustainability & Climate Change

Title_of_FDP: SUSTAINABLE ENERGY MANAGEMENT
IN THE CONTEXT WITH CLIMATE CHANGE

Event_type: Marathi

Congratulations
To

Dr. Kanchan Gopal and Dr. Punam Lambat 🌸🌸



Department of Science and Humanities

NPTEL/FDP Achievements

NPTEL Certification

SN	Name of Faculty	Name of Course	Performance
1	Dr. Geeta Padole	Outcome based Padagogic principles for effective teaching	Elite
2	Dr. Mamta Takarkhede	Effective Engineering Teaching in Practice	Elite + Silver
3	Dr. Mamta Takarkhede	Introduction to Professional Scientific Communication	Elite + Silver
4	Dr. Mamta Takarkhede	Leadership and Team Effectiveness	Elite
5	Dr. Mamta Takarkhede	Qualitative Research Methods and Research Writing	Completed
6	Dr. Mamta Takarkhede	Ethics in Engineering Practice	Completed
7	Mr. Sourabh Umredkar	Outcome based Padagogic principles for effective teaching	Elite
8	Prof. Nadir Hussain	Outcome based Padagogic principles for effective teaching	Elite
9	Prof. Pranjali Lute	Accreditation and Outcome Based Learning	Elite
10	Prof. Pranjali Lute	Teaching and Learning in Engineering (TALE)	Elite
11	Prof. Pranjali Lute	Roadmap for patent Creation	Completed



NPTEL Certification

Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
GEETA PAPOLE
for successfully completing the course

Outcome Based Pedagogic Principles for Effective Teaching

with a consolidated score of **62 %**

Online Assignments	21.67/25	Proctored Exam	40.5/75
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Total number of candidates certified in this course: **1021**

Feb-Mar 2025
(4 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL25GE37S652802492 To verify the certificate No. of credits recommended: 1 or 2

Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
NADIR AHSAN MUSHTAQUE HUSAIN
for successfully completing the course

Outcome Based Pedagogic Principles for Effective Teaching

with a consolidated score of **64 %**

Online Assignments	25/25	Proctored Exam	39/75
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Total number of candidates certified in this course: **1021**

Feb-Mar 2025
(4 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL25GE37S552800995 To verify the certificate No. of credits recommended: 1 or 2

Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
MAMTA VINOD TAKARKHEDE
for successfully completing the course

Effective Engineering Teaching In Practice

with a consolidated score of **85 %**

Online Assignments	24.83/25	Proctored Exam	60.02/75
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Total number of candidates certified in this course: **865**

Jan-Feb 2025
(4 week course)

Prof. Andrew Thangaraj
Chair
Centre for Outreach and Digital Education, IITM

Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL25GE09S440301371 To verify the certificate No. of credits recommended: 1 or 2

Elite
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
MAMTA VINOD TAKARKHEDE
for successfully completing the course

Introduction to Professional Scientific Communication

with a consolidated score of **79 %**

Online Assignments	21.67/25	Proctored Exam	57/75
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Total number of candidates certified in this course: **1189**

Jan-Feb 2025
(4 week course)

Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

swayam

Roll No: NPTEL25BT26S340300407 To verify the certificate No. of credits recommended: 1 or 2

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
MAMTA VINOD TAKARKHEDE
for successfully completing the course

Qualitative Research Methods and Research Writing

with a consolidated score of **52 %**

Online Assignments	21.72/25	Proctored Exam	30/75
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Total number of candidates certified in this course: **913**

Jan-Apr 2025
(12 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL25GE27S552801276 To verify the certificate No. of credits recommended: 3 or 4

NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

This certificate is awarded to
MAMTA VINOD TAKARKHEDE
for successfully completing the course

Ethics in Engineering Practice

with a consolidated score of **57 %**

Online Assignments	22.92/25	Proctored Exam	34.5/75
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Total number of candidates certified in this course: **2305**

Feb-Apr 2025
(8 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL25MG67S1252803319 To verify the certificate No. of credits recommended: 2 or 3



NPTEL Certification

**Elite**
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

**Skill India**
कौशल भारत - कुशल भारत

This certificate is awarded to
MAMTA VINOD TAKARKHEDE
for successfully completing the course

Leadership and Team Effectiveness

with a consolidated score of **63** %

Online Assignments	24.69/25	Proctored Exam	38.25/75
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Total number of candidates certified in this course: 8978

