

VOLUME 5

Department Newsletter

DEPARTMENT OF ELECTRICAL AND ELECTRONICS





Dr. Rajanna S.

Professor & Head
Department of Electrical & Electronics Engineering
Malnad College of Engineering, Hassan



Commitment to Quality Education



Fostering Innovation



Building a Better Tomorrow

A MESSAGE FROM HOD

Dear EEE students,

As we embark on this great journey into the world of electrical and electronics engineering, It's important to recognize the incredible potential each of you uphold. Let's ignite our journey with the brilliance of creativity and the energy of passion. "Success is not how high you have climbed, but how you make a positive difference to the world." Your work in electrical and electronics engineering has the power to change lives. I encourage you to collaborate, explore, and push the boundaries of what is possible. Together, let's create an environment where learning thrives and where we can all contribute to meaningful advancements in our field.

VISION

To become a department of excellence in the domain of electrical and electronics engineering producing competent engineers with research acumen having moral and social values.

MISSION

- Enhance industry and alumni interaction.
- Promote continuous quality up gradation of faculty and technical staff.
- Time to time modernization of departmental infrastructure to provide state of the art laboratories.
- Create research-oriented culture to invoke the desire and ability of lifelong learning among the students for pursuing successful career.
- Create and sustain environment of learning in which students acquire knowledge and learn to apply it professionally with due consideration of social and ethical values.

"Guiding Hands and Creative Minds"

"Meet the Team Behind This Issue"

Editorial Head

Kruthi S P

Assitant Professor

Department of Electrical and Electronics

Editorial Coordinators

H R Ganavi - 4MC23EE034

Mohammed Farmaan N A - 4MC23EE061

EEE STUDENT WINS AT IEEE IES NATIONAL SYMPOSIUM



Rakshith K R, Rohan H V and Bhavana B T of the Department of Electrical and Electronics Engineering received a Certificate of Achievement for winning the IEEE IES IDEATHON at the Two-day National Symposium on Emerging Trends in Sustainable Mobility and Transportation 2025, organized by the IEEE Industrial Electronics Society (IES), Bangalore Chapter, held at BMS College of Engineering on 21st–22nd November 2025. The department congratulates him on this remarkable achievement and wishes him continued success in his future endeavors.

PRAGYATHA 25-NATIONAL LEVEL ENTREPRENURIAL FEST

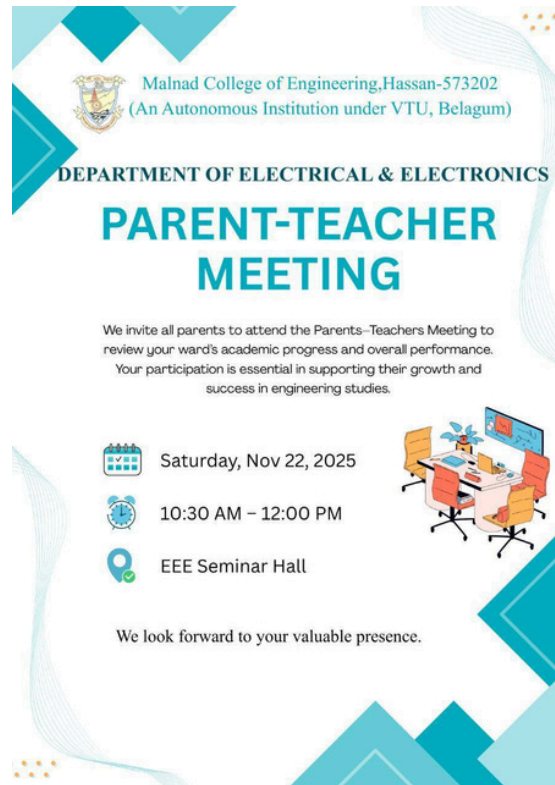
29-NOV-2025

EEE STUDENTS EMERGE AS WINNERS IN THE "ENTRORPHOSIS" INNOVATION CHALLENGE



Students of the Department of Electrical and Electronics Engineering, Varsha L. Gowda, Ekanth H. V., and Parinitha H. S., achieved a remarkable milestone by securing Winner positions in "Entrorphosis" at PRAGYATHA'25, a National-Level Entrepreneurial Fest organized by the ME-RIISE Foundation at Malnad College of Engineering, Hassan, on 29th and 30th November 2025. Their outstanding performance reflected exceptional innovation, creativity, and entrepreneurial thinking. This achievement highlights the department's commitment to nurturing innovation-driven minds and encouraging students to excel in national-level competitions, bringing pride and recognition to the institution.

