

# CODE CRUNCH

DEPARTMENT NEWSLETTER

## HIGHLIGHTS

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## WELCOME

Welcome to **Code Crunch**, the official newsletter of the Department of Computer Science & Engineering. This edition brings together the achievements, innovations, and activities of our vibrant academic community. It showcases the technical growth of our students, the dedication of our faculty, and the continuous efforts of the department in nurturing future-ready engineers. We hope this issue inspires you informed, and reflects our commitment to excellence in learning, research, and innovation.

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CODE CRUNCH

DEPARTMENT OF COMPUTER SCIENCE  
AND ENGINEERING | TGPCET, NAGPUR

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# From the **Chairman's Desk**

***“Education is the most powerful tool to transform potential into performance and dreams into reality.”***

With a deep commitment to academic excellence and societal development, Dr. Mohan Gaikwad-Patil has been a guiding force behind the growth of the Gaikwad-Patil Group of Institutions. His vision is rooted in creating an education system that not only imparts theoretical knowledge but also develops practical skills, innovation, and leadership qualities required to meet the challenges of the modern world.

Understanding the rapidly changing demands of industry and society, he envisioned institutions that bridge the gap between classroom learning and real-world applications. Under his dynamic leadership, the group has evolved into a reputed center of learning, offering diverse programs across engineering, management, health sciences, and allied fields, with a strong focus on quality, discipline, and holistic development.

Dr. Gaikwad-Patil's youthful energy, forward-thinking approach, and unwavering dedication continue to inspire students, faculty, and staff alike. His belief in nurturing talent, encouraging innovation, and fostering ethical values forms the foundation of the institution's culture. Through continuous improvement and a learner-centric approach, the Gaikwad-Patil Group of Institutions strives to shape confident professionals and responsible citizens who will contribute meaningfully to the nation and the global community.



**DR. MOHAN GAIKWAD-PATIL**

Chairman, Gaikwad-Patil Group



# *Principal's Desk*

**DR. P. L. Naktode**  
Principal TGPCET

***"Inspiring Minds, Shaping the Future through Technology and Values"***

It gives me immense pleasure to present this edition of *CODE CRUNCH*, the newsletter of the Department of Computer Science & Engineering. In today's rapidly evolving digital era, technology is not only transforming industries but also redefining the way we learn, think, and innovate. Our institution remains committed to providing an academic environment that nurtures creativity, critical thinking, and a strong sense of responsibility among students.

At Tulsiramji Gaikwad Patil College of Engineering & Technology, we strive to create a culture of excellence where knowledge is complemented by practical exposure, ethical values, and a spirit of innovation. The achievements of our students and faculty in academics, research, placements, and co-curricular activities reflect the collective efforts of our entire academic community.

This newsletter is a platform that highlights these accomplishments and captures the dynamic journey of our department. I am confident that our students will continue to explore new frontiers of technology, contribute meaningfully to society, and emerge as competent professionals and responsible citizens.

I extend my best wishes to the editorial team for their sincere efforts and to all the students for a bright and successful future. May you continue to learn, innovate, and lead with confidence.

I wish you the very best in all your endeavors.



## *Vice Principal's Desk*

**Dr. Pragati Patil**

**Vice Principal**

### ***Inspiring Excellence, Empowering Innovation through Technology and Values***

It is a matter of great pride and satisfaction to present this edition of *CODE CRUNCH*, the newsletter of the Department of Computer Science & Engineering. In an age driven by rapid technological advancement, it is essential that students not only acquire technical knowledge but also develop the ability to think critically, innovate creatively, and uphold strong ethical values.

At Tulsiramji Gaikwad Patil College of Engineering & Technology, we are committed to creating a holistic academic environment where learning is enriched through practical exposure, industry interaction, and research-oriented activities. The continuous achievements of our students and faculty in academics, technical competitions, research, placements, and co-curricular pursuits reflect the dedication and progressive vision of the institution.

This newsletter serves as a mirror of the department's vibrant academic culture and its journey towards excellence. It documents the collective efforts, initiatives, and accomplishments that contribute to shaping competent professionals and responsible citizens for the future.

I congratulate the Department of Computer Science & Engineering and the editorial team for their commendable work in bringing out this issue of *CODE CRUNCH*. I wish all our students continued success in their academic and professional endeavors. May you continue to learn with curiosity, innovate with confidence, and contribute positively to society.

**Dr. Pragati Patil**

Vice Principal

Tulsiramji Gaikwad Patil College of Engineering & Technology



*To emerge as 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.

# COMPUTER SCIENCE DEPARTMENT

Established with B.E. CSE in the year 2007-08 with an intake of 150 and M. Tech CSE in 2011-12 with an intake of 18. Department focus on Research and training activities are based on - Advanced computational methods for modeling, analyzing, and solving complex tasks in technology and science. Fundamental computer science methods for the analysis of large and high- dimensional data sets For the modeling and design of complex software, networking and other computational systems. Exposing students to the developments in the field of computing, thereby enabling them to meet the needs of the IT industry and research organizations in India and abroad.



## VISION OF THE DEPARTMENT

To become a centre of excellence for nurturing the quality Computer Science & Engineering professionals to cater the needs of industry and society.



## MISSION OF THE DEPARTMENT

- To achieve academic excellence by imparting in-depth knowledge to the students through effective pedagogies and hands on experience on latest tools and technologies.
- Inculcating professional behavior, strong ethical values, innovative research capabilities and leadership abilities in graduates.



## *Message From Hod*

**Dr. Swapnili Karamore**

Head of Computer Science

I'm excited to introduce "Byte Code", our department's magazine dedicated to bridging the gap between academics and industry. Through insightful guest lectures, engaging industrial visits, and inspiring alumni stories, Byte Code enriches students' learning experiences and connects theoretical concepts with real-world applications. Explore Byte Code to see how we bring industry expertise to the classroom and showcase our commitment to educational excellence. Discover our department's achievements and innovations in each issue!



