

Photon

In Pursuit of Innovation...

SGBIT

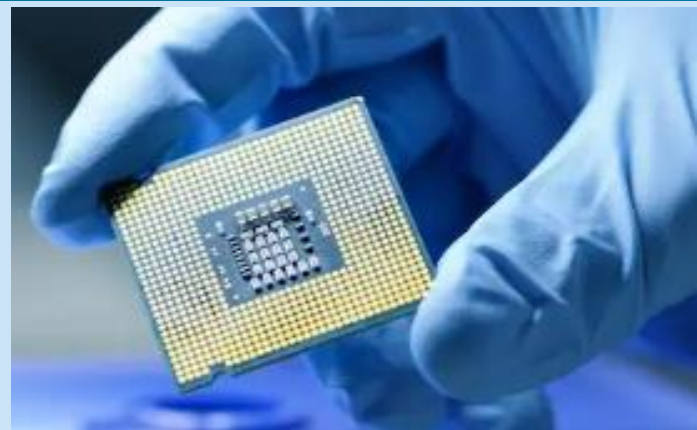


ECE Bi-Annual News Letter

April 23 – Sep 23

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.



S. G. Balekundri Institute of Technology

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Industrial Visit to Kaynes Technology India Ltd

An industrial visit to Kaynes Technology India Ltd., Mysore, was organized on April 25, 2023, for 8th sem students by the ECE department. A total of 46 students and two faculty members participated in this visit. Staff of the company, Mr. Naresh introduced about his company Kaynes Technology and its operations. He briefly explained industry standards and discipline. The visit included demonstrations of PCB designing, soldering, and component mounting. Surface-mount technology (SMT) and the continued use of through-hole technology (THT). The students were accompanied by Prof. Kiran Nandi & Prof. Sanmati Bedakihale.



Industrial Visit to Master Control Facility (MCF), Hasan

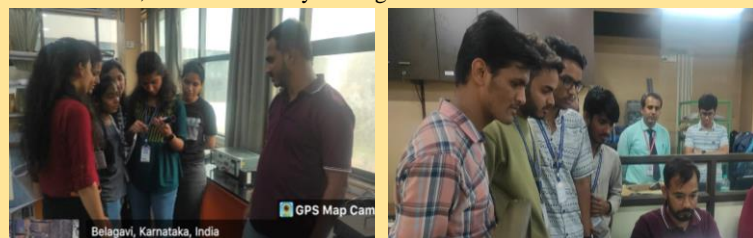
An industrial visit to Master Control Facility (MCF), Hasan, was organized on April 26, 2023, for 6-sem students. A total of 40 students participated in this visit. Mr. Jagannath S.N., Dy. Manager-HRD, PPEG, ISRO, introduced MCF and its operations through video presentations. The one-hour video presentation covered the history of communication processes, starting from the beginning of human life to the present day. It also showcased satellite operations and provided insight into data collection and storage. Additionally, the presentation discussed how communication occurs through mobile phones and television. The students were accompanied by Prof. Girish Kadakol and Prof. Megha K.



Industrial visit to Servocontrols & Hydraulics India Pvt. Ltd.

An industrial visit to Servocontrols & Hydraulics India Pvt. Ltd., Belagavi, was organized on August 7, 2023, for 4th-semester students. A total of 61 students participated in this visit. Mr. Pradeep & Mr. Vijayprabhu, staff of Servocontrols, introduced the company's profile, manufacturing of various products, and services. They showcased the software section, demonstrating designing using LabView tool and interfacing with sensors and transducers. The students visited workshops to understand product applications. The industry also contributed in satellite communication. Resource persons also discussed the history of servo controllers and their clients.

The students were accompanied by Prof. Girish Kadakol, Prof. Anandaraddi Naduvinmani, and Prof. Soumya Halagatti



Farewell to Final Year students

The Farewell for the 8th Semester Students of the 2019-2023 Batch was held on June 2, 2023, organized by the WAECE association. Many students shared their cherished memories associated with the college during the event. Additionally, BE honours students were felicitated during the same event. The students were warmly welcomed by Prof. Sujay G, and the HOD, Dr. Suresh Akkole, extended their best wishes. In his presidential remarks, the Principal, Dr. B. R. Patagundi, encouraged the students to serve society and country.