MEETING - 2025



3The Department of Electrical and Electronics Engineering, Malnad College of Engineering (MCE), Hassan, organized a Parent-Teacher Meeting on 22th Nov 2025 at the EEE Seminar Hall from 10:30 a.m. to 12:00 p.m. The meeting aimed to strengthen the collaboration between parents and the institution to support the overall growth and academic progress of students.

During the session, faculty members interacted with parents to discuss students' academic performance, participation in departmental activities, and future plans for improvement. The event provided a valuable platform for exchanging feedback and ideas, helping create a strong connection between home and college to foster a better learning environment.

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Unified Approach to Detect... Unified Approach to Detection of Induction Motor Faults from Vibration Sig...

Unified Approach to Detection of Induction Motor Faults from Vibration Signals using Hilbert Transform based Autoencoder Features and Hybrid Efficient Machine Learning Algorithms

By <i>Are you this author?</i> Book Group Author Source Article Number Published Indexed Document Type Conference Abstract	Manikandan, GS Manikantan, Georl Shankar Viswanatha, M Viswanathara, M, G.; Chinmayee, RG (Chinmayee, R, G.); Thareesh, DR Thareesh, D, R.; Shekya, C Shekya, C.; Buthala, J Buthala, J, K.) IEEE View Web of Science Researcher and ORCID (provided by Clarivate) 2025 INTERNATIONAL CONFERENCE ON INTELLIGENT COMPUTING AND KNOWLEDGE EXTRACTION, ICKOE DOI: 10.1109/ICIKES63377.2025.1118571 2496 2025 2025-10-18 Proceedings Paper Meeting: 2025 International Conference on Intelligent Computing and Knowledge Extraction-ICKOE Location: Bangalore, INDIA Date: 20X-XX-XX, 2025 Sponsor: Institute of Electrical and Electronics Engineers Inc. Since vibration signals are sensitive to changes, they are regularly used to assess the condition of rotating electrical machines. These signals include vital data that makes it possible to find mechanical problems and identify unusual behaviors. Revealing important patterns from information in vibration data is now greatly assisted by machine learning. Once faults have been prepared and processed properly, ML systems are able to identify both the type and severity of each fault. Three-phase induction motor vibration signals are very important for fault diagnosis to ensure reliable operation and minimize downtime. In this study, vibration signals are collected and pre-processed by the Hilbert Transform to eliminate noise and outliers. The pre-processed signals are fed by an Autoencoder for feature extraction and subsequent classification by effective learning algorithms. Among the models under study, the proposed hybrid RF-GMM model provided the highest classification accuracy of 95.5%, outperforming RF (92.28%) and GMM (88.18%), reflecting its excellence in fault detection.
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Keywords

Addresses

Categories/Classification

Author Keywords: electric motor; fault detection; GMM; hybrid; RF

- 1 Mainad Coll Engrs, Dept Elect & Elect Engrs, Hassan, India
- 2 Mainad Coll Engrs, Dept Mech Engrs, Hassan, India
- 3 Mainad Coll Engrs, Dept Elect & Commn Engrs, Hassan, India

Research Areas: Computer Science
 Citation Topics 1 Clinical & Life Sciences 1,49 Dentistry & Oral Medicine 1,49 2792 Wisdom Tooth Extraction

Web of Science Categories Computer Science, Artificial Intelligence; Computer Science, Interdisciplinary Applications

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| December Edition |
2025

HANDS-ON FOUNDATION WORKSHOP ON PRODUCT DESIGN & INNOVATION

6 - DEC - 2025

EEE STUDENTS EXPLORE DESIGN THINKING AND PRODUCT DEVELOPMENT AT IISC BENGALURU



Students from the Department of Electrical and Electronics Engineering participated in a Hands-on Foundation Workshop on Product Design and Innovation, organized by the Centre of Excellence in Design (CED), Indian Institute of Science (IISc), Bengaluru, on 6th December 2025. The workshop introduced participants to the fundamentals of design thinking, product development, and innovation, providing practical exposure through interactive sessions and hands-on activities. Students gained valuable insights into transforming creative ideas into feasible engineering solutions while enhancing their problem-solving, teamwork, and innovation skills. The workshop served as an inspiring platform to nurture an entrepreneurial mindset and strengthen the participants' understanding of user-centric product design.

