

Photon

In Pursuit of Innovation...

SGBIT



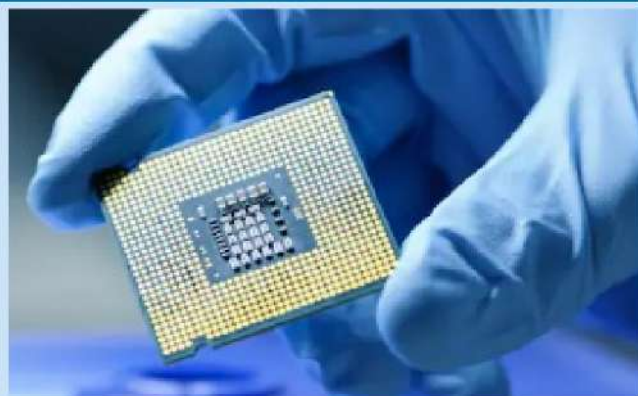
ECE Bi-Annual News Letter

June – Dec 2025

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, there are 10 Faculty with Doctorate & 5 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

The department of Electronics and Communication Engineering strives 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 to societal needs.

PEOs

PEO1: Be successful in their professional career, higher studies and research by providing contextually relevant academic environment and skill development training.

PEO2: Be committed citizens by demonstrating leadership qualities and managerial skills, considering social and professional values.

PEO3: Be independent self learners to keep the pace of technological change and industry expectations that involves interdisciplinary projects.



S. G. Balekundri Institute of Technology

Shivabasav Nagar, Belagavi - 590010 www.sgbt.edu.in



(NBA Accredited & ISO Certified)

Inauguration of One Week AICTE Sponsored Offline ATAL FDP

A One Week AICTE Sponsored Offline ATAL FDP on "Advanced Embedded Systems using IoT" was inaugurated on 15-06-2025. Dr. Shashidhar G. Koolagudi, Professor, NITK, Surathkal were the chief guest for the function. Dr. F. V. Manvi, Chairman, GC, SGBIT; Dr. Ashok M. H., Dean Academics; Dr. Sridhar Iyer, HOD, Dept. of ECE; Dr. B. S. Halakarnimath, HOD, Dept. of CSE; Dr. Shankargoud Patil, HOD, Dept. of CSBS graced the event.



Valedictory Function of One Week AICTE Sponsored Offline ATAL FDP

The One Week AICTE Sponsored Offline ATAL FDP on "Advanced Embedded Systems Using IoT" concluded on 20-06-2025. Dr. Sridhar Iyer, HoD, Dept. of ECE welcomed the gathering. Chief Guest Mrs. Chetana Sarang, CEO, Dattamsh Edtech LLP Belagavi, spoke on the manner in which one can grow by changing their thought process & regular updating with the trending technologies. Dr. B. R. Patagundi, Principal, Dr. F. V. Manvi, Chairman, Governing Council, SGBIT, FDP Coordinator Dr. Suresh Akkole, FDP Co-Coordinator Dr. Veena I. Puranikmath, & other Faculty Members were present during the occasion.



Session on 'Research Grants'



On 21st August, Dr. Rahul Pandya from Indian Institute of Technology Dharwad visited the Department of Electronics and Communication Engg. SGBIT Belagavi and delivered a session on 'Research Grants'. During the session, Dr. Pandya highlighted the importance of obtaining Research

Grants, and detailed the structure of a Research Grant Proposal. Further, Dr. Pandya provided a list of various funding agencies, and discussed the key aspects which must be a part of Grant Proposal. In the second session, Q&A was arranged with Faculty members of all departments wherein, Faculty discussed various aspects related to research.

Webinar on "Roadmap to VLSI Success"



The Department organized a webinar on "Roadmap to VLSI Success" on 22/08/2025, to provide students with insights into the latest trends, career opportunities, and required skillsets in the field of Very Large Scale Integration (VLSI). The session aimed at bridging the gap between academic knowledge and industry requirements, guiding students towards potential career paths in semiconductor design and research. Our alumni Mr. Abhilash Karne delivering an insightful and knowledgeable session.

