



ECE Bi-Annual News Letter

October 24 – March 25

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

[NBA Accredited]



The Department of Electronics and Communication Engineering was established in the year 2008 and has been in the forefront of imparting quality education to the students. The department has a strong undergraduate program with an intake of 120 students. At present, 10 faculty members are pursuing PhD degree. UG students are encouraged to undertake various mini-projects in the lab. The students undergo soft skill programs to meet the needs of employability. The unwavering commitment towards students along with a pool of experienced and dedicated teaching faculty makes the department distinguished.

DEPARTMENT VISION

To be the Department of Electronics and Communication Engineering striving hard to develop responsive teaching-learning methodology, research and employable skills in allied fields by empowering students to become globally competent and socially responsible citizens.



DEPARTMENT MISSION

M1: To develop an active learning environment that ensures participation of students in both curricular as well as co-curricular activities.

M2: To foster research, innovation and creativity amongst students.

M3: To encourage development of entrepreneurial skills.

M4: To inculcate, amongst students, team-spirit, leadership qualities, positive attitude and effective communication skills to cater societal needs.

PEOs

PEO1: Be Successful in their professional career, higher studies and research by providing contextually relevant academic environment.

PEO2: Be committed citizens with social and professional concern.

PEO3: Demonstrate leadership qualities and managerial skills in heterogeneous team globally.

PEO4: Be independent lifelong learners to keep the pace of technological change and industry expectations.



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Freshers Welcome & Inauguration of WAVECE

A Freshers' Welcome function, along with the inauguration of WAVECE (the student association), was organized on 7th October 2024 for 3rd-semester students.

The Chief Guest, Shri Naveed Mulla, Branch Manager of B+M Surface Systems India Pvt. Ltd., emphasized the importance of hard work and shared valuable insights on interview preparation and industry expectations. He encouraged students to contribute meaningfully to society and support the growth of India's economy.

The Principal, Dr. B. R. Patagundi, urged students to make the best use of the institute's facilities, highlighting that the college provides infrastructure on par with top institutions at lesser fees.

Dr. Shankargoud Patil, Head of the Department, welcomed the new students and stressed the importance of maintaining a strong academic focus. The event concluded with a vote of thanks proposed by WAVECE Coordinator, Prof. Sujay Gejji.

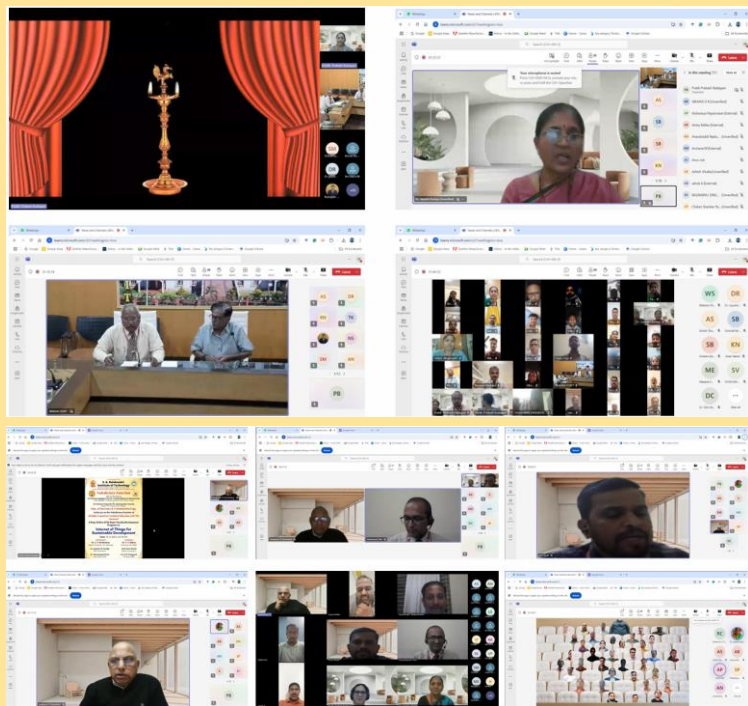


Awareness on BE Honors/ Minors



An awareness session on BE Honours Registration was organized by the Department of ECE on 23-10-2025 for the 3rd and 5th semester students. The session aimed to provide comprehensive information regarding the registration process for the BE Honors and Minor Degree Programme, as per the Visvesvaraya Technological University (VTU) circular notification. BE Honours Coordinator, Prof. Sujay Gejji enlightened students about the eligibility criteria, registration process, and benefits of pursuing BE Honors & Minors along with their regular B.E./B.Tech. degree. HOD Dr. Shankargoud Patil motivated students to opt for BE Honours /Minors.