IEEE PELS MCE STUDENT BRANCH CHAPTER AT IEEE PELS BANGALORE AGM 2026



The IEEE PELS MCE Student Branch Chapter actively participated in the IEEE PELS Bangalore Subsection Annual General Meeting (AGM) 2026, held at Vemana Institute of Technology, Bengaluru, on 21 February 2026. During the event, Syed Iman, Chair of the IEEE PELS MCE Student Branch Chapter, presented the chapter's annual report, showcasing the technical events, workshops, and initiatives successfully organized during 2025. The AGM provided an excellent opportunity for professional networking, knowledge sharing, and discussions on emerging trends in Power Electronics. Representing the chapter at the event were Syed Iman (Chair), Kiran S H (Vice Chair), Dr. Kaveri K B (Faculty Advisor), and Neethu V S (Faculty Coordinator). The participation reflects the chapter's continued commitment to academic excellence, technical innovation, and active engagement within the IEEE community.

TOP 10 FINISH & CASH PRIZE WINNER



We are delighted to share that Mohammed Farmaan N A, H R Ganavi, Rayan Khan, and Chaithra M P participated in KRISHIMANTHAN 2026, a prestigious 36-hour hackathon organized by ME-RIISE Foundation, Malnad College of Engineering, Hassan. Demonstrating exceptional innovation, teamwork, and problem-solving skills, the team successfully secured a position among the Top 10 teams in the competition and was awarded a cash prize for their outstanding performance. Their achievement reflects their dedication, technical expertise, and commitment to developing impactful solutions for real-world agricultural challenges. The department congratulates the team on this remarkable accomplishment and wishes them continued success in their future endeavors.

SECOND-YEAR STUDENTS SHOWCASE HOMEMADE ORGANIC DELICACIES



The Department organized an Canteen Day, where second-year students enthusiastically participated by preparing or bringing a variety of homemade organic food items. The event was inaugurated by the Principal, who appreciated the students' efforts in promoting healthy and sustainable food habits. The participants creatively displayed and presented their dishes before the judging panel, highlighting the nutritional value and uniqueness of each item. The event provided an excellent platform for students to showcase their culinary talents while creating awareness about the importance of organic food and healthy living.

HANDS-ON PYTHON PROGRAMMING WORKSHOP FOR ELECTRICAL ENGINEERS

28 - MAR - 2026

EMPOWERING FUTURE ELECTRICAL ENGINEERS WITH PYTHON AND DATA-DRIVEN SKILLS



The Department of Electrical and Electronics Engineering successfully organized a two-day hands-on workshop on “Python Programming for Electrical Engineers” on 1st and 2nd April 2026 at the EEE Computer Centre. Designed for second- and third-year students, the workshop introduced participants to Python programming and its practical applications in electrical engineering. The sessions covered Python fundamentals, electrical circuit analysis, data analysis and visualization, signal processing techniques, and interactive hands-on exercises. A unique highlight of the workshop was that the sessions were conducted by second-year students enrolled in the Python Programming for Electrical Engineering (Emerging Technology Course), fostering peer learning and collaborative knowledge sharing. The workshop equipped participants with valuable programming skills essential for modern engineering applications and innovation.

FIVE-DAY HANDS-ON TRAINING ON ELECTRICAL SWITCHGEARS, PROTECTION & APPLICATIONS



The Department of Electrical and Electronics Engineering, through its Skill & Consultancy Centre, successfully organized a Five-Day Practical Hands-on Training on Electrical Switchgears, Protection & Applications from 7th to 11th April 2026. The programme provided students with comprehensive practical exposure to electrical switchgear systems, protection devices, and their real-world industrial applications. Expert sessions led by distinguished professionals from academia and industry enhanced participants' understanding of electrical safety, protection coordination, and modern switching technologies. The training equipped students with valuable technical competencies and hands-on experience, strengthening their industry readiness and practical engineering skills.

RESEARCH PAPER PRESENTATIONS AT IECCT 2026



Students of Malnad College of Engineering successfully presented two innovative research papers at the IEEE International Conference on Recent Advancement in Electrical, Computer and Communication Technologies (IECCT 2026), organized by MVJ College of Engineering, Bengaluru, on 11 April 2026. The research works were carried out under the guidance of Dr. Gowri Shankar M, Department of Electrical and Electronics Engineering, in association with Make in MCE.

