

GOLDEN VALLEY EDUCATIONAL TRUST

Dr. T. THIMMAIAH INSTITUTE OF TECHNOLOGY

Oorgaum, KGF - 563 120.



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

TRICAL

NEWSLETTER 2024

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PRESIDENT MESSAGE

It is with great pride and joy that I present the 5th edition of TRICAL, the annual newsletter of the Electrical & Electronics Engineering Department at Dr. T. Thimmaiah Institute of Technology. This publication reflects the unwavering commitment of our faculty and students toward academic excellence, research, and innovation in the ever-evolving field of electrical engineering.

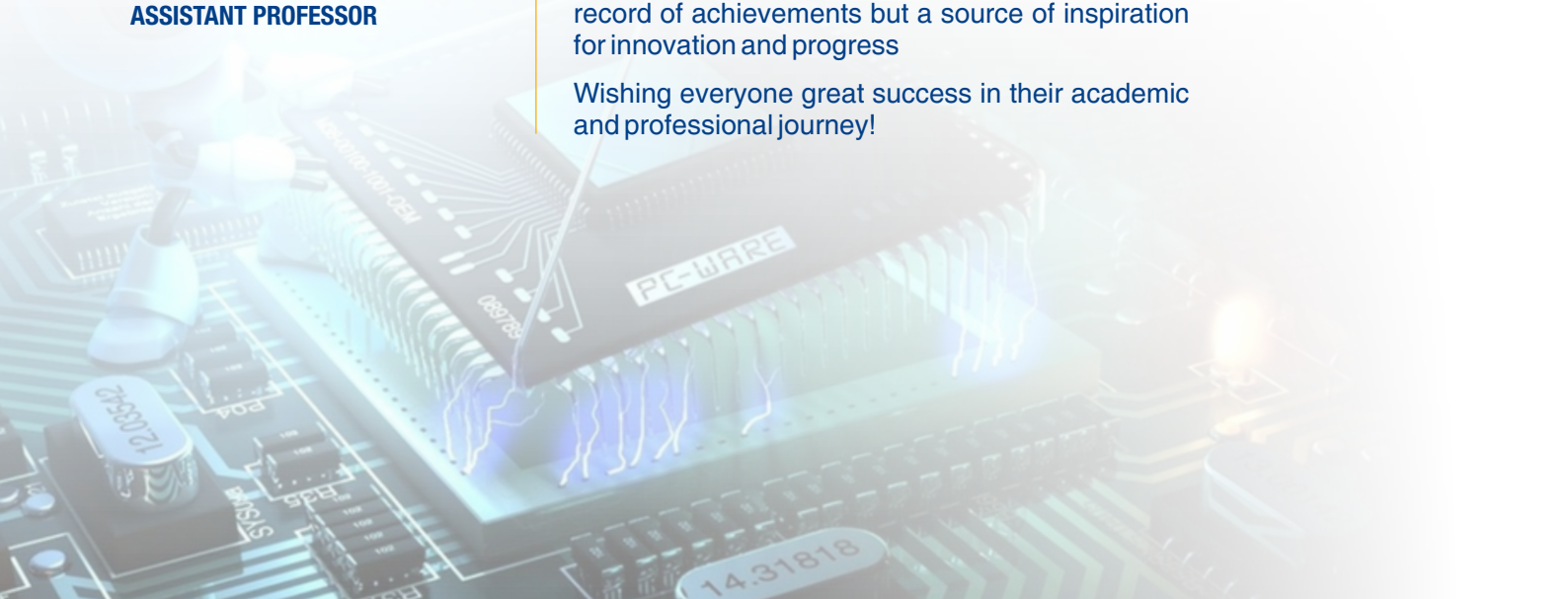
As the world advances toward sustainable energy, smart grids, and intelligent automation, the role of electrical engineers has become more crucial than ever. At Dr. TTIT, we strive to equip our students with the latest knowledge, practical skills, and problem-solving abilities that prepare them for the challenges of tomorrow.

I extend my heartfelt appreciation to the faculty, students, and editorial team for their dedication in bringing this edition to life. TRICAL 2024 is not just a record of achievements but a source of inspiration for innovation and progress

Wishing everyone great success in their academic and professional journey!