NSS Activity: Plantation and adoption of Plants



The NSS Activity of Plantation and Adoption of Plants, was scheduled on December 21, 2022, in the hostel premises. 32 students actively participated. During the activity, students planted various plants such as Mango, Guava, and Curry leaves, and also adopted them. This activity, not only helped students in building social responsibility and leadership qualities but also contributed to the environment and society by enhancing green cover, improving air quality, and biodiversity conservation. The event was coordinated by Prof. Sanmati B

Parents Meet

Parents Meet for 4th Sem was conducted on 24-08-2023. At beginning of meeting, HOD Dr. Suresh B. Akkole discussed about various technical and non-technical activities being carried out in the ECE department and how these activities are helping the students for the better placements and to face global competition and industrial visits. Prof. Narayan Badiger talked about scheme and subjects of the 4th semester and Prof. Sidramayya Matad informed about CIE results and about 3rd End Semester Exam results. The Parents interacted with faculties to know about the performance, strengths, and weakness, attendance of their ward. The event was hosted by Prof. Narayan A.Badiger.



Valedictory function of Internship on Embedded Systems

Valedictory function of Internship on Embedded Systems for Lateral Entry Students was carried out on 09-06-2023.



Awareness Session on E - Resources

Library & Information Center in association with Dept. Of ECE organized a Awareness Session on E - Resources on 05-06-2023. The resource was Mrs. Nalini Ambli. The event was coordinated by Prof. Megha K



Faculty's Achievements

PhD Award

Prof. Shankargoud Patil has been awarded the **Phd** on his Research in the domain of Signal Processing from VTU

Prof. Sidramayya Matad has been awarded the **Phd** on his Research in the domain of Communication System from VTU

Paper Publications

1. Prof. Shilpa Bhairanatti, Prof.. Anita Patil, Prof. Soumya Halagatti published paper titled "A Survey on Technological Trends to Enhance Spectrum-Efficiency in 6G Communications", in Transactions of the Indian National Academy of Engineering, Springer Nature, Singapore. DOI: 10.1007/SH1403-022-00372-W, 17-10-22.
2. Prof. Narayan A.B., Dr. Sridhar Iyer published a paper titled "Design & Implementation of High Speed and Low Power PLL Using GPKD 45nm Technology" in the Journal of The Institution of Engineers (India): Series B, ISSN: 2250-2106, E-ISSN: 2250-2114, DOI: <https://doi.org/10.1007/s40031-023-00978-w>, indexed in Scopus and UGC-CARE, in January 2024.
3. Prof. Narayan A. Badiger and Dr. Sridhar Iyer presented a paper titled "Nanoscale CMOS Inverter: A Comparative Study On Propagation Delay And Power Dissipation" at the IETE Sponsored 6th National Conference on Emerging Trends in Engineering, Science, and Technology (NCETEST-6), with ISBN: 978-81-962601-3-2, in May 2023.
4. Prof. Narayan A. Badiger and Prof. Sujay Gejji, along with Dr. Sridhar Iyer, presented a paper titled "Power and Delay Analysis of a CMOS Inverter" at the IEEE International Conference on Data Science and Network Security (ICDSNS-2023), under IEEE Bangalore Section, Kalpataru Institute of Technology, Tiptur, Karnataka, with ISBN: 979-8-3503-0159-5/23/\$31.00 ©2023 IEEE, indexed in Scopus, in July 2023.
5. Mr. Pratik Badagavi presented a paper titled "Origami Based Reconfigurable Square Flasher Antenna" at the IEEE 2023 4th International Conference of Emerging Technologies (INCET), JCE, Belagavi, Karnataka, with DOI: 10.1109/INCET57972.2023.10170193, in July 2023.