Think. Tinker. Query - Arduino & DBMS Unplugged



Dept. of ECE, SGBIT organized a 3 Days Online Workshop entitled "Think. Tinker. Query - Arduino & DBMS Unplugged" from 1st to 3rd September 2025. Resource person Mr. Pratik Badagavi detailed on the Arduino Uno Board, IDE, Commands etc. and Interfacing LED, LDR Sensor, IR Sensor. Further students were exposed to commands related to Digital & Analog I/O, Serial Communication, Control Structures along with Interfacing of Ultrasonic Sensor, Soil moisture sensor & Servo motor SG-90. Students were also exposed to online Arduino Circuit Simulators like Tinker cad, Circuit IO, Wokwi etc. On the 3rd day of workshop students were exposed to "Overview of DBMS and SQL". Resource person Prof. Vishwanath Swamy delivered introduction to Database, Database Management System, RDBMS and SQL, Demonstration of SQL commands, creating tables, insert records, updates records and Delete records etc.

Session on Cybersecurity for Industrial Robots

The Dept. of E&C organized a session on "Cybersecurity for Industrial Robots": Safeguarding the Future of Smart Manufacturing on 03 Sept. 2025. The rise of Industry 4.0 and robotic automation has



transformed modern manufacturing, bringing efficiency, precision, and scalability. However, with this transformation comes a new challenge: cybersecurity for industrial robots. Resource person Dr. Vijaylakshmi Jigajinni, BEC, Bagalkot gave insights about Security Measures for industrial robots & highlighted its need in the current scenario.

Session on "Software Unit Testing"

Unittest

Highlights:

- Understanding Python Syntax
- Python Programming
- Software Unit-Testing

Timing: 11.30 AM - 12.30 PM **Date:** 12th Sep 2025 **Venue:** JC Rose Lab

Resource Person:
Mr. Vishwanathswamy B.
Project Test Management / Agile Scrum Master
Assistant Professor, E&C Dept., SGBIT

Dr. Narayan A. B.
Dep. Club Coordinator

Dr. Sridhar Iyer
HOD, ECE Dept.

Dr. B. R. Patangudi
Principal, SGBIT

The dept. conducted a hands-on session on "Software Unit Testing" for 7th sem E&C students on 12-09-2025. With shrinking technology nodes and increasing design complexity, software reliability is just as crucial as hardware reliability. A small bug in a testbench generator or verification utility can cost weeks of engineering effort. Investing in structured unit testing practices for VLSI software and scripts can significantly boost productivity, reduce design cycle time, and ensure smoother tape-outs. Prof. Vishwanathswamy B. was the resource person.

Webinar on Campus to Corporate

S. S. Education Trust's
S. G. Balekundri
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CET Code: E175, COMEDU Code: E175, PUCET Code: 342

Department of Electronics & Comm. Engg.
Under the banner of
WAVECE
Organizes a Webinar on
CAMPUS TO CORPORATE

Resource Person:
Reshma Lad
Senior AEM Developer
Barclays Global Service Centre

Date: 13th Sep 2025
Venue: Charuka (ECE) Seminar Hall

Prof. Kiran Nandi
Event Coordinator

Dr. Sridhar Iyer
HOD, ECE Dept.

Dr. B. R. Patangudi
Principal, SGBIT

A Webinar on Campus to Corporate was organized on 13-09-2025. Our Alumni Ms. Reshma Lad, Senior AEM Developer, Barclays Global Service centre, interacted with 5th Sem students and delivered a insightful session on Corporate Life where the transition from campus life to the corporate world is more than just a change of environment—it's a journey of growth, adaptability, and continuous learning. Prof. Kiran Nandi coordinated the event, HOD Dr. Sridhar Iyer & faculty members were present during the session.

Career Opportunities in ECE Domains

On 20th Sept 2025 Dept. of ECE organized an insightful session on 'Career Opportunities in ECE Domains' by Mr. SANTOSH NAGMOTI, Karmic Semiconductor Pvt. Ltd., Manipal. The session provided the 5th and 7th

semester students with a comprehensive overview of emerging trends and professional pathways in VLSI and Embedded domains. Event was coordinated by Dr. Anita Patil, HOD Dr. Sridhar Iyer & faculty members were present during the session.



Session on 'Diversity and Inclusion in Workplace'

Dept. of ECE organized a session on 'Diversity and Inclusion in Workplace' by Mrs. Candida Halgekar, Technology Architecture Associate Manager at Accenture. Candida shared her expertise and experiences with 5th and 7th semester students on fostering inclusive work environments. The event was a valuable learning opportunity for students and faculty alike, highlighting the importance of embracing diversity in today's professional world. The event was coordinated by Dr. Anita Patil mam, Prof. Vishwanathswamy B., HOD Dr. Sridhar Iyer & faculty members were present during the session.

