

The logo for E-WAVE features the text "E-WAVE" in a bold, stylized font. The letters are dark grey with a white outline. A white line with a black outline, resembling a stylized wave or a signal path, runs through the letters, starting from the left, passing through the 'W', and ending at the right. The background is a light pinkish-grey with faint, thin white lines and small dots, suggesting a circuit board or a digital network.

Alumini Spotlight: Inspiring Journeys from Our EEE Department



Mr. Shreeshail Bilagi

Engineering Group Manager
Tata consultancy services, Bengaluru
BEC EEE Batch

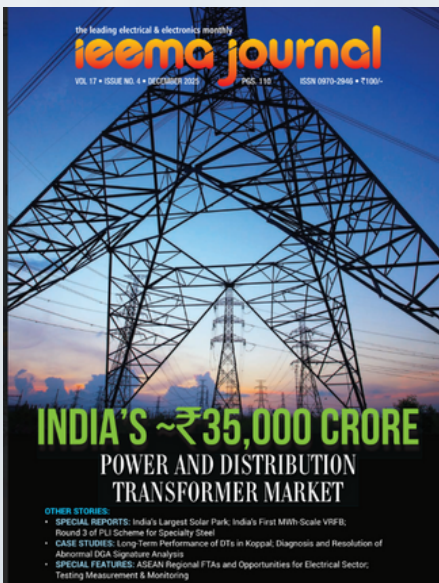
I am proud to be associated with BEC and feel privileged to have studied at BEC, Bagalkote. Joining BEC for my engineering course was a great achievement for me, and I am honored and delighted to share my experience about my college. Before joining the college, every alternate day when I used to pass through the college road, I would tell myself that I wanted to study in this college. I used to read the establishment year 1963 displayed on the college road board, which inspired me a lot, as it is one of the oldest colleges in Karnataka. Though I had many options to join other colleges in the state, I chose BEC because of its reputation. The initial days of college were a little scary, as I was entering a professional environment, but I gradually adjusted to the atmosphere. In my opinion, the student–teacher relationship at BEC is excellent.

Lecturers mentored not just through the curriculum, but also by sharing inspiring success stories of seniors and guiding us on how we could achieve our own goals in the future. I used to dream of the same success. When I passed out of college by securing 5th rank in Karnataka University, Dharwad, it was a great achievement for me, my lecturers, and the college, made possible through the collective efforts of everyone.

Initially joined the Indian software company Kshema Technologies, which gave me a strong foundation for professional growth. Since then, I have not looked back. I later joined Visteon Technical Center India and then General Motors Technical Center India, where I grew step by step in both technical and leadership roles.

Currently, I am working as an Engineering Group Manager at TCS. Throughout my career, I have visited many countries and gained valuable experience from different geographies. BEC fosters the overall development of students by providing equal opportunities to everyone—not only through academics, but also by encouraging participation in extracurricular activities such as team events, industrial tours, and other engagements. All these aspects play a vital role in a student’s holistic growth.

Journal Publication



A joint research case study between EEED BEC Bagalkote and GESCOM GoK, Titled

“A Century of Reliability: Long-Term Performance of Distribution Transformers in Koppal District” is published in the IEEMA Journal, Vol. 17, Issue 4, December 2025.

Authors: Dr.Basangoud Ronad (EE-BEC), Dr.Shivappa Sabarad (GESCOM, Munirabad)

IEEMA - Indian Electrical and Electronics Manufacturers’ Association established in 1948. IEEMA contribute to more than 95% of the power equipment installed in India. IEEMA Journal is the natural voice of Indian electrical industry.