The first study focused on Air Quality Index (AQI) forecasting using machine learning techniques based on data collected from Hassan District and was presented by Rifa Mariyam, Research Internship Student at Make in MCE. The second study explored multi-industry electrical load pattern analysis using time-domain and wavelet-based features with real-time data from the Hassan Industrial Area and was presented by Nayana K V, Rohan H V, and Sampath H J. We are proud to announce that both research papers have been accepted for publication in Scopus-indexed IEEE conference proceedings, highlighting the institute's commitment to research excellence and innovation.

HACKATHON PARTICIPATION



Sanju AM, Smitha K S, Varsha R, Shoba S S and Sneha G M successfully participated in Code Clash 2026, a two-day hackathon organized by the Department of International Affairs, Dayananda Sagar University, Bengaluru, held on 11th-12th April 2026. He was awarded a Certificate of Completion for his enthusiastic participation, collaborative spirit, and commitment to learning. The department congratulates him and wishes him continued success in his future endeavors.



The Department of Electrical and Electronics Engineering is proud to congratulate Deekshith V, a member of the 2025 graduating batch, on successfully qualifying GATE 2026 in both Electrical Engineering (EE) and Electronics & Communication Engineering (EC). This outstanding accomplishment reflects his dedication, perseverance, and strong academic foundation. Qualifying in two engineering disciplines is a remarkable achievement and serves as an inspiration to fellow students. We extend our heartfelt congratulations and wish him continued success in his higher studies, research pursuits, and future professional endeavors.

EMPOWERING STUDENT INNOVATION THROUGH DESIGN AND TECHNOLOGY



Students from the Department of Electrical and Electronics Engineering actively participated in Design & Innovation Clinic 2026, organized by the Central Manufacturing Technology Institute (CMTI), Bengaluru, from 16th to 18th April 2026. The event provided a platform for students to showcase innovative ideas, interact with industry experts, and gain valuable insights into product design, advanced manufacturing, and technological innovation. Through exhibitions, demonstrations, and expert guidance, participants enhanced their technical knowledge, creativity, and problem-solving skills while fostering an innovation-driven mindset. The experience inspired students to transform their ideas into practical engineering solutions and strengthened their commitment to research and innovation.

ACHIEVEMENTS AT MALNAD FEST SPORTS MEET

5 - MAY - 2026

CELEBRATING EXCELLENCE, DEDICATION, AND SPORTSMANSHIP



We are proud to congratulate our branch students for their commendable performance at the Malnad Fest Sports Meet. Through their dedication, perseverance, and sporting spirit, they showcased exceptional talent and brought recognition to the department. Their hard work, discipline, and commitment serve as an inspiration to fellow students. We applaud their efforts and wish them continued success in all their future sporting and academic endeavors.

BEST ACADEMIC PERFORMANCE AWARD

8 - MAY - 2026

RECOGNIZED FOR ACADEMIC EXCELLENCE



The department extends its heartfelt congratulations to Varsha L Gowda on being honored with the Best Academic Performance Award during Malnad Fest. This prestigious recognition is awarded to a student who has demonstrated outstanding academic excellence and dedication throughout the academic journey. Ms. Varsha's achievement reflects her consistent hard work, perseverance, and commitment to learning, bringing immense pride to the department. Her accomplishment serves as an inspiration to fellow students and highlights the spirit of excellence that our institution strives to nurture. We wish her continued success and many more achievements in the future.

MERIT INCENTIVE AWARDS & FAREWELL 2026

8 - MAY - 2026

CELEBRATING EXCELLENCE, RECOGNIZING ACHIEVEMENTS, AND BIDDING A HEARTFELT FAREWELL



The Department of Electrical and Electronics Engineering organized Merit, Initiatives, Awards & Farewell 2026 on 15th May 2026 at 3:00 PM in the EEE Department Seminar Hall. The event celebrated academic excellence, student initiatives, and outstanding achievements while bidding a warm farewell to the outgoing batch. The program featured an inspiring motivational address, presentation of awards and recognitions, token of appreciation to deserving individuals, and a variety of fun and entertainment activities that created a joyful atmosphere. The celebration concluded with refreshments, leaving everyone with cherished memories and best wishes for the graduating students.

SUB HEADING



A team comprising Dr. Gowri Shankar Manivannan, Prof. Kumaraswamy L.,, Dhyana Tejas Shukla C R, Irengbam Thoithoi, SAMARTH H BHARADWAJ successfully presented their research paper titled "Performance Analysis of Hilbert-Huang Transform and Grey Wolf Optimization Features based Hybrid CNN-GRU Model for Solar Power Forecasting in PV Street Lighting Systems" at the International Conference on Advanced Technologies and Innovations (ICATI 2026). The conference was held on 8th and 9th May 2026 at NSS College of Engineering, Palakkad, Kerala. The presentation highlights the institution's commitment to cutting-edge research and innovation in the field of forecasting and artificial intelligence, bringing recognition to the institute on an international academic platform.