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T&P Cell of Electronics & Comm. Engg. Dept.
Organizes a Placement Talk on
DIVERSITY AND INCLUSION IN WORKPLACE

Resource Person:
Mrs. Candida Halgekar
Technology Architecture Associate Manager,
Global Inclusion & Diversity, Accenture

Date: 09-10-2025
Time: 12 PM
Venue: Shivakumar Sambargimath Seminar Hall

Dr. Anita Patil
Event Coordinator

Prof. Vishwanathswamy B.
Dept. T&P coordinator

Dr. Sridhar Iyer
HOD, ECE Dept.

Dr. B. R. Patangudi
Principal, SGBIT

Industry Visit to Creintors Automation

An industry visit to Creintors Automation Solutions Private Limited, Belagavi was made on 13/10/2025 by the students of 7th sem. Students got exposed to PLC SCADA, Robotics, RoV, AGV vehicles and industry work culture, professionalism.



Industry Visit to GTTC, Belagavi

5th Semester students from Dept. of ECE visited Govt. Tool Room and Training Centre (GTTC), Belagavi on 14-10-2025 as part of the Industry-visit. The students were exposed to PLC SCADA-Automation, Robotics, IOT, 3D Printing, Power Electronics labs.



Technical talk on Powering the Future: Understanding Lithium-ion batteries

A technical talk on Powering the Future: Understanding Lithium ion batteries was organized on 16-10-2025 by EV club & AETECH of SGBIT EEE DEPARTMENT in association with WAVECE Club of ECE Dept. Resource person Dr. Sushant Mutagekar, Founder, Battery Learning Hub Pvt. Ltd., Belagavi presented on current trends in the field of EV Batteries, their manufacturing etc. Dr. Lalita Darba, EV Cell coordinator, HOD E&CE Dr. Sridhar Iyer and HOD EEE Dr. Supanna S Shirguppe and Dr. B. R. Patagundi, Principal were present during the event.



Freshers Welcome Function

A Fresher's Welcome and Inauguration of WAVECE activities for AY 2025-26 was organized on 31-10-2025. Chief Guest Mr. Mallikarjun Kaladagi and Guest of Honour Mr. Gururaj Ujjinkopp, Head of the Department Dr. Sridhar Iyer, Dean Academics Dr. Ashok Hulagabali & WAVECE Coordinator Dr. Manjula Emmi graced the occasion and motivated young minds.



KAUSHALYA, Mini Project Exhibition - 2025

KAUSHALYA, A Mini Project Exhibition was organized on 28-11-2025 for the 5th Semester students. A total of 34 working models were exhibited by the students during the exhibition. Ms. Vinita Gouranna and Ms. Kirthi Astekar, Sr. Tech Engineers from GTTC Belagavi were the judges for the exhibition. Dr. F V Manvi, Chairman, GC, SGBIT, Dr. B R Patagundi, Principal, Dr. Sridhar Iyer, HOD, Dept. of ECE along with Faculty members were present during the exhibition.



Mock Interview Program - "Crack it Before You Face It!"

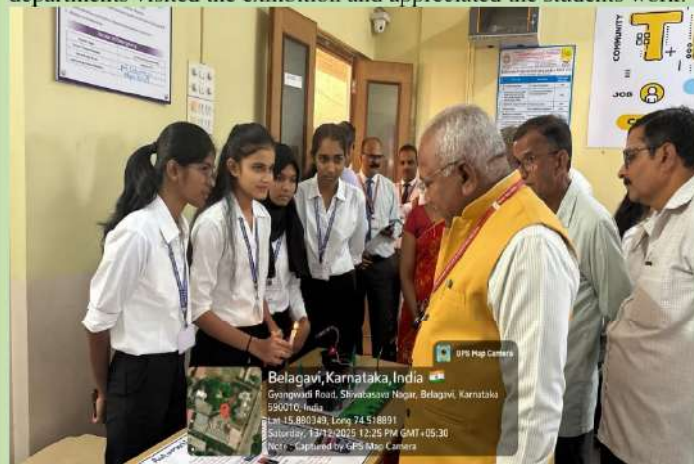
The Department in association with WAVECE, successfully organized a Mock Interview Program entitled "Crack it Before You Face It!" for the 7th Sem students, with the objective of enhancing their employability skills and preparing them for real-time recruitment processes. The mock interview process involved aptitude test, technical and HR interview rounds. The technical interview sessions were conducted by Dr. Shivanand Hiremath, CSE Department Placement Coordinator and Prof. Gururaj Kulkarni, AI & DS Department Placement Coordinator. The HR interview round for shortlisted students was conducted by Mr. Subhas Babaladi, Managing Director, BITS IT Centre, Belagavi and Mrs. Shweta Yadwad, Director and CEO, BITS IT Centre, Belagavi.