# PROGRAM OUTCOME

- **PO1: Engineering Knowledge:** Apply knowledge of mathematics, natural science, computing, engineering fundamentals and an engineering specialization as specified in WK1 to WK4 respectively to develop the solution of complex engineering problems.
- **PO2: Problem Analysis:** Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions with consideration for sustainable development. (WK1 to WK4)
- **PO3: Design/Development of Solutions:** Design creative solutions for complex engineering problems and design/develop systems/ components/ processes to meet identified needs with consideration for the public health and safety, whole-life cost, net zero carbon, culture, society and environment as required. (WK5)
- **PO4: Conduct Investigations of Complex Problems:** Conduct investigations of complex engineering problems using research-based knowledge including design of experiments, modelling, analysis & interpretation of data to provide valid conclusions. (WK8).
- **PO5: Engineering Tool Usage:** Create, select and apply appropriate techniques, resources and modern engineering & IT tools, including prediction and modelling recognizing their limitations to solve complex engineering problems. (WK2 and WK6)
- **PO6: The Engineer and The World:** Analyze and evaluate societal and environmental aspects while solving complex engineering problems for its impact on sustainability with reference to economy, health, safety, legal framework, culture and environment. (WK1, WK5, and WK7).

# PROGRAM OUTCOME

- **PO7: Ethics:** Apply ethical principles and commit to professional ethics, human values, diversity and inclusion; adhere to national & international laws. (WK9)
- **PO8: Individual and Collaborative Team work:** Function effectively as an individual, and as a member or leader in diverse/multi-disciplinary teams.
- **PO9: Communication:** Communicate effectively and inclusively within the engineering community and society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations considering cultural, language, and learning differences
- **PO10: Project Management and Finance:** Apply knowledge and understanding of engineering management principles and economic decision-making and apply these to one's own work, as a member and leader in a team, and to manage projects and in multidisciplinary environments.
- **PO11: Life-Long Learning:** Recognize the need and have the preparation and ability for i) independent and life-long learning ii) adaptability to new and emerging technologies and iii) critical thinking in the broadest context of technological change. (WK8)

## Program Education Outcome

- ❖ PEO1: Apply mathematical knowledge mathematics and logical programming to frame engineering solutions in the computing domain.
- ❖ PEO2: Analyze the real life problems and apply latest tools for developing software solutions.
- ❖ PEO3: Apply emerging technology by communicating effectively as a team.
- ❖ PEO4: Enhance the quality, security, privacy, cost utility, iquette and ethics by their computing abilities.
- ❖ PEO5: Adapt emerging technology and advances in careers for fulfilling the societal needs to protect the environment for lifelong learning.

## Program Specific Outcome

- ❖ PSO 1 - Basic Fundamental: Analyse fundamental knowledge of computer science to analyze complex problem and design effective solution.
- ❖ PSO 2 - Design and Implementation: Apply modern tool to solve engineering, societal problem and communicate effectively as team member in software project management.
- ❖ PSO 3 – Higher Studies and Entrepreneur: The ability to use modern computer technologies to create career paths for higher studies and entrepreneurship, also inculcate moral values and ethics for lifelong learn

# Editorial Board

## From the Editorial Desk

Welcome to **CODE CRUNCH**, the official newsletter of the Department of Computer Science & Engineering. It gives me great pleasure to present this edition, which highlights the academic, technical, and co-curricular activities of our department and the achievements of our students, faculty, and alumni.

This newsletter brings together important updates such as industrial visits, expert lectures, workshops, research contributions, student accomplishments, and alumni milestones. It serves as a medium to share information, document progress, and showcase the continuous growth of our department in academics, innovation, and industry interaction.

**CODE CRUNCH** is an effort to keep our academic community connected and informed while encouraging a culture of learning, collaboration, and excellence. I sincerely appreciate the efforts of the editorial team and all contributors who have worked diligently to make this issue possible.

I hope this newsletter proves to be informative, inspiring, and reflective of our department's vibrant journey.

**Happy**

*Prof. Shubhkirti Bodkhe*

**Reading!**



**Prof. Shubhkirti Bodkhe**

# Chief Editor



**Mr. Ritesh Suresh  
Pandhare  
3rd Year (6th Sem)**

It is with great enthusiasm that I present this edition of *Code Crunch*, the departmental newsletter that reflects the academic growth, technical activities, and achievements of the Computer Science & Engineering fraternity. This newsletter aims to serve as a platform to share knowledge, showcase innovation, and highlight the continuous efforts of our students and faculty in keeping pace with the rapidly advancing world of technology.

*Code Crunch* is a collective expression of learning beyond classrooms, capturing technical events, industrial exposure, research initiatives, and student accomplishments. It stands as a testament to the vibrant and progressive environment of our department, which is steadily growing in both academic excellence and industry relevance.

I sincerely appreciate the dedication and hard work of the editorial team and all contributors who have made this issue possible. I hope this newsletter informs, inspires, and motivates our readers to explore new ideas, enhance their skills, and strive for excellence in every endeavor.

**Ritesh**

Chief

CSE, 3rd Year, 6th Semester

**Pandhare**

Editor

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# Industrial Visit Report: TGPCET CSE Students Visit RCOEM–TATA CIIT Centre

**Name of Event:** Industrial Visit to “CIIT – RCOEM TATA Center”

**Date:** 22nd July 2025

Event Coordinator: Prof. Bramhadeo Wadibhasme

The Department of Computer Science and Engineering, Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET), organized an industrial visit for second-year students to the RCOEM–TATA Technologies CIIT Centre, Nagpur, on 22nd July 2025. The visit was aimed at providing students with practical exposure to advanced Industry 4.0 technologies and modern manufacturing practices.

During the visit, students gained valuable insights into emerging technologies such as the Internet of Things (IoT), Machine Learning, Smart Manufacturing, and 3D Printing. They had the opportunity to observe and interact with state-of-the-art equipment including robotic arms, CNC and VMC machines, and advanced design and simulation software. The session was guided by Dr. Y. M. Sonkhaskar, Centre Coordinator, CIIT, who explained the industrial applications and future scope of these technologies.