Jan-Apr 2025
(12 week course)

Prof. Kaushik Ghosh,
Professor (Chemistry),
Coordinator CEC

Prof. Ranjana Pathania,
Professor (BSSE),
Coordinator (NPTEL)

Indian Institute of Technology Roorkee

Roll No: NPTEL25MG38S1152803117 To verify the certificate No. of credits recommended: 3 or 4

**Elite**
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

**Skill India**
कौशल भारत - कुशल भारत

This certificate is awarded to
SAURABH UMREDKAR
for successfully completing the course

Outcome Based Pedagogic Principles for Effective Teaching

with a consolidated score of **70** %

Online Assignments	25/25	Proctored Exam	44.51/75
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Total number of candidates certified in this course: 1021

Feb-Mar 2025
(4 week course)

Prof. Haimanti Banerji,
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

Roll No: NPTEL25GE37S652800520 To verify the certificate No. of credits recommended: 1 or 2

**Elite**
NPTEL ONLINE CERTIFICATION
(Funded by the MoE, Govt. of India)

**Skill India**
कौशल भारत - कुशल भारत

This certificate is awarded to
PRANJALI
for successfully completing the course

Accreditation and Outcome Based Learning

with a consolidated score of **60** %

Online Assignments	19.13/25	Proctored Exam	41.21/75
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Total number of candidates certified in this course: 1675

Aug-Oct 2024
(8 week course)

Prof. Haimanti Banerji,
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

Roll No: NPTEL24GE66S953101402 To verify the certificate No. of credits recommended: 2 or 3

**Elite**
NPTEL Online Certification
(Funded by the MoE, Govt. of India)

**Skill India**
कौशल भारत - कुशल भारत

This certificate is awarded to
PRANJALI
for successfully completing the course

Teaching And Learning in Engineering (TALE)

with a consolidated score of **62** %

Online Assignments	19.58/25	Proctored Exam	42.75/75
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Total number of candidates certified in this course: 474


Jan-Feb 2023
(4 week course)


Prof. G. L. Sivakumar Babu,
Chairman, Center for Continuing Education
IISc Bangalore

Prof. L. Umanand,
NPTEL Coordinator
IISc Bangalore

Indian Institute of Science Bangalore

Roll No: NPTEL23GE24S35240110 To validate the certificate No. of credits recommended: 1 or 2

**NPTEL-AICTE**
Faculty Development Programme
(Funded by the MoE, Govt. of India)

**AICTE**
आर्य समाज

This certificate is awarded to
PRANJALI
for successfully completing the course

Roadmap for Patent Creation

with a consolidated score of **53** %

Prof. Andrew Thangaraj,
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

Roll No: NPTEL24GE29S550400165 Duration of NPTEL course : 8 Weeks

The candidate has studied the above course through MOOCs mode, has submitted online assignments and passed proctored exams.
This certificate is therefore acceptable for promotions under CAS as per AICTE notifications dated 18th Nov, 2023, similar to other refresher / orientation courses.
F.No. AICTE / RIFD / FDP through MOOCs / 2023



NPTEL & Research Paper Publications Certificates



Global Academic Research Excellence Awards
Best Researcher Award in field of Mathematical Science



Department of Science and Humanities

Extra Curricular Activities

AAGHAAZ Freshers



Department of Science and Humanities

Departmental News

FROM THE COLLEGES

TGPCET



DEPARTMENT of Basic Sciences and Humanities, of Tulsiramji Gaikwad-Patil College of Engineering and Technology, (TGPCET) had successfully conducted an insightful industry expert lecture on Web Development for B Tech. students. The session began with the lamp lighting by the hands of the chief guest, Sharad Bansod, along with Dr P L Naktode – Principal, Dr Mamta Takarkhede, Prof Nadir Husain, HoDs, BS&H and First year faculties. Sachika Singh anchored and proposed the vote of thanks. Dr Mohan Gaikwad-Patil, Chairman, GPPI, Akash Gaikwad-Patil, Vice- Chairman, GPPI, Dr Sandeep Gaikwad-Patil Treasurer, GPPI, Dr P L Naktode, Principal, Dr Pragati Patil-Bedekar, Vice-Principal supported in organising this guest lecture. The Guest Lecture was planned and coordinated by Faculty member Prof Kalyani Bhambre along with other faculties.