DR. T. VENKAT VARDHAN
PRESIDENT, GVET



Principal's Message

It is with great pleasure that I extend my warm greetings to all as we release the 5th edition of TRICAL, the annual newsletter of the Electrical & Electronics Engineering Department at Dr. T. Thimmaiah Institute of Technology. This newsletter serves as a reflection of the department's dedication to academic excellence, technical advancements, and holistic student development.



Dr. Syed Ariff
Principal
Dr.T.T.I.T, KGF

HOD's Message

I am pleased to present the EEE Department Newsletter, showcasing our students' and faculty's achievements and innovations. We are committed to academic excellence, hands-on learning, and industry collaboration, ensuring our students stay ahead in the evolving field of Electrical and Electronics Engineering.

I congratulate the team behind this publication and encourage everyone to continue their journey of learning and innovation.

Best wishes to all!-



Dr. N. Lakshmi pathy
HOD of EEE

From the Editor's Desk

Looking at 2024, the engineering community continues to push the boundaries of technology and innovation. This year has been one of global collaboration, where research, innovation, and sustainability have taken center stage. We have seen major advancements in fields like renewable energy, AI-integrated engineering, and smart city technologies. Our students continue to lead the way in learning and trying to address global challenges and making contributions to the technological world. The future of engineering is bright, and we look forward to more achievements in the years to come. Most of the events in the department are covered in this edition which will serve as an encouragement for our students and staff.



Prof. Daphny Shallet. M
Assistant Professor

ABOUT THE DEPARTMENT

Electrical & Electronics department was established in 1986 and consists of 9 Faculty members who have done their UG & PG degrees from the top universities. The faculty members of this department are consistently doing well in teaching and research.

The department grew with time reflecting the needs of changing society and establishing new areas of teaching and research in Electrical Engineering .

VISION OF THE DEPARTMENT

To produce competent engineers having technical skills oriented towards sustainable development, human values, and professional ethics through comprehensive education in electrical engineering.

MISSION OF THE DEPARTMENT

M1 : To provide a conducive environment in which students can think, learn, and apply.

M2 : To provide technical expertise through hands-on experience on real world projects with a focus on sustainable development and professional ethics.

M3 : To inculcate a positive attitude and leadership qualities in students through co-curricular activities.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

PEO-1: Graduates will be successful in Electrical Engineering and trans-disciplinary areas by pursuing a career in industry and higher education.

PEO-2: Graduates will have the ability to solve societal and industrial problems with cutting-edge technologies in Electrical Engineering to achieve sustainable development in their professional careers.

PEO-3: Graduates will have the ability to apply technical, analytical, communication and ethical skills to ensure technological progress in their careers.

PROGRAM SPECIFIC OBJECTIVES (PSO)

PSO1: Ability to model, simulate, and analyze electrical and electronic components and systems using logical, technical, and programming skills.

PSO2: Ability to identify optimal solutions for industrial and domestic energy requirements using specific design and control strategies.

FDP / WORKSHOP / CONFERENCE ATTENDED

Prof. Somashekar B attended a two-week online FDP on “Opportunities and challenges in Entrepreneurship” organized by NSTEDB, GOI, from 3rd January 2024 to 19th January 2024.

Prof. Somashekar B attended a one-day online FDP on “Power System Design & Analysis Using Digsilent Power Factory Software” organized by Dellsoft on 13th May 2024.

Prof. Sridevi A, Prof. Dhanalakshmi V, Prof. Jillian Rufus J, and Prof. Ronald Lawrence J attended a five-day FDP on “Outcome-Based Education Teaching- Learning and Assessment Process” from 26th February to 1st March 2024 at Dr. TTIT KGF.

Prof. Jillian Rufus J and Prof. Daphny Shallet M successfully completed the NPTEL course on “NBA Accreditation and Teaching-Learning in Engineering (NATE).”

Prof. Jillian Rufus J and Prof. Daphny Shallet M successfully completed the NPTEL course on “Teaching and Learning in Engineering (TALE).”