PRAKALP 2025

The Department in association with WAVECE, successfully organized PRAKALP 2025 – Mini Project Exhibition for the 3rd semester students on 13-12-2025 at 10:00 AM. The event aimed to provide a platform for students to showcase their mini projects, enhance practical learning and encourage innovation and teamwork among budding engineers. Prof. Mallikarjun Bhagawati and Prof. Renuka T., Assistant Professors from Electrical & Electronics Engineering Department evaluated the students' performance and

gave them suggestions for improvement. Parents & students from other departments visited the exhibition and appreciated the students work.



Parents Meet

The Department organized a Parents Meet for Parents of 3rd Semester students on 13-12-2025. Dept. Academic Coordinator Dr. Shilpa B. briefed over the student's progress in Academics, CIE & gave the overview of events organized for students etc. HOD & other faculty members were present during the event.



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Department of Electronics & Communication Engineering

Organizes
PARENTS MEET
(For 3rd Sem)



Agenda:

- Overview of Academics.
- Continuous Internal Evaluation.
- Overview of Technical and Non-Technical Activities.
- Student Mentorship.
- Others.

Date: 13-12-2025 at 12:00 PM **Venue:** ECE Seminar Hall

Dr. Sidramayya M. (3rd Sem A-Div)
Prof. Anandraddi N. (3rd Sem B-Div)
Class Teachers

Dr. Shilpa B.
Dept. Academic Coordinator

Dr. Sridhar Iyer
HOD, E&C Dept.

Dr. B. R. Patagundi
Principal, SGBIT

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Faculty Achievements

Publications:

1. Dr. Anita Patil published a paper entitled "Power Aware Dynamic Spectrum Assignment for 6G Wireless Systems" in the IETE Journal of Research. DOI: <https://doi.org/10.1080/03772063.2025.2503345>
2. Mr. Kiran S. Nandi published a paper entitled "Greenherb: Analytics and Recognition for Healthcare solutions" at 3rd World Conference on Information Systems for Business Management, Springer nature. DOI: https://doi.org/10.1007/978-981-96-1744-9_33
3. Dr. Anandraddi N. published a paper entitled "A Multi-Stage Deep Learning Model with Fuzzy Logic for Plant Disease Classification in Cotton and Rice" in International Journal of Intelligent Engineering and Systems. DOI: 10.22266/ijies2025.1031.46
4. Dr. Manjula Emmi published a paper entitled "In-Depth Analysis Of ML-Driven Intrusion Detection Systems in Cybersecurity." Int. J. Adv. Sig. Img. Sci. DOI: <https://doi.org/10.29284/hnw3gz92>
5. Dr. Suresh Akkole & Mrs. Ashwini Dhamoji published a paper entitled "An Efficient Video Compression and Encoding Approach for Wireless Communication System" in 2025 Global Conference on Information Technology and Communication Networks

(GITCON), Belagavi, India. DOI: 10.1109/GITCON65266.2025.11378021

6. Dr. Narayan A. B. & our students Dnyaneshwar J, Abhinandan S, Gayatri M, Deeksha M published a paper entitled "Design and Optimization of 8-Bit ALU using 180nm Technology" in International Journal of Creative Research Thoughts. DOI: <https://doi.org/10.56975/ijert.v13i12.299442>
7. Prof. Kiran Nandi published a paper entitled "Greenherb: Analytics and Recognition for Healthcare Solutions" in ISBM: World Conference on Information Systems for Business Management. DOI: https://doi.org/10.1007/978-981-96-1744-9_33

Patents:

1. Dr. Suresh Akkole applied for a patent entitled "Compact and aesthetic design for wearable health sensors". Application No. 459097-001
2. Dr. Suresh Akkole applied for a patent entitled "An Adaptive Noise Reduction Systems for Enhanced audio signal clarity". Application No: 202421024990A.
3. Dr. Veena I. P. & Dr. Sidramayya M. applied for a patent "Smart Security Rover for Object Identification and Remote monitoring Using Edge Processing". Application No. 202541118668
4. Dr. Veena I. P. applied for a patent entitled "Cloud-Assisted Intelligent Forensic Face Sketch Recognition System". Application No. 202541119682
5. Prof. Shridevi Baragi applied for a patent entitled "Predictive System for Assessing Drought Severity in Cultivated Lands". Application No. 202541120547