FACULTY AND STUDENTS SHOWCASE INNOVATIVE ECG-BASED RESEARCH AT AN INTERNATIONAL CONFERENCE

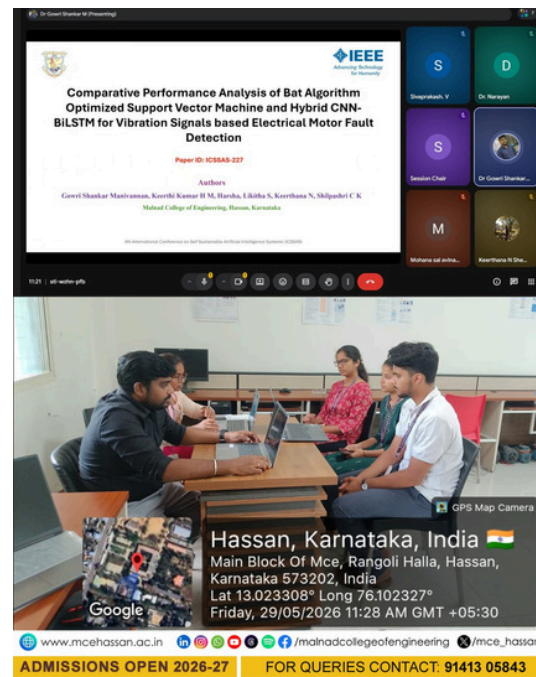


A team comprising Dr. Gowri Shankar Manivannan, Dr. Naveen Kumar C. M., Rujula P., Spandana R., Vardha L. Gowda, and Parinitha H. S. successfully presented their research paper titled "Singular Spectrum Analysis and Nonlinear Features-Based Hybrid Deep Learning Classification Models for Performance Analysis and the Detection of Supraventricular Tachycardia from ECG Signals" at the International Conference on Advanced Technologies and Innovations (ICATI 2026). The conference was held on 8th and 9th May 2026 at NSS College of Engineering, Palakkad, Kerala. The presentation highlights the institution's commitment to cutting-edge research and innovation in the field of healthcare and artificial intelligence, bringing recognition to the institute on an international academic platform.