**CSE Students Visit RCOEM–TATA CIIT Centre**

The industrial visit was successfully coordinated by Prof. Bramhadeo Wadibhasme under the guidance of Dr. Lowlesh Yadav, Head of the Department, CSE. The initiative received strong support from the management of TGPCET, including Dr. Mohan Gaikwad-Patil (Chairman, GPG), Mr. Akash Gaikwad-Patil (Vice-Chairman), Mr. Sandeep Gaikwad (Treasurer), Dr. P. L. Naktode (Principal), and Dr. Pragati Patil (Vice-Principal).

The visit proved to be highly beneficial for students, bridging the gap between theoretical knowledge and industrial practices, and motivating them to explore cutting-edge technologies in their future careers.

# CSI Chapter and Forum Reinstallation Ceremony Held at Tulsiramji Gaikwad Patil College of Engineering and Technology

Mohgaon Nagpur July 26

On 26th July 2025, the Department of Computer Science & Engineering successfully organized the CSI (Computer Society of India) Chapter and Forum Reinstallation Program at JRD Hall. The event marked the formal induction of the new student body for the academic year and reflected the department's continuous efforts to promote technical excellence and professional development among students.

The ceremony was conducted in a dignified and enthusiastic atmosphere, with faculty members and students in attendance. The newly appointed office bearers of the CSI Forum were introduced and felicitated.

The new forum post holders are:

- President – Mr. Ranamandeep Singh
- Vice-President – Mr. Aditya Thakre
- Treasurer – Mr. Shubham Sharnagate
- Secretary – Ms. Arya Gaydhane
- Joint-Secretary – Mr. Avdhut Jadhav



**Forum reinstallation by the Faculty of CSE**

The forum will function under the able guidance of the Forum Coordinator, **Prof. Snehal Rewatkar**, whose continuous support and leadership play a vital role in the smooth functioning and growth of the CSI activities in the department.

The program emphasized the importance of professional bodies like CSI in enhancing students' technical knowledge, leadership skills, and industry exposure. The event concluded with a motivational address and a vote of thanks, encouraging the newly formed team to work with dedication and innovation for the success of upcoming technical activities.

# TGPCET Hosts Expert Lecture on Edge Computing and IoT

Mohgaon : 24th July 2025

The Department of Computer Science and Engineering at Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET) organized an expert lecture on **“Edge Computing and IoT: Redefining Network Efficiency in Smart Systems”** on 24th July 2025. The session aimed to provide students with insights into emerging network technologies and their real-world industrial applications.

The lecture was delivered by Mr. Raj Arora, Director of Revat Network Pvt. Ltd., Nagpur, who shared his expertise on smart network architectures, the role of edge computing in reducing latency, and the integration of IoT in modern smart systems. He also conducted a practical demonstration using Cisco Packet Tracer, helping students understand network design, configuration, and performance analysis.

The session proved highly beneficial for third-year and final-year students, especially those studying subjects such as Computer Networks and Adhoc Sensor Networks. It enhanced their understanding of Industry 4.0 concepts and modern communication technologies, bridging the gap between



Expert Lecture on Edge Computing and IoT

theoretical learning and practical implementation.

The event was successfully coordinated by Prof. Bramhadeo Wadibhasme under the guidance of Dr. Lowlesh Yadav, Head of the Department, CSE. The initiative received strong support from the visionary management of TGPCET, including Hon'ble Dr. Mohan Gaikwad-Patil (Chairman, GPG), Mr. Akash Gaikwad-Patil (Vice-Chairman), Mr. Sandeep Gaikwad (Treasurer), Dr. P. L. Naktode (Principal), and Dr. Pragati Patil (Vice-Principal). Their continuous encouragement plays a vital role in strengthening industry–academia collaboration and enriching the learning experience of students.

# Expert Lecture on Emerging Technologies and Career Opportunities at TGPCET

Mohgaon, Nagpur 26 July 2025

The Department of Computer Science and Engineering, Tulsiramji Gaiwad Patil College of Engineering and Technology (TGPCET), organized an expert lecture on 26th July 2025 at JRD TATA Hall with the objective of guiding students about the latest technological trends and career opportunities in the IT industry.

The session was delivered by **Mr. Smit Choudhary**, a seasoned IT professional and Project Manager at Tech Mahindra, MIHAN, Nagpur. With his rich industry experience, he provided valuable insights into the rapidly evolving technological landscape and the skills required to succeed in today's competitive job market.



The lecture was attended by students from Second, Third, and Final Year CSE along with faculty members. Mr. Choudhary discussed a wide range of important topics, including an overview of emerging technologies such as Artificial Intelligence (AI), Machine Learning (ML), Cloud Computing, Blockchain, and DevOps. He also highlighted current job trends in India and abroad, explaining how the demand for skilled professionals is shifting with advancements in digital transformation.

The expert lecture proved to be an enriching experience, bridging the gap between academic learning and industry requirements, and inspiring students to enhance their technical skills and professional outlook.



# Industrial Visit to Maharashtra Remote Sensing Application Center (MRSAC), Nagpur

**Mohgaon, Nagpur 24 Sep 2025**

The Department of Computer Science and Engineering organized an industrial visit for Second Year students to the Maharashtra Remote Sensing Application Center (MRSAC), Nagpur, on 24th September 2025. The visit was arranged with the objective of providing students with practical exposure to advanced technologies related to remote sensing, Geographic Information Systems (GIS), satellite data analysis, and their real-world applications.

During the visit, students were introduced to the functioning of MRSAC and its role in supporting government and research organizations through geospatial technologies. Experts from the center explained how satellite imagery and GIS tools are used in fields such as urban planning, agriculture, disaster management, environmental monitoring, and infrastructure development. The students also gained insights into data processing techniques, image interpretation, and the use of modern software tools for spatial analysis.



The interactive session allowed students to understand how concepts from computer science, such as data analytics, image processing, and machine learning, are applied in remote sensing applications. The visit helped bridge the gap between theoretical knowledge and practical implementation, motivating students to explore interdisciplinary domains and emerging career opportunities.

The industrial visit proved to be an enriching learning experience, enhancing students' awareness of cutting-edge technologies and their societal impact, and encouraging them to pursue innovation and research-oriented thinking in their academic journey.