इंजीनियरिंग सामग्री, गणितीय मॉडलिंग और प्रौद्योगिकी में इसके अनुप्रयोगों में हालिया रुझानों पर राष्ट्रीय स्तर पर एक सप्ताह के संकाय विकास कार्यक्रम का उद्घाटन

K by Khabarbat™ — August 13, 2024 in Education



गायकवाड अभियांत्रिकीत व्यक्तिमत्त्व विकास कार्यशाळा तुळशीरामजी गायकवाड-पाटील कॉलेज ऑफ इंजिनिअरिंग अँड टेक्नॉलॉजीच्या मूलभूत विज्ञान विभागाच्यावतीने १३ जुलैला एकात्मिक व्यक्तिमत्त्व विकास अभ्यासक्रमावर कार्यशाळा पार पडली. प्रमुख पाहुणे म्हणून प्रा. हरिकृष्ण गोहिल (सुरत), प्राचार्य डॉ. पी.एल. नाकतोडे, उपप्राचार्य डॉ. प्रगती पाटील, उपप्राचार्य, डॉ. ममता टाकखेडे, प्रा. नादिर हुसेन उपस्थित होते. प्रा. अनुप गाडे यांचे समारोपीय भाषण झाले.

18/07/2024 | Nagpur | Page : 10
Source : <https://epaper.loksatta.com>

गायकवाड-पाटील ग्रुप ऑफ इन्स्टिट्यूशन्सने साजरा केला प्रेरणा दिवस

K by Khabarbat™
May 2, 2024



Freshers Day – AAGHAAZ Organized by Department of Basic Sciences and Humanities of Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur

K by Khabarbat™ — October 16, 2024 in Education



टीजीपीसीईटीमध्ये पालक-शिक्षक संमेलनाचे यशस्वी आयोजन

K by Khabarbat™ — December 7, 2024 in Education, latest News



‘वैदिक गणित’ या विषयावर दोन दिवसीय कार्यशाळा गायकवाड इंजिनिअरिंग कॉलेजात संपन्न

संपुष्टात घ्याये

मुम्बई : मूलभूत विज्ञान आणि मानवी विभागाच्या वतीने तुळशीरामजी गायकवाड-पाटील कॉलेज ऑफ इंजिनिअरिंग अँड टेक्नॉलॉजीत दोन दिवसीय वैदिक गणितावर कार्यशाळा पार पडली. प्रमुख पाहुणे म्हणून प्रा. हरिकृष्ण गोहिल (सुरत), प्राचार्य डॉ. पी.एल. नाकतोडे, उपप्राचार्य डॉ. प्रगती पाटील, उपप्राचार्य, डॉ. ममता टाकखेडे, प्रा. नादिर हुसेन उपस्थित होते. प्रा. अनुप गाडे यांचे समारोपीय भाषण झाले.

टी. पी. एल. नाकतोडे यांनी केले. गणितातील सगळ्या सोडण्याची कीस वेळोवेळी वापरण्यासाठी त्यांनी वैदिक गणिताचे महत्त्व स्पष्ट केले. सध्याची पूर्व-मुलाखत यादवीसुद्धा ऐक्यत आली आहे. वैदिक गणिताच्या पद्धतीचा सगळा वैदिक गणिताच्या रहस्यावर (वापक, गणित आणि सुत्रे) पार प्रमुख पाहुणे स्वनील बंदनखेडे यांनी वैदिक परंपरेतून ऐक्यत गणिताच्या वैदिक गणितातील प्रयोगापासून प्रत्येक वैदिक गणिताचे मायमुल्य केले. ईश्वरीय वास्तव वैदिक गणिताचे वास्तविक उपयोग दाखवून, सर्व शोधप्रमाणांनी आणि गुणावर सगळ्या कल्पनासाठी त्यांनी कल्पक पद्धती स्पष्ट केल्या. पुढे हे सगळे मानवीय प्रमुख पाहुणांनी वास्तव केले. सगळ्या बंदनखेडे यांनी गुणावर सगळ्या स्पष्ट करण्यासाठी तिचे मायमुल्यपूर्ण तंत्र, संशोधन सोप्यासाठी सगळ्या वापर करून दाखवले. दुसऱ्या दिवशीही दुसऱ्या