CASE STUDY

A Century of Reliability: Long-Term Performance of Distribution Transformers in Koppal District

Through this paper, Dr. Shivappa V. Sabarad, Assistant Engineer Ele, DWU GESCOM, Gulbarga Electricity Supply Company Ltd, and Dr. Basanagouda F Ronad, Associate Professor, Department of E&EE, Basaveshwar Engineering College, present a unique case study of four distribution transformers in the Munirabad sub-division of Koppal district, which have been in continuous operation for 51-91 years without major failure. The paper underscores the relevance of these observations for modern transformer design, operation and maintenance, suggesting that long-term durability can be achieved through thoughtful engineering and effective upkeep, without solely relying on advanced monitoring technologies.

Distribution transformers (DTs) form the backbone of reliable electrical supply, yet their long-term performance is often challenged by environmental stresses, load variations and maintenance practices. This paper presents a unique case study of four DTs in the Munirabad sub-division of Koppal district, India, which have been in continuous operation for 51-91 years without major failure. The studied units range from 50 kVA to 300 kVA, serving diverse loads including agricultural, residential, industrial and street lighting systems. Detailed technical analysis of these transformers – including make, voltage ratio, vector group, winding type, cooling method and service history – reveals factors contributing to exceptional longevity. Findings indicate that robust manufacturing practices, copper windings, conservative loading, preventive maintenance and timely minor interventions have collectively enabled these transformers to operate reliably across decades. The paper underscores the relevance of these observations for modern transformer design, operation and maintenance, suggesting that long-term durability can be achieved through thoughtful engineering and effective upkeep, without solely relying on advanced monitoring technologies.

Photographic documentation and technical specifications are presented to substantiate these results, offering valuable guidelines for the next generation of high-reliability transformers.

1. Introduction

DTs are critical assets in power systems, serving as the final stage of voltage transformation that connects transmission networks to end consumers. Their reliability directly affects the quality and continuity of electricity supply in residential, agricultural and industrial sectors. Despite technological advancements, recent industry reports highlight a concerning trend: modern distribution transformers exhibit higher failure rates, shorter operational lifespans and frequent demand replacement within 15-20 years of service, primarily due to insulation breakdown, overloading or manufacturing and design limitations. These issues pose substantial financial and operational challenges for utilities worldwide.

In stark contrast to these global trends, a field survey conducted in the Munirabad GESCOM sub-division of Koppal district, Karnataka, revealed a remarkable longevity. Four legacy DTs, installed

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Alumini Webinar Series

Basaveshwar Engineering College, Bagalkot
Department of Electrical & Electronics Engineering
BEC-IEEE-PES-SBC(35261A)

Technical and Educational Activity

Alumni Webinar
on
The Future-Ready Cloud/Network Engineer
Emerging Trends, Cloud Infrastructure, and Industry Expectations.

09th Nov 2025
3:30PM - 4:30PM

Register

Resource Person

Mr. Shankar Hogalennavar
Data Center Network Engineer, TATA Consultancy Services Deutschland GmbH, Frankfurt, Germany

IEEE PES
Power & Energy Society

IEEE

The Department of Electrical and Electronics Engineering organized an Alumni Webinar titled “The Future-Ready Cloud/Network Engineer: Emerging Trends, Cloud Infrastructure, and Industry Expectations” on 09 December 2025 via Google Meet, coordinated by Prof. Sunita Tambakad along with student coordinators. The session was hosted by Mr. Shashidhar P, Mr. Tridhar P, and Mr. Annadanesh G, followed by a welcome address from Ms. Annapoorna and an introduction of the resource person by Ms. Akshata H.

The resource person, Mr. Shankar Hogalennavar, Data Center Network Engineer at TATA Consultancy Services Deutschland GmbH, Frankfurt, Germany, and a distinguished alumnus, delivered an insightful talk on modern trends in cloud and network engineering, cloud infrastructure, virtualization, data centers, and emerging areas such as cloud security, automation, hybrid and multi-cloud environments, and software-defined networking. He also highlighted industry expectations, essential skills, and certifications required to become a future-ready cloud/network engineer. The webinar offered valuable industry exposure and witnessed active student participation.