# Two-Day Hands-On Workshop on Cyber Security at TGPCET

## Mohgaon, Nagpur 30 Aug 2025

The Department of Computer Science and Engineering, Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET), Nagpur, organized a Two-Day Hands-On Workshop on “Cyber Security” on 29th and 30th August 2025 at the Research Laboratory of the CSE Department. The primary objective of the workshop was to bridge the gap between theoretical knowledge and practical implementation by providing students with exposure to real-time cyber security tools and industry practices.

The workshop was conducted by Mr. Amol Rangari, Cyber Security Consultant at Cognizant, Nagpur, who has extensive experience in ethical hacking, penetration testing, incident response, and cloud security. He delivered comprehensive sessions on the current cyber threat landscape and the importance of securing digital systems in the era of Industry 4.0.



On the first day, students were introduced to the fundamentals of cyber security, information gathering techniques, and network scanning. Practical demonstrations included the use of Google Dorking for advanced search, reconnaissance activities, and scanning open ports and services using Nmap. The second day focused on packet sniffing and traffic analysis using Wireshark, basic website security concepts, secure coding practices, and real-time case studies of cyber incidents. Group activities and a final assessment helped reinforce the concepts learned during the sessions.

The workshop proved highly beneficial for students, as it enhanced their understanding of ethical hacking methodologies, defensive strategies, and the practical application of tools such as Kali Linux, Nmap, and Wireshark. It also motivated them to explore career opportunities and professional certifications in the cyber security domain.

Overall, the two-day program successfully strengthened technical skills and ethical approach towards cyber security challenges.



# Workshop on “YOLOv8: Object Detection – Real-Time Vision with State-of-the-Art Technology”

**Mohgaon, Nagpur 21 Sep 2025**

The Department of Computer Science and Engineering, TGPCET, Nagpur, organized a two-day workshop for 5th Semester students on “YOLOv8: Object Detection – Discover the Power of Real-Time Object Detection with the State-of-the-Art YOLOv8 Model” with the objective of enhancing academic learning through expert guidance and industry exposure.

The workshop aimed to introduce students to the fundamentals and advanced applications of real-time object detection using YOLOv8 and to familiarize them with modern tools and technologies in the domains of Artificial Intelligence, Machine Learning, and Computer Vision. It also focused on bridging the gap between classroom learning and real-world industrial applications, while creating awareness about industry expectations, required skill sets, and career opportunities in AI/ML and Computer Vision.

The expert team from NU Intelligence Pvt. Ltd., Nagpur, shared their industrial experience through technical sessions, live demonstrations, and real-time case studies. The program began with an overview of the evolution of YOLO models from YOLOv1 to YOLOv8 and their significance in intelligent systems. Students were trained in environment setup using Python, Anaconda, PyTorch, and OpenCV, followed by hands-on practice in installing and working with the YOLOv8 framework.



Practical sessions included training and testing on custom datasets, real-time object detection using webcam and video inputs, and mini-project implementation by student groups. Applications of YOLOv8 in areas such as autonomous systems, surveillance, traffic monitoring, robotics, and industrial automation were also discussed.

The workshop concluded with an interactive Q&A and project presentation session, where students showcased their work and received valuable feedback from the experts. The program proved highly beneficial in strengthening technical skills, encouraging innovation, and motivating students to pursue advanced learning and research in the field of AI, Machine Learning, and Computer Vision.

# Rising Star in Tech: Mohini Kamlakar Daf Makes Her Mark at National Platforms

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**Mohini Kamlakar Daf**, a student of Third Year, Sixth Semester, Department of Computer Science and Engineering, has made the department proud through her achievements in national-level technical platforms and industry internships.

She was selected as a **Marketing Intern for Shaastra**, the prestigious annual technical festival of **IIT Madras**, where she actively contributed to outreach and promotional activities. This experience provided her with exposure to professional communication, teamwork, and coordination at a large-scale national event.

Mohini also emerged as a **Finalist in the Re-React Hackathon** organized by **IIT Gandhinagar**, competing with participants from reputed institutions across India.



Her involvement in problem analysis, idea development, and technical execution demonstrated her innovation skills and strong problem-solving ability.

In addition, she successfully completed a **Web Development Internship at Neoshaan Technologies**, gaining hands-on experience in frontend development and UI design using **HTML, CSS, and JavaScript**. The internship strengthened her practical knowledge and project-building skills.

Her accomplishments reflect a balanced growth in technical expertise, creativity, and professional exposure. Mohini's journey stands as an inspiration to fellow students to actively participate in competitions, internships, and national-level events, and to continuously strive for excellence in both academics and real-world applications.



# CSE Students Excel in NPTEL Certifications: A Step Towards Academic and Technical Excellence

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The Department of Computer Science and Engineering, Tulsiramji Gaikwad-Patil College of Engineering and Technology (TGPCET), Nagpur, takes immense pride in congratulating its students for successfully completing prestigious NPTEL (National Programme on Technology Enhanced Learning) certification courses and achieving academic distinction in emerging technology domains.

NPTEL, an initiative by IITs and IISc, is a nationally recognized platform that offers high-quality online courses and certifications, strengthening students' theoretical foundations and industry-relevant skills. The successful completion of these courses reflects the students' dedication, self-discipline, and commitment towards continuous learning beyond the classroom.

The following students have earned NPTEL certifications in various advanced subjects:

- 1) **Yogiraj Tambule** – *Applied Accelerated Artificial Intelligence*
- 2) **Rani Bhute** – *Artificial Intelligence: Concepts and Techniques*
- 3) **Vaishnavi Pohare** – *Artificial Intelligence: Concepts and Techniques*
- 4) **Neal Amar Kuril** – *Python for Data Science and Data Analytics with Python*
- 5) **Riya Sunil Gedam** – *Introduction to Internet of Things (IoT)*

Their achievements highlight the growing academic strength of the CSE department and its focus on nurturing future-ready engineers.


The department congratulates all the achievers for their remarkable efforts and wishes them continued success in their academic and professional journeys.