Prof. Ronald Lawrence J attended a seven-day National Level online FDP on “Python” from 19th March to 25th March 2024, organized by the Star International Foundation for Research and Education, Namakkal, Tamil Nadu.

Paper Publications

Prof. Somashekar B published a research paper titled “Design and Implementation of Charging Unit for Maritime Applications” in a Scopus Indexed and Multidisciplinary Journal, ISSN NO-1879:1719, Volume 72, April–June 2024, Page No: 1321-1329.

Prof. Somashekar B published a research paper titled “Design & Development of Compensation Topologies in WPT Using Mat lab Programming & Mat lab Simulink” in IGI Global Book Series, ISSN NO-1879:1719, Volume 72, April–June 2024, Page No: 1321-1329.

STUDENT ACTIVITIES

The department of Electrical & Electronics Engineering Organized a Five-Day Hands-on Workshop on “Applications of Advanced IoT towards Unleashing Job Opportunities” for the students of Electrical & Electronics Engineering and Mechanical Engineering from 19th to 23rd February 2024, in association with GenEd Technologies, Bangalore.

The "Advanced IoT Workshop for Unleashing Job Opportunities" spanned five intensive days, equipping participants with practical skills and knowledge in IoT, Robotics, AI, ML, and Automation. The workshop was structured to ensure hands-on learning, industry relevance, and job-ready expertise.



EEE Students participating in the Hands- on Workshop



Student participated in five days workshop on Applications of Advanced IOT towards unleashing Job Opportunities

VISIT TO INCUBATION CENTRE

Students of the 4th and 6th Semesters visited Tata Aerospace Incubation Centre

on 12th June 2024 at Government ITI, KGF.



Students visited Tata Aerospace Incubation centre KGF

INDUSTRIAL VISIT TO DECCAN HYDRAULICS

The Departments of Electrical & Electronics Engineering and Mechanical Engineering organized Industrial Visit to Ms. Deccan Hydraulics, Bangarpet, on 10th June 2024, for the 4th semester students and on 12TH August for 6th sem students. The visit aimed to bridge the gap between academic concepts and real-world applications by demonstrating how engineering and management principles are integrated into industrial projects.

From Electrical & Electronics Department, Prof. Daphny Shallet M, Assistant Professor, coordinated the visit.



Industrial Visit to Deccan Hydraulics, Bangarpet

GUEST LECTURE PROGRAMME

A Guest Lecture Programme on “Electrical Safety” was organized by the department of Electrical & Electronics Engineering on 22nd March 2024

The guest lecture was attended by students from the 2nd, 3rd, and final-year Electrical and Electronics Engineering programs, as well as faculty members of the department. A total of 38 students and 8 faculty members participated in the event.

The session commenced with a formal welcome address by Mr. Ronald Lawrence J, Assistant Professor, E&EE Department, who emphasized the importance of integrating safety education into engineering curricula, followed by address of the Dr. N. Lakshmipathy, HOD, EEE. Ms. Jayashree, Final year engineering student proposed the vote of thanks.



The Department of Electrical & Electronics Engineering, Dr. T. Thimmaiah Institute of Technology, KGF, organized an online guest lecture on “Impact of Industrial Electronics in Renewable Energy Resources” by Dr. K. Venkatesha, Professor, BNMIT, Bangalore on 19th April 2024. The lecture aimed to provide students with insights into how industrial electronics plays a pivotal role in harnessing renewable energy resources effectively. The session was attended by faculty members and undergraduate students belonging to 4th, 6th and 8th Semesters .

6 DAYS FDP & SDP ON MACHINE LEARNING AND PYTHON PROGRAMMING: PAVING THE PATH TO INNOVATION

Department of Electrical & Electronics Engineering, Dr. TTIT - IIC together with IEI Local Chapter, Kolar, organized a transformative “6-Day Student and Faculty Development Program on Machine Learning and Python Programming: Paving the Path to Innovation,” from 12th July 2024 to 19th July 2024.