The Department of Electrical & Electronics Engineering, Basaveshwar Engineering College, Bagalkote, in association with IEEE Power and Energy Society – SBC (35261A), successfully organized an alumni expert webinar titled “Software Defined Vehicle.” The webinar aimed to educate students on emerging automotive technologies, industry expectations, and future career opportunities in the software-driven vehicle domain. A total of 101 students participated in the session.

Basaveshwar Engineering College, Bagalkot
Department of Electrical & Electronics Engineering
BEC-IEEE-PES-SBC(35261A)

Technical and Educational Activity

Alumni Webinar
on
SOFTWARE DEFINED VEHICLE.

14th Nov 2025
10:00AM - 11:00AM

Register

Resource Person

Mr. Shreeshail Bilagi
Engineering Group Manager, TATA Consultancy Services

IEEE PES
Power & Energy Society

IEEE

The resource person, Mr. Shreeshail Bilagi, Engineering Group Manager, Tata Consultancy Services, and a distinguished alumnus of the department, delivered an insightful talk on the evolution of software-defined vehicles. The session covered key aspects such as Model-Based System Engineering, vehicle connectivity technologies including V2V, V2I, and cloud integration, and the transition from traditional to centralized and zonal vehicle architectures. The webinar enhanced students’ understanding of modern automotive systems and motivated them to explore careers in the automotive and software domain.

Student Development Programme on “From Concept to Market: Design, Development and Manufacturing of Electric Motors”

The Department of Electrical and Electronics Engineering, Basaveshwar Engineering College, Bagalkote, organized a three-day Student Development Programme (SDP) titled “From Concept to Market: Design, Development and Manufacturing of Electric Motors” during 11–13th December 2025. The programme was coordinated by Prof. Mahantesh Chikkadesai and Prof. Basavaraju S. Hadapad. The SDP aimed to enhance students’ understanding of electric motor design by integrating theoretical concepts with industrial practices.

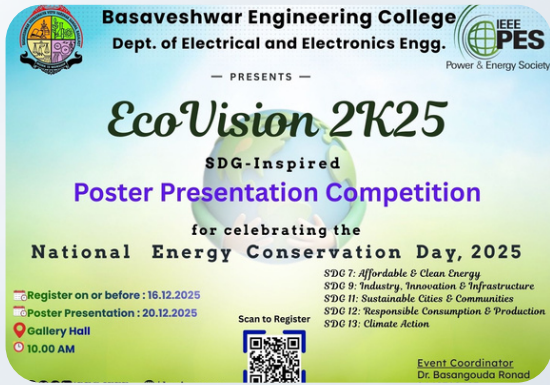


The programme began with sessions on the industrial importance, classification, and applications of electric motors, followed by an overview of the motor design process from concept to product. Students were introduced to magnetic materials and raw material selection, highlighting their influence on motor efficiency, performance, and reliability. These sessions provided a strong foundation by linking core electrical engineering principles with real-world applications.

A hands-on demonstration on motor assembly and winding techniques helped students practically correlate analytical concepts with actual motor construction. 3 days covered testing, quality assurance, performance evaluation, fault diagnosis, and industrial standards (IS/IEC). Sessions on product packaging, branding, and market readiness, along with an interactive discussion on industry challenges and future trends, offered valuable industry exposure. The SDP concluded with a valedictory function and certificate distribution.



National Energy Conservation Day Celebration and Poster Presentation Competition



The Department of Electrical and Electronics Engineering, Basaveshwar Engineering College, Bagalkote, organized the National Energy Conservation Day celebration along with a student poster presentation to create awareness on the importance of energy conservation and sustainable practices.

The chief guest, Mr. Madivalappa Indi, Assistant Engineer, HESCOM, Bagalkote, addressed the gathering and emphasized that excessive and careless use of electrical energy and fuel resources leads to serious environmental and energy-related issues. He encouraged the adoption of simple yet effective practices such as switching off electrical appliances when not in use, using LED lighting and energy-efficient devices, promoting public transportation, & adopting renewable energy sources like solar and wind energy.