*(NPTEL certificates are attached at the end of this article.)*

# NPTEL Achievers



STUDENT ACHIEVEMENTS

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

This certificate is awarded to  
**YOGIRAJ TAMBULE**  
for successfully completing the course


**Applied Accelerated Artificial Intelligence**


with a consolidated score of **56** %


Online Assignments	25/25	Proctored Exam	30.62/75
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Total number of candidates certified in this course: **591**


**Jul-Oct 2025**  
(12 week course)


  
**Dr. Salil Kashyap**  
Coordinator, Centre for Educational Technology,  
IIT Guwahati

 Skill India  
कोशल भारत - कुशल भारत



 Indian Institute of Technology Guwahati

 FREE ONLINE EDUCATION  
**swayam**  
शिक्षण सार, समकाल

Roll No: NPTEL25CS98S464401955 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  
**RIYA SUNIL GEDAM**  
for successfully completing the course

**Introduction to Internet of Things**

with a consolidated score of **66** %

Online Assignments	16.66/25	Proctored Exam	49.5/75
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Total number of candidates certified in this course: **50282**

**Jul-Oct 2025**  
(12 week course)

  
**Prof. Haimanti Banerji**  
Coordinator, NPTEL  
IIT Kharagpur

 Skill India  
कोशल भारत - कुशल भारत




 Indian Institute of Technology Kharagpur

 FREE ONLINE EDUCATION  
**swayam**  
शिक्षण सार, समकाल

Roll No: NPTEL25CS147S964401595 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  
**NEAL AMAR KURIL**  
for successfully completing the course

**Python for Data Science**

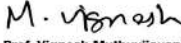
with a consolidated score of **70** %

Online Assignments	21/25	Proctored Exam	48.75/75
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Total number of candidates certified in this course: **11133**


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


**Jul-Aug 2024**  
(4 week course)


  
**Prof. Vignesh Muthuvijayan**  
NPTEL Coordinator  
IIT Madras

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 Indian Institute of Technology Madras

 FREE ONLINE EDUCATION  
**swayam**  
शिक्षण सार, समकाल

Roll No: NPTEL24CS68S142400951 To verify the certificate  No. of credits recommended: 1 or 2

# NPTEL Achievers



STUDENT ACHIEVEMENTS



## NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**NEAL AMAR KURIL**  
for successfully completing the course

**Data Analytics with Python**

with a consolidated score of **56** %

Online Assignments	16.53/25	Proctored Exam	39.8/75
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Total number of candidates certified in this course: **10022**

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

**Jan-Apr 2025**  
(12 week course)

  
**Prof. Ranjana Pathania**,  
Professor (BSBE)  
Coordinator (NPTEL)



Indian Institute of Technology Roorkee



Roll No: NPTEL25CS17S1252801718

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  
**VAISHNAVI POHARE**  
for successfully completing the course

**Artificial Intelligence: Concepts and Techniques**

with a consolidated score of **60** %

Online Assignments	24.69/25	Proctored Exam	35.5/75
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Total number of candidates certified in this course: **6785**

**Jul-Oct 2025**  
(12 week course)

  
**Prof. L. Umanand**  
NPTEL Coordinator & Chair, Centre for Continuing  
Education, IISc Bangalore



Indian Institute of Science Bangalore



Roll No: NPTEL25CS159S1264401244

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  
**RANI BHUTE**  
for successfully completing the course

**Artificial Intelligence: Concepts and Techniques**

with a consolidated score of **57** %

Online Assignments	24.38/25	Proctored Exam	32.81/75
--------------------	----------	----------------	----------

Total number of candidates certified in this course: **6785**

**Jul-Oct 2025**  
(12 week course)

  
**Prof. L. Umanand**  
NPTEL Coordinator & Chair, Centre for Continuing  
Education, IISc Bangalore



Indian Institute of Science Bangalore



Roll No: NPTEL25CS159S1164401534

To verify the certificate



No. of credits recommended: 3 or 4

# Innovation in Action: CSE Team Shines at National-Level PARANOX 2.0 Hackathon



STUDENT ACHIEVEMENTS

A national-level hackathon, **PARANOX 2.0**, witnessed enthusiastic participation from more than **20,119 students** across various institutions, creating a highly competitive and innovation-driven platform. Amidst this intense competition, a team from the Department of Computer Science and Engineering achieved remarkable success by getting selected for their innovative prototype titled **“Digital Classroom.”**

The project focused on enhancing the teaching-learning process through the effective use of technology, aiming to make education more interactive, accessible, and future-ready. The team demonstrated strong problem-solving abilities, creativity, and technical expertise while developing a solution that addressed real-world educational challenges.

The selected team members were **Yogiraj Tambule, Yash Godse, Priyansh Pardhi, and Kartik Shirrang**, whose collaborative effort, dedication, and innovative thinking played a key role in this achievement. Their success at PARANOX 2.0 highlights the growing culture of innovation, teamwork, and practical learning within the department.

This accomplishment not only brings pride to the institution but also inspires fellow students to actively participate in hackathons and technical competitions, transforming ideas into impactful technological solutions.