FDP on IoT for Sustainable Development



An ATAL-sponsored Online Faculty Development Program (FDP) on "Internet of Things for Sustainable Development" was held from 10th to 16th December 2024. The program aimed to provide insights into how IoT can contribute to sustainable development through energy-efficient technologies, smart systems, and green computing practices. The FDP was inaugurated on 10th December, with Dr. F. V. Manvi presiding over the function. Principal Dr. B. R. Patagundi addressed the participants, encouraging them to make the most of the sessions. Dr. Shankargoud Patil, HOD of ECE, welcomed the attendees, and Dr. Jayashri Rudagi, the FDP coordinator, gave a brief overview of the event.

A total of 13 technical sessions were conducted, covering a wide range of topics in IoT and sustainability. Sessions included "Energy Management in IoT" by Dr. Jayashri M. R., "Industrial IoT" by Mr. Abhishek Lathe, "Hardware Security" by Dr. Meghana K., and "Programmable City" by Dr. Pavanakumar. Two sessions on "IoT-Based Environmental Monitoring" were delivered by Dr. Sunil Harakannanavar. Other sessions included "Sustainable IoT Devices" by Mr. Harshit Reddy, "Improved Recyclability and Reparability" by Dr. Sujata Patil, "IoT for Electrical Vehicles" by Dr. Sanjeev Nayak, and "Green Computing in IoT" by Shivanand Gowda K. R. Further, "Transforming IoT Systems with 5G" was presented by Dr. Ramakrishna S., "Sustainable Practices in Various Sectors" by Dr. Nandini Sinal, and "IoT Devices to Reduce Carbon Footprint" by Dr. C. P. Ravikumar.

The valedictory session was held on 16th December 2024, with Dr. C. P. Ravikumar as the Chief Guest. Prof. Kiran Nandi proposed the vote of thanks.

KAUSHALYA, Mini Project Exhibition - 2024-25



Department of Electronics and Communication Engineering organized Kaushalya today on 14/12/2024 for the 5th sem students, where in a total of 35 working models were exhibited by the students. Ms. Shalini J, Software Engineer from Commonwealth Bank of Australia and Ms. Suprita M, Data Engineer, from Deloitte were the Chief Guests and Judges for the exhibition. Head of the Department Dr. Shankargoud Patil and Staff members were present on the occasion. Dr. F. V. Manvi, Chairman, GC, SGBIT, Principal Dr. B. R. Patagundi, enriched the dignity of the exhibition. Prof. Lohit Dalal coordinated the event.



academic and career advantages of pursuing BE Honors or a Minor degree alongside their regular program.

HOD Dr. Shankargoud Pail encouraged students to opt for BE Honors /Minors



The session was interactive, with students actively engaging and clearing their doubts. Key points discussed included: Course structure and credit requirements, Career advantages of BE Minors, Future prospects of dual specialization

Workshop on “Data Analytics with Power BI”

A three-day workshop on “Data Analytics and Power BI” was held from March 18 to March 20, 2025, at SGBIT, Belagavi, in association with IEEE NKSS and WAVECE. The event was inaugurated by Principal Dr. B. R. Patagundi, who emphasized the importance of industry-oriented skills. Dr. Shankargoud Patil, HOD, welcomed the participants, and Mrs. Rekha Guravvagol from Dattamsh, the guest of honor and resource person, shared insights on career prospects in data analytics and Power BI. The workshop featured hands-on sessions covering Power BI Desktop, DAX functions, data modeling, report visualization, and dashboard creation. Participants worked on three structured projects, and on the final day, submitted independent projects—two of which were awarded during the valedictory session.

MATLAB Workshop

A one-week workshop on “MATLAB for Computational Techniques for Engineering Applications” was organized by the Departments of ECE and Civil Engineering at SGBIT, Belagavi, from 3rd to 11th March 2025, in association with IEEE NKSS and WAVECE. The workshop aimed to equip M.Tech students and research scholars with MATLAB skills to solve engineering problems.

Key topics included MATLAB fundamentals, scripting, plotting, debugging, linear and nonlinear optimization, statistical analysis, probability, hypothesis testing, and numerical methods. The final day featured project work, presentations, and a valedictory session. Resource persons were Dr. Shridhar (Civil) and Prof. Sujay Gejji (ECE), and the event was coordinated by Prof. Parashuram Savant.



Awareness on Minors/Honors Degree

The Department of ECE organized an awareness session on 6th March 2025 for 3rd and 5th semester students to provide updated information on the BE Honors and Minor Degree registration process, as per the latest VTU guidelines. Prof. Sujay Gejji, BE Honours Coordinator, briefed students on the eligibility, registration procedure through the VTU portal, and the



The workshop saw active participation from 106 students and was successfully coordinated by Prof. Anita Patil, Prof. Sujay Gejji, and Mr. Pratik Badagavi.