Academic Excellence

Sem	Rank	Name	%	Topper
III	1	Suraj S. Gidaganti	90.44	 Suraj S. G.
	2	Priyanka S. Honawad	90.22	
	3	Lavanya R. Shivapur	88.22	
V	1	Sahil Patil	88.3	 Sahil Patil
	2	Sadhana Patil	88.1	
	3	Bhagyashree P. Hiremath	86.9	
VII	1	Shubhangi Gurav	87.20	 Shubhangi Gurav
	2	Laxmi S. Koujageri	86	
	3	Vaishnavi A. Marathe	85.40	

Student's Achievements

Projects sponsored by KSCST, Govt. of Karnataka

Sl. No.	Project Reference No.	Project Title	NAME OF THE STUDENTS
1.	49S_BE_2100	SUSTAINABLE DIGITAL ADVERTISING USING SOLAR POWERED E-PAPER DISPLAY	Mr. AJAYAKUMAR C. M. Mr. BASAVARAJ D. BIRADAR Mr. ABHINANDAN B. KADLI Mr. PRADEEP S. HIREMATH
2.	49S_BE_2679	AI POWERED PERSONAL ASSISTANT FOR DEMENTIA PATIENTS	Ms. DANESHWARI SHIRAHATTI Ms. ANJALI JADHAV Ms. KOMAL KUMBHAR Ms. MAHEK PATHAN
3.	49S_BE_2747	VENTILATOR USING RASPBERRY PI WITH APPLICATIONS	Mr. HARSHAL SATAPPA KATAK Mr. AMAAN MULLA Mr. MD. SAMI MEHBOOB K. Mr. NIYAZ M. SURKOD
4.	49S_BE_3652	DEVELOPMENT OF HUMAN FOLLOWING ROBOT FOR ASSISTIVE APPLICATION	Mr. PRANAVA GUGGARI Mr. ATHARV KILLEKAR Mr. SHARADGOUDA PATIL



Miss. Spoorti Swami, our 7th Sem student published a book entitled as "Marigolds and Messes". The book is a fictional story about love, womanhood, independence and self-discovery. Through moments of joy, heartbreak and transformation, it reflects the strength required to grow through life's messes and bloom into one's fullest self.

Our 3rd Year students Ms. Supriya H., Ms. Sanjeevini C., Mr. Vishal A. secured 1st Place in Business Idea Pitching competition organized by ED Cell, SGBIT. The team has been selected to participate in EUREKA, Asia's Largest Business Model Competition at IIT Bombay.



Our 3rd Sem students including Mr. Sanskaar Undale secured 1st place in Ideathon-2025 organized by the AIDS, ME & BSH Departments in association with NAIN 2.0 & IEEE SGBIT.



Our students Mr. Rushikesh Patil, Mr. Manju Dhavali, 5th Sem along with Shruti Padmannavar and Ms. Sampada Chaugule, CSBS dept. won 1st prize at NEXORA – 12 Hours Hackathon organized by JCE, Belagavi. The team has received a cash prize of ₹30,000 Rupees.



Our 7th Sem Students secured 1st Prize with Cash Prize of 5000/- Rs. At the IMPECTUS Hackathon 2025, organized by Sharad Institute of Technology College of Engineering, Ichalkaranji, Kolhapur. The winning team includes Mr. Bhuvan Pachapur, Mr. Nitish Belakud, Mr. Kiran Kate, Mr. Kantesh Munavalli.



Our students Ms. Vishranti More, Ms. Vani Hindalgekar, Ms. Priyanka Honawad, Ms. Supriya Hanagadaka & Mr. Sutej Godigoudar from 5th Sem secured 1st Place & Mr. Naman D., Ms. Amruta P., Ms. Amulya P., Ms. Amulya C., Mr. Rahul A. & Ms. Prerana G. from 5th Sem Secured 2nd Prize in the poster presentation during the 'Hardware Security Bootcamp' organized by Dept. of E & CSE, VTU, Belagavi.



Our 3rd Sem student Mr. Sanskaar Undale along with 5th Sem students of AIDS Mr. Rakesh S, Mr. Nilesh P, Mr. Piyush Kulkarni participated in the North Karnataka's Biggest hackathon "CodeBharat 2025" at IIIT Dharwad. Their team QUAD BITS has won 1st Place with a cash prize of Rs 50,000/- Rupees.



Newsletter Editorial Committee:

Advisory Committee:

Dr. Sridhar Iyer [HOD]

Chief Editor:

Dr. Manjula Emmi

Editorial Members:

Ms. Keerti Duggani, Instructor

Student Members:

Mr. Vishal Ainapure