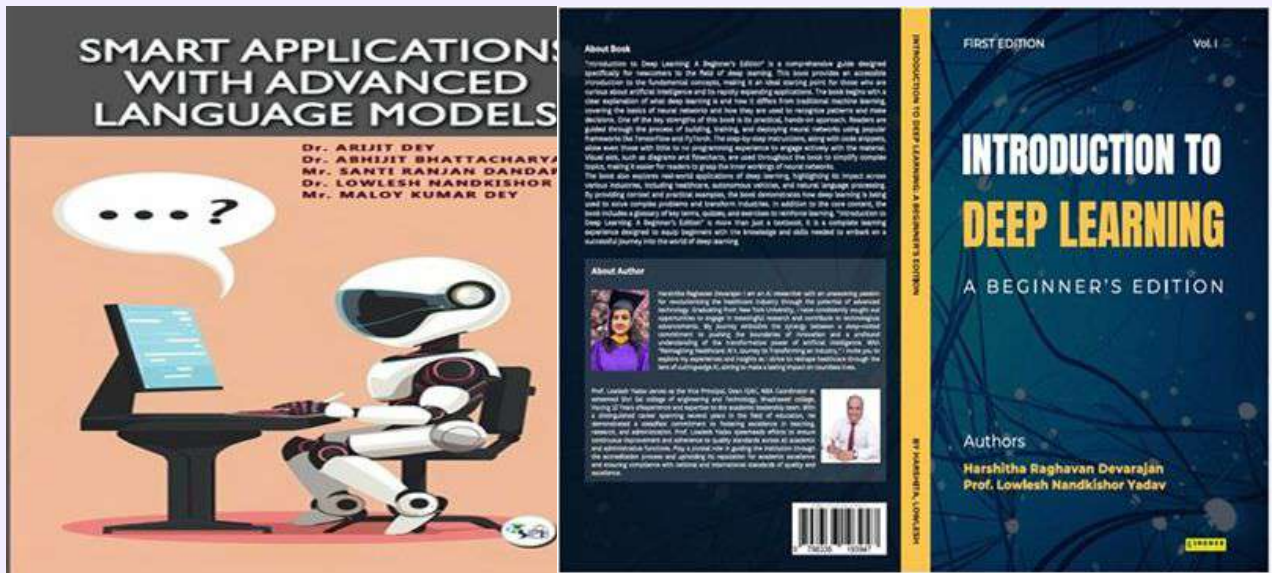


# Faculty Achievements

<u>Sr. No</u>	<u>Name of Faculty</u>	<u>Name of subject</u>	<u>Title of Book</u>	<u>PublicationName of author and</u>
1	Dr Swapnili Karmore	Data Science & Analytics	Data Science & Analytics	Dr. Swapnili Karmore, Lambert Publications
2	Dr. Lowlesh Yadav	AI	Smart Application with Advanced Launguage Model	1. Dr. Arijit Dey, 2. Dr. Abhijit Bhattacharya, 3. Mr. Santi Ranjan Dandapat, 4. Dr. Lowlesh yadav , Mr. Maloy Kumar Dey.
3	Dr. Lowlesh Yadav	Deep Learning	Introduction to deep Learning	1. Harshita Raghavan Devarajan, 2. Dr. Lowlesh yadav
4	Prof. Brahmadeo Wadibhasme	DSP	Fundamentals of Signals & System	Dr. Vinay Keswani, Bramhdeo wadibhasme, Dr. Ghanshyam Nikhade

**Faculty Achievement Books Publications of Faculty: 04**

# Faculty Achievements



Dr. Lowlesh Yadav has published this books – Introduction to Deep Learning & Smart Applications with Advanced Language Models.

The image shows the cover of the textbook 'FUNDAMENTALS OF SIGNALS AND SYSTEMS'. The cover is blue and white with mathematical formulas and a graph. The authors listed are Dr. Vinay Keswani, Bramhadeo Wadibhasme, Dr. Ghanshyam Nikhade, Vishal Jaiswal, Dr. Rushikesh Bankar, Rajesh Nakhate, Pravin Jaronde, Dr. Mahendra Gaikwad, and Dr. Atul Deshmukh. The publisher is AkiNik Publications.

Call Now      Get Best Price

**Fundamentals of Signals and Systems**

₹ 425 (Change Currency to USD)

Author(s) : Dr Vinay Keswani, Bramhadeo Wadibhasme, Dr. Ghanshyam Nikhade, Vishal Jaiswal, Dr. Rushikesh Bankar, Rajesh Nakhate, Pravin Jaronde, Dr. Mahendra Gaikwad and Dr. Atul Deshmukh

Paperback ISBN : 978-93-7150-326-6

Ebook ISBN : 978-93-7150-176-7

Publisher : AkiNik Publications

Language : English


Fundamentals of Signals and Systems – A comprehensive textbook published by a team of expert authors.

# Faculty Achievements

Faulty Name	Paper Title	ISBN/ISSN	DOI	Date of publication	Link of paper
Dr. Swapnili Karmore	EBBSMWN: design of an energy-aware Block chain based Bioinspired Security Model for Wireless Network IJCNIS 2024.	ISSN: 1744-1765,el SSN: 1744-1773	10.1504/IJICS.2025.148857	October 2025	<a href="https://www.inderscienceonline.com/doi/abs/10.1504/IJICS.2025.148857">https://www.inderscienceonline.com/doi/abs/10.1504/IJICS.2025.148857</a>

## SCI Paper Publication of faculty:01

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International Journal of Information and Computer Security > 2025 Vol.28 No.2

### Title: EBBSMWN: design of an energy-aware blockchain-based bioinspired security model of wireless networks

**Authors:** Bhupesh B. Lonkar; Swapnili Karmore

**Addresses:** Department of Computer Engineering, Cummins College of Engineering for Women, Nagpur, India \*  
Department of CSE-AI&ML, Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur, India

**Abstract:** Energy-aware wireless networks require low-complexity data communication computations for operational longevity and real-time traffic demands. However, these networks face security and scalability challenges when node numbers exceed a threshold, leading to proposed models. This abstract presents a new approach to improve energy-aware wireless networks' security using blockchain technology and bioinspired techniques. It uses the ant lion optimisation method to select optimal encryption and hashing models for energy-aware blockchains, and the elephant herding optimisation model to enhance energy efficiency. The model's feasibility was tested using various performance indicators, including Sybil, DDoS, Finney, and man-in-the-middle attacks. The proposed model, combining blockchain technology, bioinspired techniques, and optimisation algorithms, results in a 4.5% reduction in energy consumption, a 5.9% decrease in communication delay, and a 2.5% reduction in jitter in wireless networks, offering a promising solution for energy-aware wireless networks.