RESEARCH PAPER PRESENTATION AT ICSSAS 2026

29 - MAY - 2026

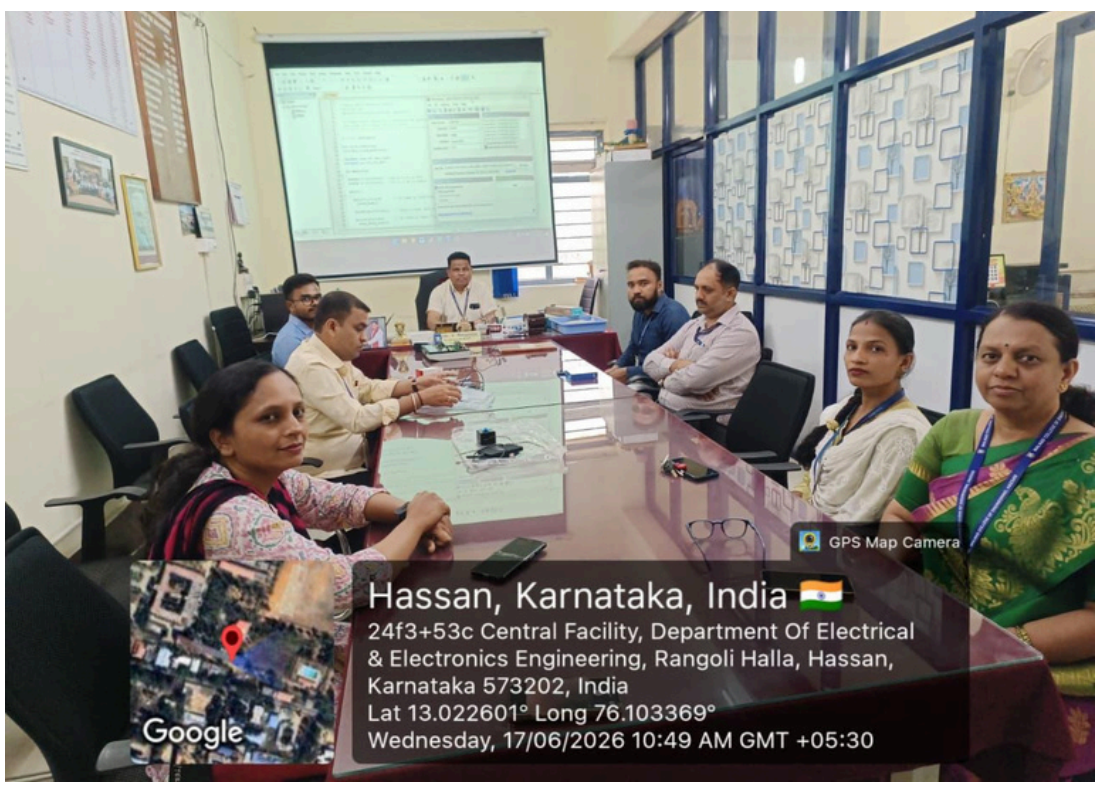
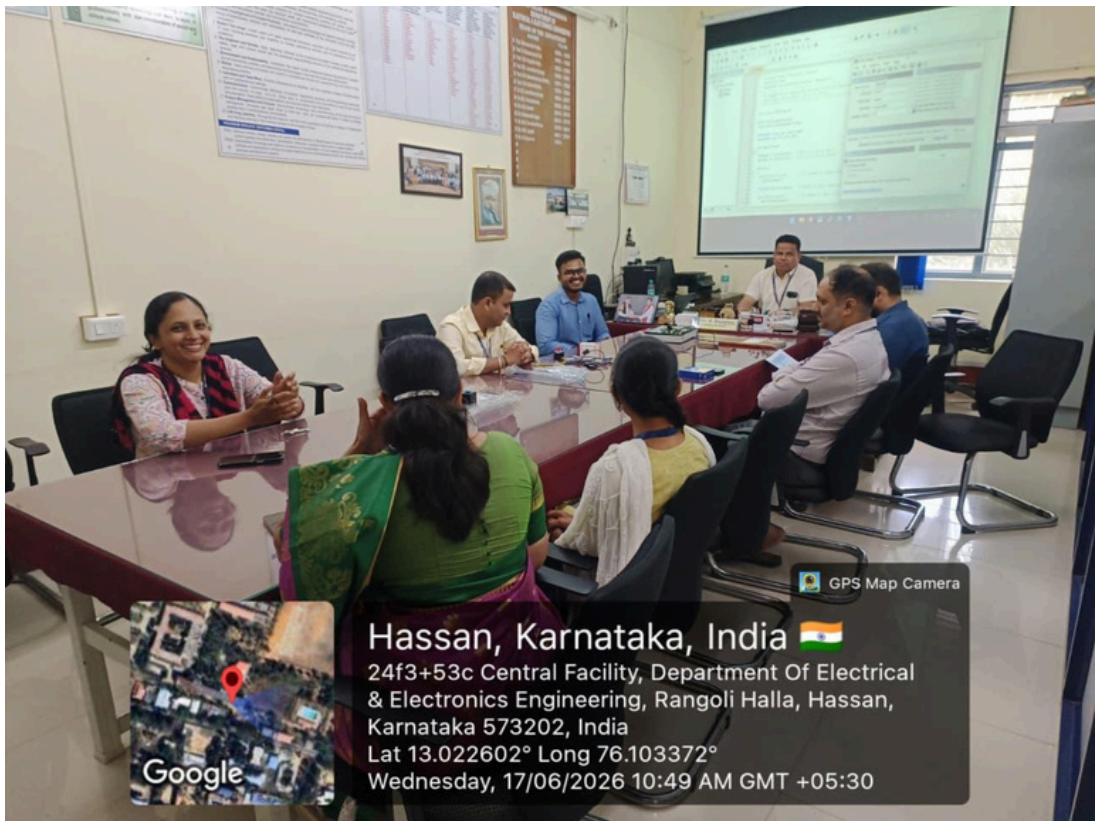
EEE STUDENTS PRESENT AI-BASED ELECTRICAL MOTOR FAULT DETECTION RESEARCH AT AN INTERNATIONAL CONFERENCE



The Department of Electrical and Electronics Engineering marked another research milestone as Dr. Gowri Shankar Manivannan, along with students Keerthi Kumar H. M., Harsha, Lakitha S., Keerthana N., and Shilpashri C. K., presented their research paper titled "Comparative Performance Analysis of Bat Algorithm Optimized Support Vector Machine and Hybrid CNN-BiLSTM for Vibration Signals-Based Electrical Motor Fault Detection" at the 4th International Conference on Self Sustainable Artificial Intelligence Systems (ICSSAS 2026) on 29th May 2026. The research explored advanced artificial intelligence and machine learning techniques for accurate electrical motor fault detection using vibration signal analysis. The presentation showcased the department's commitment to cutting-edge research, interdisciplinary collaboration, and innovation in the fields of artificial intelligence and electrical engineering, earning appreciation on an international academic platform.

