

DEPARTMENT OF ELECTRICAL ENGINEERING

NEWSLETTER: 2024-25



DTE Code: 4151

www.tgpcet.com

TULSIRAMJI GAIKWAD-PATIL
College of Engineering & Technology

— AN AUTONOMOUS INSTITUTE —



GAIKWAD-PATIL
GROUP OF INSTITUTIONS

VISION OF THE INSTITUTE

To emerge as Learning Center of Excellence in the National Ethos in domains of Science, Technology and Management.

MISSION OF THE INSTITUTE

[M1] To strive for rearing standard and stature of the students by practicing high standards of professional ethics, transparency and accountability.

[M2] To provide facilities and services to meet the challenges of Industry and Society.

[M3] To facilitate socially responsive research, innovation and entrepreneurship.

[M4] To ascertain holistic development of the students and staff members by inculcating knowledge and profession as work practices.

VISION OF THE DEPARTMENT

To emerge as a learning hub and Centre of excellence in the domain of Electrical Engineering.

MISSION OF THE DEPARTMENT

[M1] To disseminate knowledge replete with quality education in the field of Electrical Engineering in meticulous and methodical manner.

[M2] To provide platform to address societal issues as well as challenges faced by industries.

[M3] To develop research culture and inculcate innovative and entrepreneurial skills.

[M4] To ensure overall development of students and staff by instilling knowledge and professional ethics as part of lifelong learning

Program Educational Objectives (PEOs)

1. Demonstrate and analyze the fundamental knowledge with respect to the various domains of Electrical Engineering.
2. Investigate and apply modern tools to develop innovativeness in different applications of Electrical Engineering domain.
3. Integrate new emerging trends and concepts in Electrical Engineering profession for sustainable development.
4. Develop professionals having managerial and administrative Qualities for Electrical Engineering related industries.
5. Promote lifelong learning, to prepare for the next challenges in the field of Electrical Engineering.

Program Outcome (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.

List of Faculty Members



DR. Pratik Ghutke
Head, Electrical
Engineering Department
B.E., M.Tech., Ph.D.



Dr. Prashant
Thakre



Dr.
Radharaman
Shaha



Prof. Vaishali
Malekar



Prof. Ganesh
Wakte



Prof. Chetan
Jambhulkar



Prof. Praful
Ghadge



Prof. Kunal
Sawalakhe



Prof. Ashvini
Admane



Prof. Kishor
Dhore



Prof. Pritesh
Mhaiskar

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MESSAGE FROM HOD



DR. Pratik Ghutke
Head, Electrical
Engineering Department
B.E., M.Tech., Ph.D.

I am delighted to welcome you to this edition of our newsletter, where we reflect on our department's accomplishments, milestones, and the exciting initiatives ahead. As we continue to grow and evolve, it is essential that we stay connected and informed about the amazing work being done by our faculty, students, and staff.

This year has been one of progress and achievement, with groundbreaking research, exceptional academic performances, and new collaborations across disciplines. Each of these successes is a testament to the dedication, hard work, and passion of everyone involved in our department. Together, we are making a meaningful impact on our field, shaping the future of Electrical Engineering Department and contributing to the broader academic and professional communities.

As we look forward, we are excited about the opportunities that lie ahead. With new projects, partnerships, and initiatives on the horizon, I am confident that we will continue to build on our strengths and tackle the challenges of tomorrow. It is an exciting time to be part of this dynamic department, and I encourage all of you to remain engaged, collaborate, and contribute to the ongoing success of our shared mission. Thank you for your continued support, dedication, and passion. I look forward to another productive year ahead, and I am grateful for the exceptional community we are building together.

EDITORIAL



Prof. Ashvini Admane

Welcome to the new edition of our Electrical Engineering Department newsletter. As always, it is a privilege to share with you the exciting developments, accomplishments, and innovations that have defined our department over the past semester. This newsletter is not just a platform to highlight our achievements, but also an opportunity to showcase the collaborative spirit and enthusiasm that make our department such a vibrant community.

In this issue, we bring you stories of groundbreaking research, industry partnerships, student accomplishments, and faculty contributions that continue to push the boundaries of electrical engineering. Whether it's cutting-edge work in renewable energy, advancements in artificial intelligence, or innovative student projects, the department remains at the forefront of technology and discovery. We are proud of how our students, faculty, and staff are shaping the future of this dynamic field.

This newsletter also serves as a reminder of the importance of community. From departmental events to conferences, from academic collaborations to extracurricular activities, we encourage everyone to stay engaged and connected. The strength of our department lies not only in our technical expertise but in the relationships and networks we build together.

As the Editorial Board, we are thrilled to be part of this journey and to help amplify the voices of all those who contribute to our collective success. We look forward to continuing to share your stories and achievements, and to make this newsletter a true reflection of the diverse, innovative, and inspiring community that is Electrical Engineering.