**Keywords:** blockchain; encryption; hashing; sharding; attacks; delay; energy; jitter; scenarios.

**DOI:** 10.1504/IJICS.2025.148857



International Journal of Information and Computer Security, 2025 Vol.28 No.2, pp.227 - 248

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Published online: 29 Sep 2025

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# Faculty Achievements

Sr.No.	Name of Faculty	Name of Conference / Journal where paper submitted or presented	Title of Paper	Status of Paper	Photos
1	Dr Swapnili Karmore	<p><b>SCI &amp; Scopus Journal</b></p> <p>: International Journal of Information and Computer Security (IJCNIS) (Volume 28, Issue 2, Pages 227-248)</p>	<p><b>EBBSMWN:</b> design of an energy-aware Block chain based Bioinspired Security Model for Wireless Network IJCNIS 2024.</p>	Published	
2	Dr Swapnili Karmore	<p><b>National Conference</b> AICTE-VAANI</p> <p>Sponsored National Conference on sustainable Energy in the Context of Climate Change' (SEMCCC-2K25), scheduled on 10th and 11<sup>th</sup> October 2025.</p>	<p><b>ChronoInsight:</b> Automated Web tracking &amp; Visualization for User Experience Optimization</p>	Published	

# Faculty Achievements

3	Prof. Shubhkirti Bodkhe	Springer, National Academy Science Letter.	Self-Supervised Multi-Modal Transformers for Real-Time Decision Making in Edge AI Systems	Accepted	
4	Prof. Komal Naxine	Iranian Journal of Science and Technology	Explainable Reinforcement Learning via Symbolic Trajectory Abstractions for Safe Robotics	Submitted	
5	Bramhdev Wadibhasme	BJIT Scopus – International Journal of Information Technology	Energy Aware Lightweight Deep Learning Models for Real-Time Edge Intelligence in Ultra-Low-Power IoT Environment	Submitted	

# Faculty Achievements

6.	Priyanka Chaoudhari	Springer, National Academy Science Letter.	Architecture Search for Carbon-Efficient AI on Resource-Cons trained Devices: A Comprehensive Review	Submitted	
7.	Priyanka Chaoudhari	<b>National Conference</b> AICTE-VAANI  Sponsored National Conference on sustainable Energy in the Context of Climate Change' (SEMCCC-2K25), scheduled on 10th and 11 <sup>th</sup> October 2025.	The Global impact of Artificial Intelligence: Recent Progress and Future directions	Published	
8.	Snehal Rewatkar	National Academic Science Letters  Springer Journal	Self-Evolving Machine Learning Architectures for Continual AI Adaptation in Dynamic Environments	Accepted	

# Faculty Achievements

Sr. No.	Name of Faculty	Title of Course	Percentage	Remark
1	Prof. Nitin Khadane	Patent Drafting for Beginners	73%	Silver + Elite
2	Prof. Priyanka Choudhary	Accreditation & outcome based Learning	65%	Elite
3	Prof. Komal Naxine	OBE & Accreditation	75%	Silver + Elite
4	Prof. Shubhkirti Bodkhe	OBE & Accreditation	75%	Silver + Elite
5	Prof. Nitin Khadane	Data Science for Engineering	61%	Elite
6	Prof. Nitin Khadane	Python for Data Science	61%	Elite

**No. of Faculty NPTEL :- 06**

# Faculty Achievements



Elite

## NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

This certificate is awarded to  
**PRIYANKA CHOUDHARY**  
for successfully completing the course



Skill India  
कोशल भारत - कुशल भारत



Accreditation and Outcome Based Learning

with a consolidated score of **65** %

Online Assignments	19.46/25	Proctored Exam	45.92/75
--------------------	----------	----------------	----------

Total number of candidates certified in this course: **1958**

Aug-Oct 2025  
(8 week course)

**Prof. Haimanti Banerji**  
Coordinator, NPTEL  
IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No: NPTEL25GE63S364400369

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  
**NITIN GENDLAL KHADANE**  
for successfully completing the course



Skill India  
कोशल भारत - कुशल भारत



Data Science for Engineers

with a consolidated score of **61** %

Online Assignments	23.54/25	Proctored Exam	37.63/75
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Total number of candidates certified in this course: **5002**

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

Jul-Sep 2025  
(8 week course)

**Prof. Vignesh Muthuvijayan**  
NPTEL Coordinator  
IIT Madras



Indian Institute of Technology Madras



Roll No: NPTEL25CS101S542900196

To verify the certificate



No. of credits recommended: 2 or 3

# Faculty Achievements

**Elite**

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

This certificate is awarded to  
**KOMAL RAJKUMAR NAXINE**  
for successfully completing the course

**OBE and Accreditation**

with a consolidated score of **75** %

Online Assignments	21.88/25	Proctored Exam	53.5/75
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Total number of candidates certified in this course: **1602**

**Jul-Oct 2025**  
(12 week course)

  
**Prof. L. Umanand**  
NPTEL Coordinator & Chair, Centre for Continuing Education, IISc Bangalore

 Indian Institute of Science Bangalore



Roll No: NPTEL25GE79S1264401222      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  
**SHUBHKIRTI BODKHE**  
for successfully completing the course

**OBE and Accreditation**

with a consolidated score of **75** %

Online Assignments	20.6/25	Proctored Exam	54.25/75
--------------------	---------	----------------	----------