Student -Faculty Joint Publications

1. Prof. Anita Patil, Shilpa Gudlanur, Kaveri Kenchanagoudar, Kadroli Preeti C, and Trupti Vittal Jakkane published a paper titled "Atmega Controller Based Solar Wireless Electric Vehicle Charging" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 1180-1183, May 2023.
2. Prof. Sanmati Bedakihale, Anupriya Ashtekar, Pooja Chinagundi, Apoorva Khanagoud, and Kusuma Dasappanavar published a paper titled "Child Rescue System in Borewell" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 748-752, May 2023.
3. Prof. Anita Patil, Mr. Pratik Badagavi, Pooja B. Managanvi, Megha Kumachagi, Abhishek Shikalpur, and Manjunath Pawar published a paper titled "Design and Performance Evaluation of Origami Based Incremental Pleat Antenna" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 1816-1823, May 2023.
4. Prof. Shilpa Bhairanatti, Aishwarya Bhairshetti, Jyoti Tallur, Askan Nabuwale, and Arvind Angadi published a paper titled "Detection and Analysis of Plant Diseases Using Image Processing" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 2052-2056, May 2023.
5. Dr. Jagadish S Jakati, Rafathnazneen Nadaf, Vijayalaxmi Halennavar, Tamaloon Sanglikar, and Varun Shedabale published a paper titled "Development of Low Cost and Portable Oxygen Concentrator" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 1070-1074, May 2023.
6. Prof. Soumya H, Arshiya M Patel, Yuvaka S Balaki, Sampada L Lamani, and Srujana Achari published a paper titled "Electricity Generation using Waste Materials" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 1294-1297, May 2023.

7. Dr. Suresh Akkole, Sahana R Kulakarni, Raksha M Itekar, Shreenidhi J Daddi, and Ashwini F Gudumker published a paper titled "IoT Based Aeroponics System" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 929-933, May 2023.
8. Prof. Shankargoud Patil and Preeyatosh Naik published a paper titled "IoT Based Patient Caretaker System" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 2260-2262, May 2023.
9. Prof. Soumya Halagatti, Rahul Patil, Ranjeet Ghatage, Sagar C Goni, and Vineet Sharat Torke published a paper titled "Remote controlled Aquawaste collector with IoT Based water pollution monitoring and tracking system" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 2147-2153, May 2023.
10. Prof. Megha Karabashetti, Deepti Patil, Shreya Yenagi, Kaveri Chavan, and Mahalaxmi Karerudrannavar published a paper titled "SOLAR-BASED E-UNIFORMS FOR SOLDIERS WHO WORK IN EXTREME HIGH OR LOW TEMPERATURE" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 1416-1418, May 2023.
11. Dr. Jagadish Jakati, Akshay N Magundanavar, Shankar Talawar, Prashant Bekkeri, and Rahul Mali published a paper titled "Stamping Machine Automation" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 2330-2334, May 2023.
12. Prof. Sanmati Bedakihale, Prarthana Metri, Priyanka Patil, Rajeshwari Karerudrannavar, and Shruti Shivpuji published a paper titled "Voice Controlled Wheelchair" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 1042-1046, May 2023.
13. Prof. Shankargouda Patil, Vallabh Deshpande, Shweta Naik, Sneha Patil, and Vinayak Kelaginamani presented a paper titled "An Approach to diagnose Heart Arrhythmia disorders using Embedded Machine Learning" at the IETE Sponsored 6th National Conference on Emerging Trends in Engineering, Science, and Technology (NCETEST-6), with ISBN: 978-81-962601-3-2, in May 2023.
14. Prof. Kiran Nandi, Sujeetkumar L P, Adarsh Koravi, Shweta Batagurki, and Shruti Patil presented a paper titled "An Innovative way of Recycling PET Bottles into 3-D Printing Filament" at the IETE Sponsored 6th National Conference on Emerging Trends in Engineering, Science, and Technology (NCETEST-6), with ISBN: 978-81-962601-3-2, in May 2023.
15. Prof. Shilpa Bhairanatti, Rahul Desai, Prasann Malanaik, Vidya Demannavar, and Vishal Jinarali published a paper titled "Development of Smart Advanced Bomb Disposal and Military Spying Robot" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 1489-1495, in May 2023.
16. Prof. Girish P Kadakol, Krishnaji Deshapande, Ritesh Killekar, Mahesh V Jadhav, and Ganesh Ravaloji published a paper titled "Electric Vehicle with Advance Driver Assistance System" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 2062-2067, in May 2023.
17. Prof. Sidramayya Matad, Nivedita Muganur, Naveen Manawadi, Manohar Malagi, and Manjunath Malagi published a paper titled "SOLAR WIRELESS ELECTRIC VEHICLE CHARGING SYSTEM USING ESP32" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 1921-1927, in May 2023.
18. Prof. Anandraddi Naduvinmani, Bhoomika Banajger, Gourav Yelameli, Pallavi Mopagar, and Vidyashree Pujeri published a paper titled "IoT Based Human Hand" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 2135-2140, in May 2023.
19. Prof. Sujay Gejji, Akanksha Ramane, Nihal Ahmed Mulla, Bushra Jamadar, and Ayan Goravankol published a paper titled "Solar Powered Voice Controlled Multipurpose Agriculture Robot using IoT" in the International Journal of Research Publication and Reviews. ISSN 2582-7421, Vol 4, no 5, pp 1667-1674 May 2023