DEMONSTRATION OF MICROCONTROLLER KIT FROM ECS SOLUTION FROM EXTERNAL RESOURCES PERSON

17 - JUN - 2026



MALNAD

COLLEGE OF ENGINEERING

HASSAN - 573 202, KARNATAKA

Nurturing Knowledge...
Building Futures...

✓

AICTE TRAINING AND LEARNING (ATAL)

OFFLINE FACULTY DEVELOPMENT PROGRAMME (FDP)

FOR THE ACADEMIC YEAR 2026-27

APPROVED

We are delighted to announce that the proposal submitted by the faculty members of the Department of Electrical and Electronics Engineering, Dr. Rajanna S. and Dr. Gowri Shankar M. for organizing the AICTE Training and Learning (ATAL) Offline Faculty Development Programme for the academic year 2026-27 has been approved.

FDP TITLE

Generative AI for Intelligent Power System Analysis with Applications in Forecasting, Optimization and Autonomous Grid Control

PROGRAMME COORDINATORS

COORDINATOR

Dr. Rajanna S.

Professor and Head
Department of Electrical and
Electronics Engineering
Malnad College of Engineering

CO-COORDINATOR

Dr. Gowri Shankar M.

Associate Professor
Department of Electrical and
Electronics Engineering
Malnad College of Engineering

FUNDING APPROVED

₹ 3.5 Lakh

This FDP will provide a valuable platform for academicians, researchers and industry professionals to explore the transformative role of Generative AI in modern power systems, intelligent forecasting, optimization techniques and autonomous grid control.

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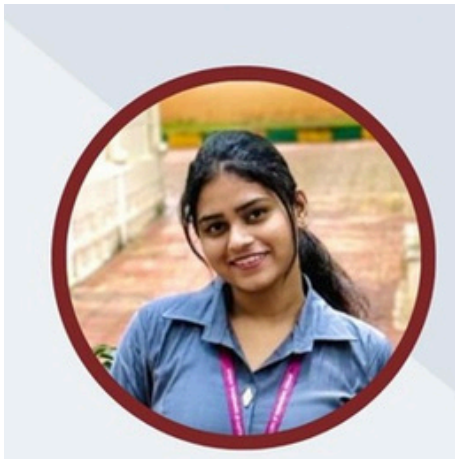
ADMISSIONS OPEN 2026-27

FOR QUERIES CONTACT: 91413 05843

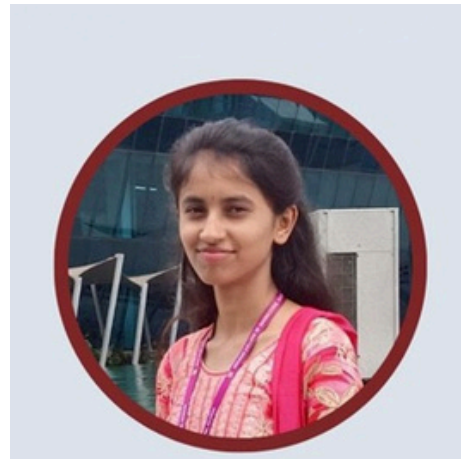
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CONGRATULATIONS ON BEHALF OF EEE FOR PLACEMENTS



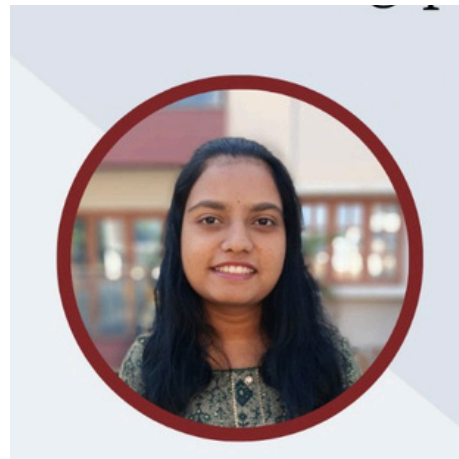
Name: Thanmyee D
Company placed: Toyota Kirloskar
Motor