Resource Persons:

- ▶ Dr. Joshi Manohar V, Professor & HOD-EEE, Presidency University
- ▶ Mr. Khaleel H. Telsung, Student Innovator, Department of EEE, Presidency University Bangalore
- ▶ Ms. Tejashwini A. Patil, Student Innovator, Department of EEE, Presidency University Bangalore
- ▶ Dr. Narashimha C, Associate Professor, Department of Mechanical Engineering, Dr. TTIT KGF

Participants gained hands-on experience in developing predictive models for induction motors, DC motors, and more using Python, with real-time examples.

34 students and faculty members from the EEE department attended, benefitting immensely from the practical knowledge and innovative techniques shared.



Faculty and Students attending the programme

INTERNATIONAL CONFERENCE – ICRTEAS 2024

The following papers were presented in the Virtual (6th International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTEAS 2024) held on May 23-24, 2024.

Mr. Gokul S, Mr. Mohammed Zaki Ul Iyan, Mr. Vignesh R and Mr. Rahul B V along with Prof. Somashekar. B Presented a paper on “Design and Implementation of Charging Unit for Maritime Applications”

Ms. Muskan Qureshi and Ms. Issra Annam guided by Dr. N. Lakshmi pathy, Presented a paper on “Design and construction of floating modular photovoltaic system”

Mr. Pushpak N. Mr. Sadiq Pasha T, Mr. Yashwanth Singh L and Mr. Yuvaraj. L under the guidance of Prof. Jillian Rufus J, Presented a paper on “Design and fabrication of retrofit E-Bicycle”

Mr. Raswanth. D K, Ms. Priyadarshini. R and Ms. Sandhya. V under the guidance of Prof. Subhashini S Presented a paper on “Design and fabrication of Solar Tree”

EEE STUDENT CLUB – E-MERGE ACTIVITIES

The department's student club, 'E-Merge' was inaugurated, on 29th October 2024.



E-Merge Student Club Inauguration

The E-Merge Student Club of the Department of Electrical & Electronics Engineering was inaugurated for the Academic Year 2023-2024 on 29th October, marking the beginning of a series of technical and cultural events. The club is led by student coordinators Jayashree and Lokananda (4th Year), Rohitha (3rd Year), and Sharavani Gowda (3rd Year), under the guidance of Prof. Dhanalakshmi and Prof. Somasekar. B as event coordinators.

To celebrate the inauguration, two exciting competitions were conducted:

Technical Event – Riddles on 29.10.2024: Eight teams participated, testing their problem-solving and analytical skills. Two teams emerged as winners:

Sujay and Eshwari (3rd Year)

Thrisha and Priyadarshini (2nd Year)



Cultural Event – Rangoli Competition on 10.12.24 : Eight teams showcased their creativity, with three teams securing top positions:

1st Place: Eshwari and Rohitha (3rd Year)

2nd Place: Shwetha Varshini and Jayashree (4th Year)

3rd Place: Dhanusiya Priya and Swethashree (2nd Year)



The events witnessed enthusiastic participation, fostering teamwork, creativity, and technical excellence among students. The E-Merge Student Club aims to continue organizing such engaging and skill-enhancing activities throughout the academic year.

PUBLICATION BY THE STUDENTS

1. Publication: "Design and Implementation of Charging Unit for Maritime Applications" Authors: Gokul S, Mohammed Zaki UI Iyan, Vignesh R, Rahul B V Journal: Journal of Engineering and Technology Management (JETM), Volume 72, Issue 2, April–June 2024, Page No. 123-131
2. Publication: "Hybrid charging of Ups using Solar and Wind Energy" Authors: Jayashree R, Anjaneya Reddy M, Chandra Kumar R Journal: Journal of Engineering and Technology Management (JETM), Volume 73, Issue 3, July–September 2024, Page No. 670-674
3. Publication: "100V/12V Charging Unit Using Zener Diode" Authors: Lokananda, Chandan A S Journal: Journal of Engineering and Technology Management (JETM), Volume 73, Issue 3, July–September 2024, Page No. 522-527

ASIAN CONFERENCE ON INTELLIGENT TECHNOLOGIES

The IEEE Student Branch (STB602159085) of Dr. T. Thimmaiah Institute of Technology (Dr. TTIT) hosted the International Conference (ACOIT-24): Asian Conference on Intelligent Technologies on 6th and 7th September 2024. This event centred on Artificial Intelligence and Networks, aimed at benefiting research scholars, technocrats, and industry professionals by fostering innovation and collaboration. The event was inaugurated by Dr. Syed Ariff, Principal of Dr. TTIT, who unveiled the conference souvenir and delivered inaugural address, emphasizing the importance of such platforms for advancing knowledge and technology. The keynote address by Dr. Chitradeep Majumdar, Senior Research Specialist at Nokia Standards, Bangalore, and IEEE Senior Member. His captivating session on 6G networks and emerging technological trends offered attendees a glimpse into the future of intelligent technologies.