20. Prof. Narayan A. Badiger, Sainand Prabhu, Swati Hakare, Trupti Hawaldar, and Vikas Madanashetti published a paper titled "Intelligent Night Surveillance Using Drone" in the International Journal of Research Publication and Reviews, ISSN 2582-7421, Vol 4, no 5, pp 1903-1910, May 2023.
21. Prof. Anandraddi Naduvinamanni, Pratik V. Patil, Shivraj B. Patil, Sahana S. Mutnal, and Vedika U. Kammar published a paper titled "IoT Based Wireless Sensor Network for Air Pollution" in the TIJER - INTERNATIONAL RESEARCH JOURNAL, ISSN No: 2349-9249, Volume 10 Issue 5, in May 2023.

Students' Achievements

KSCST Sponsored Projects for AY 2022-23

Sl. No.	Project Title	Name Of Guide	Name of the Students	Sanctioned Amount
1.	An Approach to Diagnose Heart Arrhythmia Disorders Using Embedded Machine Learning	Prof. Shankargoud Patil	Mr. Vallabh R. Deshpande Ms. Shweta R. Naik Ms. Sneha S. Patil Mr. Vinayak K	5,000.00
2.	Advanced Anthropomorphic Detection AI Based Robot	Prof. Sujay Gejji	Mr. Sriram P. Baliga Ms. Vishaka M. K Ms. Vedha P. Hongal Mr. Praveen K	5,000.00
3.	Intelligent Night Surveillance Using Drone	Prof. Narayan A. Badiger	Mr. Sainand S. Prabhu Ms. Swati Hakare Ms. Trupti Hawaldar Mr. Vikas M	5,000.00

Academic Excellence

Sem	Rank	Name	%	Topper
III	1	Ms. Vaishnavi Marathe	91.1%	 Ms. Vaishnavi Marathe 91.1%
	2	Ms. Poornima Hanabar	88.6%	
	3	Ms. Aditi M. Timmavagol	87.5%	
	3	Mr. Maruf R. Mujawar	87.5%	
V	1	Ms. Soumya Halalli	83.9%	 Ms. Soumya Halalli 83.9%
	2	Mr. Shivanand Kalagadi	81.7%	
	3	Mr. Sumeet Murgod	80.4%	
	4	Ms. Sushma Kohalli	80.4%	
VII	1	Ms. Yuvaka S. Balaki	92.13	 Yuvaka S Balaki 92.13
	2	Ms. Swati Hakare	88.25	
	3	Mr. Vikas Madanashetti	87.38	

Newsletter Editorial Committee:

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Prof. Sujay Gejji.

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Prof. Narayan Badiger
Mr. Pratik Badagavi, Instructor

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