Name: Keerthana C P
Company placed: Toyota Kirloskar
Motor



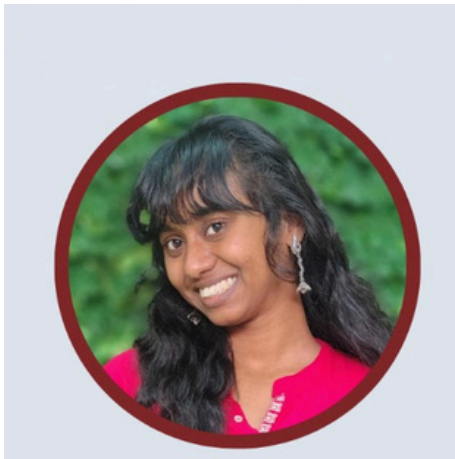
Name: Shobha S S
Selected for the: Google Student
Ambassador program 2026



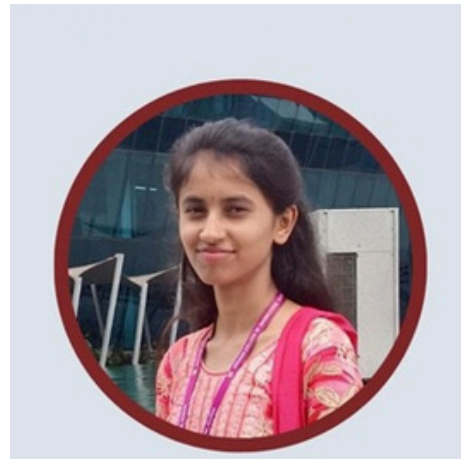
Name: R G Chinmyee
Company placed: HiveMinds



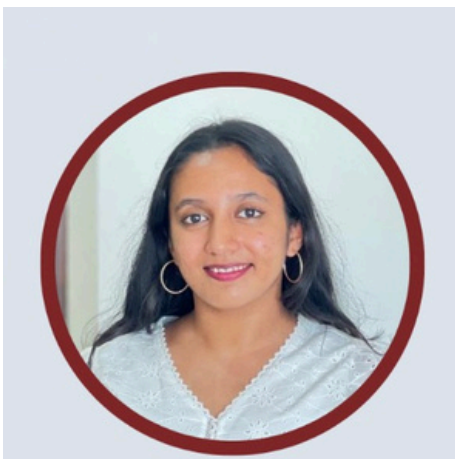
CONGRATULATIONS ON BEHALF OF EEE FOR PLACEMENTS



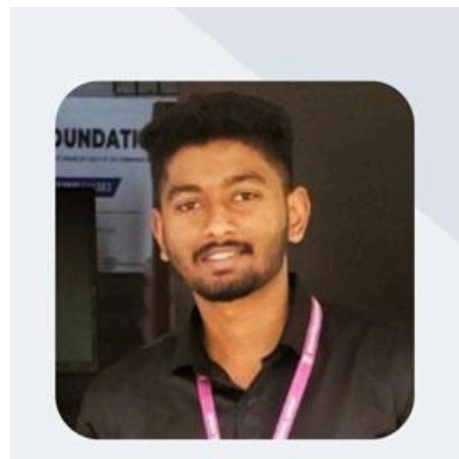
Name: Tejaswini S
Company placed: HiveMinds



Name: Keerthana C P
Company placed: Toyota Kirloskar
Motor



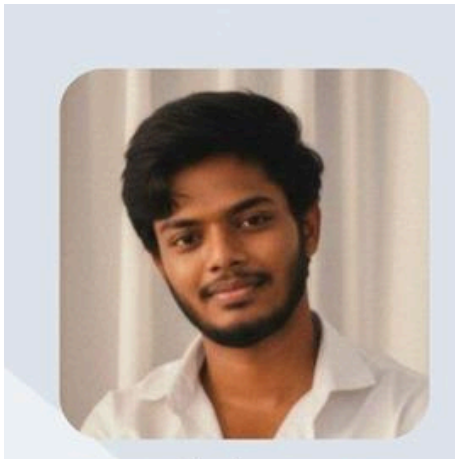
Name: Dhanyashree P
Company placed: HiveMinds



Name: Nithin D C
Company placed: ERM Groups
(Turbosteel)



CONGRATULATIONS ON BEHALF OF EEE FOR PLACEMENTS



Name: Srinivas B
Company placed: ERM Group
(Turbosteel)



Name: Varsha R
Selected for the Google Student
Ambassador Program 2026