सगळा भारतीय गणितातल्या जीवनातील लसकरापासूनही शरीरत या विषयावर स्वनील बंदनखेडे यांनी सगळ्यापासूनही परिधानीय शरीरात अपास केला. प्रथमतः गणितात समजून घेण्याची वेळनात अभ्यास करून बंदनखेडे यांनी ज्ञानिकता आणि दुर्लभतासाठी कला उलगडली. १०० वर्ष वैदिक शेत वर आपणित संपूर्ण परिधाने दुसऱ्या दिवसाच्या तिसऱ्या सगळा वैदिक गणितातले

वेदिक आणि काव्याची सगळ्या तत्वातील विज्ञान स्पष्टीकरणाने शोधांना मोहित केले आणि गणिताच्या क्रियांचे एक मनीस दुर्लभतेने प्रदान केले. सगळ्या शेट्टी मूल्यमापनेतर वाचपी ऐक्यत आली. या कार्यक्रमाची सगळा एका शरीरताली संदेशाने झाली: एक पदारी जवळी शोधासाठी, जवळी सगळ्या उल्लेखिताची प्रदान केले पहिले आणि कलेर परिधान आणि सर्वसाथे मूल्य आत्मसात केले पहिले, समारोपचे विवेचन डॉ. ममता टाकखेडे, एम.पी.टी. प्रथम वर्ष यांनी केले. प्रा. पुष्पा शर्मा आणि प्रा. मीनाक्षी विजय, सगळ्या करके, जवळी शेट्टी, शरीरताली शेट्टी आणि प्रतीक पदारी यांनी सगळ्यापासून धुन सगळ्याली. शरीर वरके आणि विज्ञान सगळा यांनी आपणित मानले, तर कार्यक्रमाची सगळा सगळ्यात साजरा करण्यात आली.

Departmental News

Intl meet on Indian Knowledge System and Science begins



The guests during the inauguration of an international conference organised by TGPCET.

The 10th international conference on Indian Knowledge System Science and Spirituality for Advancing Technology (IC- IKSAT 2K24) began at Tulsiramji Gaikwad-Patil College of Engineering & Technology (TGPCET) on Friday. The inaugural function commenced at Brahmakumari's Vishwa Shanti Sarovar, Nagpur, with

the traditional lamp lighting ceremony. The chief guest, BK Bala Kishor Batchu, Zisis Rousopoulos and Dr Sachin L Borse expressed their thoughts. Chairman GPGL, Nagpur Dr Mohan Gaikwad-Patil, vice-chairman Akash Gaikwad Patil, treasurer Dr Sandeep Gaikwad and vice-principal Prof Pragati Patil were present on the occasion.

'Vedic Mathematics important to enhance problem-solving skills'

TGPCET organises workshop on Vedic Mathematics

LOKMAT NEWS NETWORK
NAGPUR

Principal of TGPCET, Dr P L Naktode, has said that Vedic Mathematics is extremely important for enhancing mathematical problem-solving skills. He was speaking during the inauguration of a two day workshop on Vedic Mathematics organised by Department of Basic Sciences and Humanities of Tulsiramji Gaikwad-Patil College of Engineering and Technology at JRD Tata Hall recently. Founders of S&SPL Swapnil Chandankhede said various mathematical tricks



Dignitaries during a two-day workshop on Vedic Mathematics organised by TGPCET at JRD Tata Hall.

can be derived from Vedic Scriptures. He captivated the students with ingenious methods of finding squares and simplifying multiplication, demonstrating the practical applications of Vedic maths in everyday calculations. Swapnil Chandankhede during his talk on the topic 'The Power of Positivity From the Life of Indian Mathematicians: delved into the transformative power of positivity. Through the life of the legendary Math-

ematician Ramanujan, Chandankhede he unfolded a narrative of resilience and determination. Chief guest Swagata Chandankhede showcased innovative techniques, particularly the utilisation of rangoli patterns to elucidate multiplication concepts. While dealing with the topic 'The Math Magic Show' she captivated the students with her explanation of the principles

of addition and subtraction through Vedic Mathematics offering a fresh perspective on mathematical operations. Post-Evaluation test was conducted at the end of the session. Principal of TGPCET, Dr P L Naktode, vice-principal, TGPCET, Prof Pragati Patil, Dr Mamta Takarkhede and head (first year) Prof. Nadir Husain and a large number of students were present on this occasion.