Departmental Activities



"Exploring Power Distribution:
Industrial Visit to
MSEDCL33kV/11kVSubstation,
Alagondi on 02 nd August 2024

The visit was organized on 11.07.2024 for the students of 2nd Year odd semester along with two faculties to The Times of India, Butibori, Nagpur.



Department of Electrical Engineering of Tulsiramji Gaikwad Patil College of Engineering and Technology, Nagpur (TGPCET) have organized one day Guestlecture on "Developments in Installation capacity, Stages, working of various

Departmental Activities



Department of Electrical Engineering of Tulsiramji Gaikwad Patil College of Engineering and Technology, Nagpur (TGPCET) have organized a Industrial Visit at MSPGCL, KTPS, Koradi, Nagpur on 28th August 2024.

Felicitations of Toppers of End semester exam S-2024 by offering the certificate & Token of appreciation



The Department of Electrical Engineering of TGPCET, have conducted the guest lecture on “Applications of PLC & SCADA in Industry” under the banner of IEI & ISTE for 3rd and 4th year students on 31st July 2024.



Departmental Activities



Department of Electrical Engineering of Tulsiramji Gaikwad Patil College of Engineering and Technology, Nagpur (TGPCET) have organized a Industrial Visit at Area Load Despatch Centre, Ambazari, Nagpur on 26th September 2024.

Department of Electrical Engineering of Tulsiramji Gaikwad Patil College of Engineering and Technology, Nagpur (TGPCET) have organized a Industrial to V. R. Jamdar Siemens Center of Excellence, VNIT Nagpur



Department of Electrical Engineering of Tulsiramji Gaikwad-Patil College of Engineering and Technology, Nagpur, successfully organized a Two-Day Workshop on Smart Control Technology for Industry 4.0



Departmental Toppers

Semester:IV(Autonomous)

Sr. No.	Name of Students	Marks Obtained out of(750)	SGPA
1	Chahul G. Tembhare	703	9.95
2	Komal U.Dhobale	702	9.95
3	Manasvi S.Shambharkar	686	9.95
4	Ashwini D Shende	700	9.86

Semester: VI (Autonomous)

Sr. No.	Name of Students	Marks Obtained out of(750)	SGPA
1	Saransh D.Humne	676	9.04
2	Ayush R Shahare	633	8.20
3	Anjali M. Gyayar	630	8.20

Semester: VIII (RTMNU)

Sr. No.	Name of Students	Marks Obtained out of(450)	Percentage(%)
1	Prajwal S. Sapat	377	85.30%
2	Sachine H.Jambhekar	351	84.90%
3	Pritam S. Kondapratwar	352	83.30%

Departmental Best Project

Sr. No.	Name of students	Projects Topic
1.	Prajwal Shekhar Urkude Ritul Ajabrao Chinchulkar Swapnil Pandurang Surtikar Vaishnav Satish Bhakte	Fire Detector Sensor
2	Aditya Suresh Kundalkar Alok Duleshwar Meshram Anant Baburam Suryawanshi Karan Sandip Yengandewar Prathamesh Jayantrao Harane Subodh Gangadhar Savarkar	Wireless Vehicle charging System
3	Nikita Rajendra Sahare Sanjivani Ravindra Chavhan Shreya Raju Dhavande Sonali Vilas Meshram Yashashri Dhananjay Neware	Automatic Door Opening using Aurduino and PIR sensor
4	Kunal Suresh Gowardipe Sanket Vilas Pulate Tanmay Bharat Bobade Yash Balaji Boddewar	IOT Base Energy meter Monitoring with theft Detection
5	Bhairavi Ravindra Narange Ritu Sanjay Bopche Nikhil Pushparaj Bhoyar Komal Uttam Dhobale Manasvi Sunil Shambharkar	IOT base plant Watering System
6	Rinku Rameshwar Lonare Trupti Someshwar Mankar Nandini Jagdish Sakhare Monika Dudharam Kamble Kanchan Ramdas Nirwan	Digital Name Plate

Students Achievements



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Congratulations

On the Successful Placement in



Mr. Harshal Jagtap
Electrical Engineering



Mr. Vedant Wayare
Electrical Engineering



Mr. Jitendra Wadhai
Electrical Engineering



Mr. Manish Meshram
Electrical Engineering

B.Tech | B.Arch | M.Tech | MBA | MCA | BBA | BCA | Polytechnic | D.Arch | B.Pharm | D.Pharm | BAMS | B.Sc Nursing | Physiotherapy | Ph.D

Students Achievements

Sr. No.	Name of Students
1	ADITYA MESHRAM
2	DIKESH MOHADIKAR
3	TABREJ KHAN
4	SUMIT RAMTEKE
5	ASHISH DADMAL



Faculty Achievements



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Congratulations!