The sessions helped bridge the gap between academic learning and real-world data analytics practices. The workshop concluded with positive feedback and a call for more such industry-driven training programs in the future

Faculty Achievements

Publications:

1. Prof. Shilpa Bhairanatti published a paper titled “Deep learning based hybrid precoder for optimal power allocation to improve the performance of massive MIMO” in Indonesian Journal of Electrical Engineering and Computer Science, Scopus Q3, DOI: 10.11591/ijeecs.v36.i1.pp570-582, Oct 2024.
2. Dr. Shankargoud Patil presented a paper titled “MIMO and Chaotic Communication: Systematic Literature Review” at ICICC: International Conference on Innovative Computing and Communication, Scopus, DOI: https://doi.org/10.1007/978-981-97-4228-8_3, Oct 2024.
3. Dr. Sidramayya Matad and Mrs. Sanmati Bedakihale published a paper titled “Speech enhancement by using novel multiband spectral subtraction method along with a reduction of the cross spectral component” in Indonesian Journal of Electrical Engineering and Computer Science, Scopus, DOI: <http://doi.org/10.11591/ijeecs.v36.i2.pp933-941>, Nov 2024.
4. Prof. Shilpa Bhairanatti published a paper titled “Spectrum Management, Power Optimization and Interference Cancellation in Ultra-Dense Heterogeneous Femtocell Networks” in Journal of Advances in Information Technology, Scopus Q3; SCI, DOI: 10.12720/jait.15.11.1221-1228, Nov 2024.
5. Mr. Sujay Gejji presented a paper titled “Deep Learning Approaches for Solving Challenges in Computer Vision Applications and Exploring Evolving Patterns” at 2024 7th International Conference on Contemporary Computing and Informatics (IC3I), Scopus, DOI: <https://doi.org/10.1109/IC3I61595.2024.10829128>, 15 Jan 2025.
6. Mr. Pratik Badagavi presented a paper titled “Design and Performance Analysis of Origami Based Reconfigurable Hexagonal Flasher Antenna” at 2024 International Conference on Innovation and Novelty in Engineering and Technology (INNOVA), Scopus, DOI: <https://doi.org/10.1109/INNOVA63080.2024.10847053>, 23 Jan 2025.
7. Prof. Anita Patil presented a paper titled “Dynamic Resource Assignment Technique for 6G Wireless Systems” at IEEE International Conference on Advanced Networks and Telecommunications Systems, DOI: <https://doi.org/10.1109/ANTS63515.2024.10898973>, 03 Mar 2025.
8. Dr. Narayan A. Badiger published a paper titled “Fin-FET Enabled High-Speed PLL Design for Low Power Applications” in IETE Journal of Research, Scopus Q2; SCIE, DOI: <https://doi.org/10.1080/03772063.2025.2470364>, 05 Mar 2025.

PhD:

- Dr. Narayan A. Badiger was awarded a Ph.D. in November 2024 in the domain of VLSI Design.
- Dr. Manjula Emmi was awarded a Ph.D. in January 2025 in the domain of Wireless Communication and Optical Fiber Communication (OFC).

Student’s Achievements

Projects sponsored by KSCST, Govt. of Karnataka

Sl. No.	Project Reference No.	Project Title	Name of Guides	Name of the Students
1.	48S_BE_0469	Solar Powered Multi-Biometric Authenticated ATM	Dr. Narayan A. Badiger Prof. Anita S. Patil	Ms. Bhavana M. Koujalagi Mr. Arun B. Rathod Mr. Deepank M. Ragi Ms. Shweta R. Bathula
2	48S_BE_1133	Automatic Bus Fare Collection System with Location Tracking and Safety Alerts	Dr. Sidramayya Mathad Prof. Anandraddi N.	Ms. Vaishnavi A. Marathe Ms. Vaishnavi K. Tikke Ms. Dhanashri P. Kulkarni Mr. Dhareppa Kurabet

Academic Excellence

Sem	Rank	Name	%	Topper
IV	1	Sahil Patil	87	 Sahil Patil
	2	Srushti Bailurkar	85.6	
	3	N V Shrihari	84.78	
VI	1	Shubhangi Gurav	89.75	 Shubhangi Gurav
	2	Vaishnavi Anil Marathe	89.38	
	3	Poornima Hanabar	88.00	
VIII	1	Soumya Halalli	90.8	 Soumya Halalli
	2	Sumeet R Murgod	89.2	
	2	Varsha Karajagi	89.2	
	3	Anusha S	88.4	
	3	Ashwini K K	88.4	

Placements



Newsletter Editorial Committee:

Advisory Committee:

Dr. Shankargoud Patil [HOD]

Chief Editor:

Prof. Sujay Gejji.

Editorial Members:

Dr. Anita Patil & Dr. Narayan Badiger
Mr. Pratik Badagavi, Instructor

Student Members:

Mr. Suprit Ragi, Mr. Vishal Ainapure