Dr. Chitradeep Mujumdar addressing the gathering



Participants in the ACOIT-24

ALUMNI ACTIVITES

1st Batch Alumni Meet

A memorable event, welcoming the first batch of alumni back to campus on July 15th, 2024 has been a joyous and nostalgic occasion for everyone. Reconnecting alumni with their alma mater through meaningful activities like the tree plantation program

and thought-sharing session not only fosters a sense of belonging but also strengthens the bond between the past and present generations. The acknowledgment of the efforts by Mrs. Kasthuri Prasad, Mr. Naresh Pulluru, and the faculty coordinators emphasizes the teamwork and dedication behind the event's success. The event encouraged alumni to reflect on their college days while making a positive impact on the campus environment. The Dr. TTIT Alumni Association is appreciated for organizing an initiative that left a lasting impression, enriching the college's legacy for years to come. The following are the Alumni from the department of Electrical & Electronics Branch

1. Mr. Varaprasad
2. Mr. Kiran
3. Mr. srinivasaiah
4. Mrs. Zahida
5. Mrs. Kasthuri Prasad

The Invited guests were the Ex. Faculties - Dr. Manjunath A, Mrs. Vijaya, and Mr. Hemanth Kumar whose presence and contributions, which made the day even more memorable.

The meet was coordinated by Prof. Manjunatha Babu NS, Secretary, Prof. Ronald Lawrence. J, Convener, Dr.TTIT Alumni Association and Prof. Srinvas A, Dr.TTIT -DBI&DC.



First batch Alumni



The Guests during the tree plantation activity

BOOK DONATION



Mrs. Brindha, 2017 batch alumni donated books to our department library on June 6th, 2024

ALUMNI VISITS



Mr. Vikas (2nd Left) and Ms. Priyanka (2nd Right), 2017 batch Alumni visited the campus on 27th September 2024



Mr. Sandeep D'Mello, 2001 Batch Alumni visited the campus on 21st September 2024

Dr.TTIT PROJECT EXPO 2024

The "Dr.TTIT Project Expo-2024," was held on 25th May 2024 in association with the Institution's Innovation Council.

This event aimed to provide a platform for students to showcase their innovative projects.

4 batches of students took part in the event.

The best projects from each department was awarded with a certificate and a cash prize!



Mr. Yuvaraj and team won the 1st Prize for their project Design and fabrication of Retrofit Bi-cycle, guided by Prof. Jillian Rufus



BIRTHDAY CELEBRATIONS

In an initiative in the department, all the birthdays of the faculty and staff was celebrated in the year 2024 from the month of July.



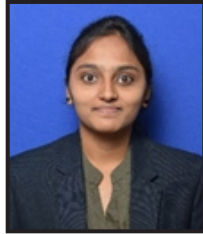
60th Birthday of Mr. Ayub Hussain, Foreman, EEE was celebrated on 21st October with a felicitation by the HOD Dr. N. Lakshmi pathy.



Mr. Ayub Hussain, Foreman, EEE on his 60th Birthday

PLACEMENTS 2023-24

Hearty Congratulations!

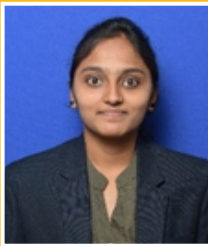


MUSKAN QURESHI

1GV20EE006

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BATCH TOPPER 2023-24



Congratulations to Ms.Muskan Qureshi (1GV20EE006) for securing Batch Topper of the Electrical & Electronics Engineering Department for the academic year 2023-24, with an outstanding CGPA of 7.84

We wish her continued success in all future endeavors.