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Prof. Kunal Sawalakhe
Asst. professor, EE



Prof. Ganesh Wakte
Head, EE



Dr. Pratik Ghutke
Dean, PG



**“ADVANCEMENT IN REGENERATIVE BRAKING
SYSTEM OF COMPREHENSIVE OVERVIEW”**

Registration Number: L-151878/2024



Dr. Pratik Ghutke
Dean, PG



Prof. Chetan Jambhulkar
Asst. professor, EE

**“TRANSFORMER HEALTH MONITORING
SYSTEM USING AURDINO”**

Registration Number: L-150463/2024



Prof. Vaishali Malekar
Asst. professor, EE



Dr. Pratik Ghutke
Dean, PG

**“UNDERGROUND CABLE FAULT DISTANCE
LOCATOR USING AURDINI UNO”**

Registration Number: L-150522/2024



Faculty NPTEL Domains

Elite

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

This certificate is awarded to
DR PRATIK C GHUTKE
for successfully completing the course

Technical English for Engineers

with a consolidated score of **70** %

Online Assignments	21.88/25	Proctored Exam	48/75
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Total number of candidates certified in this course: **4282**

Aug-Oct 2024
(8 week course)

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

M. Vignesh
Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL24HS175S553100367 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
GANESH DIGAMBAR WAKTE
for successfully completing the course

Organizational Behaviour

with a consolidated score of **73** %

Online Assignments	23.75/25	Proctored Exam	49.5/75
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Total number of candidates certified in this course: **5413**

Jul-Oct 2024
(12 week course)

Prof. B Umashankar
Chairperson, Centre for Continued Education (CCE)
IIT Hyderabad

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Indian Institute of Technology Hyderabad

swayam

Roll No: NPTEL24MG87S453100995 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
KUNAL SAWALAKHE
for successfully completing the course

Patent Search for Engineers and Lawyers

with a consolidated score of **56** %

Online Assignments	22.88/25	Proctored Exam	33/75
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Total number of candidates certified in this course: **86**

Aug-Oct 2024
(8 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL24MG135S1053101868 To verify the certificate  No. of credits recommended: 2 or 3

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

This certificate is awarded to
PRITESH RAMESHRAO MHAISKAR
for successfully completing the course

Patent Search for Engineers and Lawyers

with a consolidated score of **53** %

Online Assignments	22.67/25	Proctored Exam	30/75
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Total number of candidates certified in this course: **86**

Aug-Oct 2024
(8 week course)

Prof. Haimanti Banerji
Coordinator, NPTEL
IIT Kharagpur

Indian Institute of Technology Kharagpur

swayam

Roll No: NPTEL24MG135S953101953 To verify the certificate  No. of credits recommended: 2 or 3

Faculty Certifications

SCIENTIFIC INTERNATIONAL PUBLISHING HOUSE



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UDYAM-TN-25-0005186



Certificate of Publication

The editorial board of Scientific International Publishing House is hereby awarding this certificate to **Dr. Pratik C.Ghutke**, in recognition of the publication of the text book entitled **CONTROL SYSTEM ENGINEERING** published in First edition.

ISBN NO: 978-93-6674-207-6
Year of Allotment of ISBN: 2024



Pratik C. Ghutke
Editor-in-Chief

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[AICTE Training and Learning \(ATAL\) Academy](#)

Certificate

It is certified that **Mr. Pritesh Ramesh Rao Mhaikar**, Faculty members of the AICTE approved institutions of **Tulsiramji Gaikwad Patil College of Engineering and Technology, Nagpur** has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on **Advancement in Electric Vehicle Technology and Challenges** at **GOVERNMENT POLYTECHNIC NAGPUR** from **05/08/2024 to 10/08/2024**.

Gajanan Kondbaji Awari

GAJANAN KONDBAJI AWARI
Other, Coordinator
GOVERNMENT POLYTECHNIC NAGPUR

Dr. Sunil Luthra

Dr. Sunil Luthra
Director & Bureau Head
Training and Learning Bureau, AICTE

Departmental News Wall

LOKMAT TIMES

'Students should be prepared to face technology challenge'



Final year students of TGP CET during farewell.

LOKMAT NEWS NETWORK
NAGPUR

Head of Department of Electrical Engineering Pratik Ghute said here that the students of Tulsiramji Gaikwad Patil College of Engineering and Technology should be ready to face any technology challenge in life.

He was speaking at a farewell programme organised for the final year Students of TGP CET here. At the outset, Dr Pratik Ghutke extended floral welcome of all final year students.

The students were also felicitated with a memento as token of love. Later on various activities like games,

singing, raps, rapid fire and other cultural activities were organised. The students shared their experiences and memories of their engineering journey.