Presiding over the programme, the Principal, Dr. B. R. Hiremath, expressed that every day should be treated as Energy Conservation Day and stressed the need for students to evolve into responsible and environmentally conscious citizens. The Head of the Department, Dr. R. L. Naik, spoke about various energy conservation studies carried out by students and motivated them to continue undertaking innovative and socially relevant activities.

The programme commenced with an address by the Coordinator, Dr. Basanagouda Ronad, who explained the significance of National Energy Conservation Day and highlighted ongoing energy conservation initiatives in the department. Prof. Basavaraj Hadapad welcomed the guests and participants. The event began with a prayer by Ms. Yashodha and concluded with a vote of thanks by Prof. Mahantesh Chikkadesai. Faculty members, Deans, Heads of Departments, and a large number of students actively participated, making the programme a meaningful and impactful celebration.



Demonstration of Renewable Energy Devices in SCADA, Renewable Energy Laboratory and Energy Park



The Department of Electrical and Electronics Engineering, in association IEEE PES Student Chapter, organized an Outreach Activity on 12th December 2025 at the BEC Energy Park and SCADA Laboratory. The program was attended by 21 students from Government Higher Secondary School, Mushtigeri, Badami Taluk. The students were introduced to SCADA systems, power distribution, and renewable energy technologies through live demonstrations. Faculty members explained real-time monitoring of electrical parameters, energy-efficient lighting systems, and the working of renewable energy devices such as solar water pumps and solar water heaters. The interactive session encouraged curiosity, improved practical understanding, and motivated students to explore careers sustainable energy technologies.



Laboratories visit from Karnataka Solar System Industry



The Department of Electrical and Electronics Engineering, Basaveshwar Engineering College, Bagalkote, hosted an industrial interaction with Karnataka Solar System Industry, during which Mr. Gagan Sharma, Chief Engineer, along with company engineers, visited the departmental laboratories. The industry team interacted with faculty members Dr. R. L. Naik, Dr. Sangamesh Goudappanavar, Dr. B. F. Ronad, and Prof. M. L. Chikkadesai, who presented the ongoing research activities, student projects, and laboratory facilities, particularly in the areas of solar photovoltaic systems, renewable energy, and power electronics. The visit facilitated meaningful technical discussions, strengthened industry-academia collaboration, and opened avenues for future cooperation in research, internships, and project-based learning.

Faculty Achievements



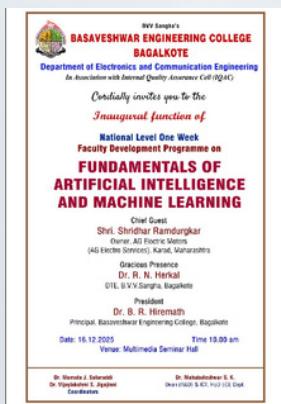
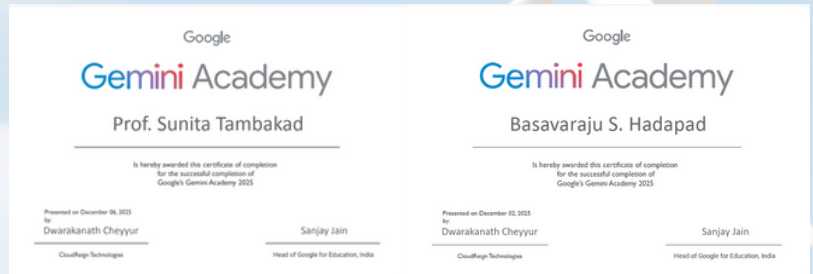
Dr. Basanagouda Ronad, Associate Professor in the Department of Electrical & Electronics at Basaveshwara Engineering College, Bagalkot, was invited by The Institution of Engineers (India), Belagavi Local Centre, to deliver a keynote address for National Energy Conservation Day 2025. The event, held on December 15, 2025, at the S G Balekundri Institute of Technology, featured Dr. Ronad speaking on the theme **"Illuminating the path to Sustainability"**.