तुळशीरामजी गायकवाड महाविद्यालयात प्रथम वर्षाच्या विद्यार्थ्यांचा प्रवेश समारंभ संपन्न



दै. दिव्य वतन, नागपूर

नवीन शैक्षणिक सत्राच्या सुरुवातीसह, तुळशीरामजी गायकवाड पाटील अभियांत्रिकी आणि तंत्रज्ञान महाविद्यालयाच्या मूलभूत विज्ञान आणि मानविकी विभागातर्फे, ०४ सप्टेंबर २०२४ ला प्रथम वर्षाच्या विद्यार्थ्यांचा प्रवेश समारंभ आयोजित करण्यात आला. सदर आयोजनात सर्व विद्यार्थी उपस्थित होते. तर 'नवीन विद्यार्थ्यांना नवीन वातावरणात जुळवून घेण्यास आणि आरामदायक वाटण्यास मदत करणे. त्यांच्यामध्ये संस्थेची नैतिकता आणि संस्कृती बिंबवून, त्यांना इतर विद्यार्थी आणि प्राध्यापक सदस्यांशी बंध निर्माण करण्यास मदत करणे आणि त्यांना मोठ्या उद्देशाची जाणीव करून देण्याअंतर्गत सदर कार्यक्रमाचे आयोजन करण्यात आले होते. प्रामुख्याने शाळेपासून विद्यापीठ/महाविद्यालयीन जीवनातील संक्रमण ही विद्यार्थ्यांच्या जीवनातील सर्वात आव्हानात्मक घटनांपैकी एक आहे. जेव्हा नवीन विद्यार्थी संस्थेत प्रवेश करतात तेव्हा ते विविध विचार, पार्श्वभूमी आणि तयारी घेऊन येतात. सदर कार्यक्रमात प्रमुख पाहुणे, किशोर ठाकरे, व्हाइस-अॅडमिरल, पाणबुडी तज्ञ, अतिथी मा. अजय अग्रवाल, अग्रवाल ग्रुप ऑफ कंपनीजचे संचालक, डॉ. मोहन गायकवाड पाटील, अध्यक्ष, जीपीजीआय, डॉ. मोहन गायकवाड-पाटील, कोषाध्यक्ष, जीपीजीआय, प्रा. गीता पडोळे, गायकवाड-पाटील, संचालक, प्रवेश कक्ष, डॉ. पी. एल. नाकतोडे, प्राचार्य डॉ. प्रगती पाटील, उपप्राचार्य डॉ. कुलसचिव डॉ. अमेय खेडीकर, प्रा. रितेश बनपूरकर, डीन आयक्यूएसी डॉ. अनुप गाडे, डीन अॅकॅडेमिक्स, डॉ. संजय आसुटकर, एचओडी, ईसीई, आदी मान्यवरांनी विचार, कृती, सांघिक कार्य, संधी यांचे महत्त्व आणि पालक आणि शिक्षकांचा आदर करण्यास सांगितले. सदर कार्यक्रमाचे सूत्रसंचालन आणि आभार प्रा. अमिषा मालवीय यांनी मानले. कार्यक्रमाचे आयोजन प्रा. नादिर हुसेन आणि डॉ. ममता टाकरखेडे, मूलभूत विज्ञान आणि मानविकी विभागाच्या अधिकाऱ्यांच्या मार्गदर्शनाखाली आयोजित करण्यात आले.

Annual social gathering Utkarsh-2K24 held at TGPCET



The guests during inaugural function of annual social gathering Utkarsh-2K24 at TGPCET.

The annual social gathering Utkarsh-2K24 of Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) was celebrated recently. The inauguration of the annual social gathering took place at the hands of executive director of Maha-Metro Naresh Gurbani, principal of St Clare School Father Martin, principal of St Apolis School Dr Vandana Benjamin and RJ Nisha in

the presence of vice-chairman Akash Gaikwad Patil, treasurer Dr Sandeep Gaikwad, principal Dr P L Naktode, principal Prof Vandana Khante, vice-principal Prof Pragati Patil, staff members and students. On the last day, the prize distribution function took place in presence of Priyanka Giripunje, the Mrs India Global Queen, RJ Nisha and others. The event concluded with the vote of thanks.

Department of Basic Sciences & Humanities had conducted Guest Lecture during Induction Program- SAGE on Day - 3

K by Khabarbat™ — September 18, 2024 in Education



Media Coverage



INSTAGRAM:

<https://www.instagram.com/tgpcet1st/>



FACEBOOK:

<https://www.facebook.com/tgpcet1styear>



YOUTUBE:

<https://www.youtube.com/@firstyeartgpcet1551>