The management of TGP CET also extended its warm wishes to the pass outs.

Those who were present on this occasion included principal, Dr P L Naktode, vice-principal, Prof Pragati Patil, dean IQAC, Prof Ritesh Banpurkar and others. The programme was coordinated by Students' Forum in-charge Prof Praful Ghadge, and Prof Ganesh Wakte. Harshank Kohad from second year Electrical branch conducted the programme.

Nagpur First
Page No. 2 May 14, 2024
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Tulsiramji Gaikwad-Patil College of Engineering & Technology



ELECTRICAL Engineering and Power Systems, students from the Electrical Engineering Department of

Tulsiramji Gaikwad Patil College of Engineering and Technology, went on a six-day Industrial Tour to Delhi, Chandigarh and Kullu Manali, recently. Main objective of the tour was to provide students with insights into structure of electrical power systems in the mountainous regions. The tour was organised under Dr Mohan Gaikwad-Patil, Chairman GPGI; Akash Gaikwad-Patil, Vice-Chairman GPGI; Prof Sandeep Gaikwad, Treasurer GPGI; Dr PL Naktode, Principal TGP CET; Prof Pragati Patil, Vice-Principal TGP CET; HoD-Electrical Dept. Dr Ghutke and programme coordinated by Prof Wakte and Prof Ghadge.

Colleges may send their news items on
cityline@thehitavada.com

गायकवाड पाटील अभियांत्रिकी महाविद्यालयात औष्णिक वीज निर्मिती या विषयावर अतिथी व्याख्यान

विदर्भ कल्याण / देवेन्द्र सिसाट

हिमणा : विद्युत अभियांत्रिकी विभाग (NBA मान्यताप्राप्त) विभागातर्फे तृतीय, पाचव्या व सातव्या सेमिस्टर च्या विद्यार्थ्यांसाठी ISTE, IEI आणि फिनिक्स फोरमच्या अंतर्गत तज्ञ व्याख्यान नुकतेच आयोजित करण्यात आले होते. यावेळी KTPS, कोराडी येथील उपकार्यकारी अभियंता श्री. नवल दामले यांना तज्ञ वक्ते म्हणून आमंत्रित केले होते. दीपप्रज्वलनाने आणि प्रार्थनेने तज्ञ व्याख्यानाची सुरुवात झाली त्यानंतर डॉ. प्रतीक घुटेके विद्युत अभियांत्रिकी विभागाचे प्रमुख यांनी दिलेले उद्घाटनसमालोचनाने झाली. त्यांनी या व्याख्यानाचे महत्त्व सांगितले. या तज्ञ व्याख्यानाचे सूत्रसंचालन प्रा. अश्विनी आदमाने यांनी केले. या अतिथी व्याख्यानाचा उद्देश "औष्णिक वीज निर्मिती केंद्राच्या विविध उप-प्रणालींची स्थापना क्षमता, टप्पे, कार्यप्रणाली मधील विकास" देणे आहे. थर्मल



पॉवर प्लॉटच्या ऑपरेशनमध्ये उत्कृष्ट संकल्पना देणे आणि सैद्धांतिक आणि व्यावहारिक गरजा प्रकट करणारे विविध केस स्टडीज सचित्र करणे. या अतिथी व्याख्यानाचे आयोजन नूतनीकरणक्षम ऊर्जा स्रोत (III sem), पॉवर प्लॉट इंजीनियरिंग मॅग करण्यात मदत करते. (V sem) आणि पॉवर सिस्टम ऑपरेशन आणि कंट्रोल (VII sem) आणि खालील पो'स प्राप्त करणे. अभियांत्रिकी ज्ञान (PO1) आधुनिक साधनाचा वापर (PO5) अभियंता आणि समाज (PO6) आजीवन शिक्षण (PO12)

आमचे माननीय डॉ. मोहन गायकवाड-पाटील, अध्यक्ष जीपीजीई, माननीय श्री. आकाश गायकवाड-पाटील उपाध्यक्ष जीपीजीई, माननीय प्रा. संदीप गायकवाड, माननीय डॉ. पी.एल. नाकतोडे, प्राचार्य टीजीपीसीईटी, माननीय प्रा. प्रगती पाटील, उपप्राचार्य टीजीपीसीईटी, यांच्या अखंड प्रेरणा, मार्गदर्शन आणि प्रोत्साहनाने हा कार्यक्रम यशस्वीपणे पार पडला. कार्यक्रमाचे सूत्रसंचालन प्रा.पूजा यावले आणि प्रा.अश्विनी आदमाने यांनी केले. विद्युत अभियांत्रिकी विभागाच्या सर्व प्राध्यापकांनी हा कार्यक्रम यशस्वीरित्या पार पाडला.