Mrs. Sunita Tambakad of Basaveshwar Engineering College, Bagalkot, successfully participated in an Online One Week Faculty Development Program (FDP) titled **"The Art of Professional Growth: A Faculty Enrichment Program"**. This program was organized by the Department of Electrical Engineering at SKN Sinhgad College of Engineering, Pandharpur, in association with the IEEE Student Branch SKNSCOE Korti, Pandharpur, and took place from 15th to 20th December 2025.



Prof. Sunita Tambakad successfully participated in a One Week Online Faculty Development Programme titled **"Universal Human Values and Ethics in NEP-2020"**, held from 21st November to 27th November, 2025. The programme was organized by the Department of First Year Engineering and Technology at Dr. J. J. Magdum College of Engineering, Jaysingpur, in association with the UHV Team AICTE.

Prof. Sunita Tambakad and Prof. Basavaraju S. Hadapad successfully completed Google's Gemini Academy 2025, presented on December 02, 2025, by Dwarakanath Cheyyur of CloudReign Technologies and Sanjay Jain, Head of Google for Education, India.



Dr. Sangamesh Goudappanavar, Prof. Sunita Tambakad, and Prof. Apoorva Kulkarni successfully participated in a One Week National Faculty Development Programme (FDP) on **"Fundamentals of Artificial Intelligence and Machine Learning"**. The program was hosted at Basaveshwar Engineering College (BEC), Bagalkote, from December 16 to December 20, 2025, providing them with advanced insights into the evolving landscape of AI and ML technologies.

Dr. R. L. Naik, Dr. B. F. Ronad, and Dr. Sangamesh Goudappanavar successfully participated in the National Capacity Building Program on **"Research and Publications"**, a comprehensive two-week online winter course organized by IIT Dharwad from December 8th to 19th, 2024.



Institute

Vision

To be an institution of excellence in education, research and innovation for a sustainable future.

Mission

1. Develop professionals globally for future requirements.
2. Nurture a culture of research, innovation and entrepreneurship.
3. Promote collaborations, extension and outreach programs for addressing industrial and societal needs.
4. Imbibe moral and ethical values.
5. Foster ecological and environmental consciousness.

Department

Vision

To be in the global forefront of education, research and innovation in Electrical and Electronics Engineering to meet energy, ecology, industrial and societal needs.

Mission

1. Develop globally competent professionals adapting to technological transformations in the field of Electrical and Electronics Engineering.
2. Promote collaborations with higher learning institutes and industries for research, innovation and entrepreneurship.
3. Imbibe moral & ethical values and render empathetical services to energy, ecology & environmental issues.

Programme Educational Objectives (PEO)

1. The graduates will be able to design the solutions to industrial challenges.
2. The graduates will be able to take up higher studies and research.
3. The graduates will be able to engage in multidisciplinary innovation and entrepreneurship activities.
4. The graduates will be able to adopt emerging technologies to provide solutions to the societal and environmental issues.

Programme Specific Outcomes (PSO)

1. Graduates shall be able to specify, formulate and analyze concepts used in power systems and electrical machines as per requirements of power & energy sector.
2. Graduates shall be able to identify, analyze, design and test technologies used in power electronics, electronic & signal processing circuits and control systems.
3. Graduates shall be able to apply conventional concepts and contemporary tools to design, simulate and analyze electrical and electronic systems for real time applications through hands on learning gained in SCADA, energy systems and power electronics laboratories.

"Dream is not that which you see while sleeping, it is something that does not let you sleep."

-Dr. A.P.J. Abdul Kalam

Aerospace Scientist & Former President of India

Editorial Team

Editorial Advisor

Dr. R. L. Naik

Head of the Department

Editor-in-Chief

Prof. Mahantesh Chikkadesai

Designed by

Mr. Bharatesh B. Mr. Shrikant G. Patil



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BEC IEEE PES



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