Total number of candidates certified in this course: **1602**

**Jul-Oct 2025**  
(12 week course)

  
**Prof. L. Umanand**  
NPTEL Coordinator & Chair, Centre for Continuing Education, IISc Bangalore

 Indian Institute of Science Bangalore

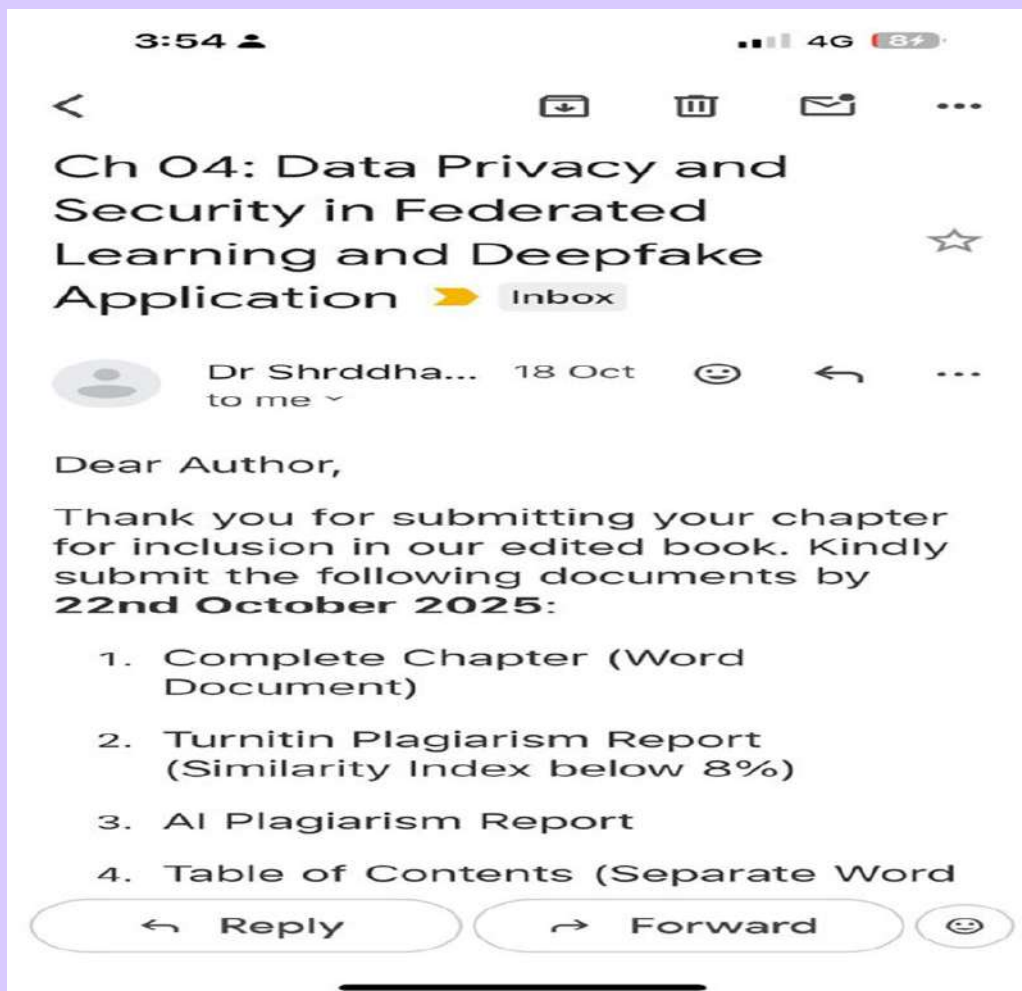


Roll No: NPTEL25GE79S1264402304      To verify the certificate       No. of credits recommended: 3 or 4

# Faculty Achievements


Sr. No	Name of Faculty	Name of subject	Title of Book/Book Chapter	Name of author and Publication
2	Dr. Swapnili Karmore	Cyber Security	<b>Book Chapter: Data Privacy and Security in Federated Learning and Deepfake Application</b>	Villey Publication

## Books Chapter Publications submission of Faculty



# Faculty Achievements



 **Heartiest Congratulations to respected HOD Dr. Lowlesh Yadav Sir on research contribution. We are proud of your achievement and inspired by your dedication**



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**Winner of Code Battle 2025**



NAAC Accredited Vidarbha Bahu-uddeshiya Shikshan Sanstha's

**TULSIRAMJI GAIKWAD-PATIL**

College of Engineering & Technology

— An Autonomous Institute —



**COMPUTER SCIENCE & ENGINEERING DEPARTMENT**

**THIRD SEMESTER TOPPERS**



**Ms. Manasi Dhargave**  
Pointer : **9.82**



**Ms. Tanuja Narwade**  
Pointer : **9.77**



**Ms. Sayali Bhujade**  
Pointer : **9.55**



**Mr. Shafin Sheikh Iqbal**  
Pointer : **9.55**



# TULSIRAMJI GAIKWAD-PATIL

College of Engineering & Technology

— An Autonomous Institute —



## COMPUTER SCIENCE & ENGINEERING DEPARTMENT

### FIFTH SEMESTER TOPPERS



**Ms. Aarti Ghayade**  
Pointer : **10.00**



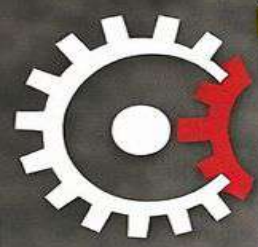
**Mr. Preet Gawali**  
Pointer : **10.00**



**Mr. Tomesh Kurzekar**  
Pointer : **9.86**



**Ms. Bhumika Rathod**  
Pointer : **9.71**

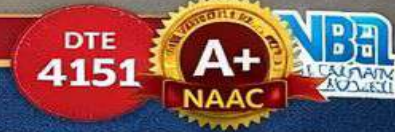


NAAC Accredited Vidarbha Bahu-uddeshiya Shikshan Sanstha's

**TULSIRAMJI GAIKWAD-PATIL**

College of Engineering & Technology

— An Autonomous Institute —



**COMPUTER SCIENCE & ENGINEERING DEPARTMENT**

**SEVENTH SEMESTER TOPPERS**



**Mr. Hemant Sangrame**  
Pointer : **9.57**



**Mr. Rupesh Mutkule**  
Pointer : **9.42**



**Mr. Sheeten Karmankar**  
Pointer : **9.42**



**Mr. Ashish Khillare**  
Pointer : **9.42**

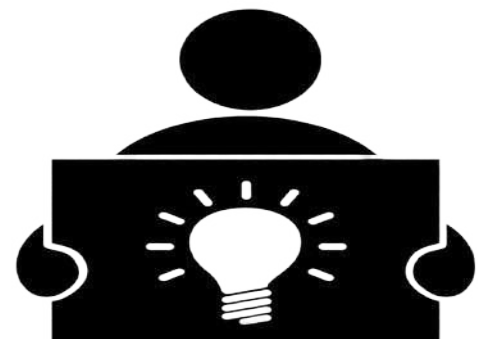


**Ms. Shreya Patil**  
Pointer : **9.33**

# STUDENT ACTIVITIES



Model presentation on engineers day



# CSE FIESTA 2K25



# PHOTO GALLERY



*Freshers 2k25*



# DEPARTMENT OFFICIAL LINKS



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