



BASAVESHWAR ENGINEERING COLLEGE, BAGALKOTE

DEPARTMENT OF ELECTRONICS AND COMPUTER ENGINEERING

CURRENT

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Monthly ECS News Letter



VLSI Domain: Powering the Silicon Behind Modern Technology

Electronics and Computer Engineering is an interdisciplinary field that brings together electronics, computer science, and systems engineering to design and advance modern computing and intelligent electronic systems. It comprises three primary verticals: Core Computer Engineering, **VLSI Domain**, and Embedded Systems Domain. In this edition of the newsletter, the focus is placed on the VLSI Domain, highlighting its significance, advancements, and impact on next-generation semiconductor and computing technologies.

VLSI (Very Large Scale Integration) is a core domain of Electronics and Computer Engineering that focuses on the design and development of integrated circuits by integrating millions to billions of transistors onto a single chip. It plays a critical role in enabling high-performance, low-power, and cost-effective electronic systems used in processors, memory devices, communication systems, and emerging applications such as AI, IoT, and autonomous systems. The VLSI domain encompasses chip architecture, digital and analog design, verification, fabrication technologies, and testing, making it fundamental to advancements in modern semiconductor technology. The VLSI (Very Large Scale Integration) domain offers diverse and high-growth career opportunities at the core of the global semiconductor industry. Professionals in this field are involved in designing, verifying, fabricating, and testing integrated circuits that power modern electronics, including processors, memory chips, communication devices, and AI accelerators.

Career paths in VLSI span roles such as RTL Design Engineer, Physical Design Engineer, Verification Engineer, Analog/Mixed-Signal Designer, Layout Engineer, and Test Engineer, across both product-based companies and semiconductor foundries. With increasing demand for high-performance computing, low-power mobile devices, electric vehicles, and AI-driven systems, the need for skilled VLSI engineers continues to grow rapidly. The domain also offers opportunities in research, advanced chip architecture, and EDA tool development, making it a promising and future-ready career choice for students with strong fundamentals in electronics and digital design.

Professional Development Activities of Faculty Members

Faculty members of the department actively participated in various academic, professional, and evaluative activities during January 2026, contributing to continuous professional development and academic excellence.

1. Workshop Organized

Dr. Chayalakshmi C. L. coordinated a two-day workshop on “Computer Skills and E-Management” for postgraduate Ayurveda students, held from 13th to 14th January 2026.



2. Faculty Recognition

Dr. Chayalakshmi C. L. was awarded a Certificate of Appreciation by NPTEL, IITM Chennai, in recognition of her role as the SWAYAM NPTEL Local Chapter SPOC, for securing an ‘A’ rating for the college during the period July 2025 to December 2025.

3. Faculty as Resource Person for FDP

Dr. Krishnamurthy Bhat presented a talk on "Sensors and Automation" in FDP on "Industrial Automation" organized by Department of Mechanical Engineering, BEC, Bagalkote, from 29th Jan. to 02nd Feb. 2026.

4. Participation in FDP

Smt. Laxmi Ugar successfully participated in a five-day programme on “Foundations of Environment, Health and Safety,” organized by the Department of Biotechnology, BEC, Bagalkote, from 30th December 2025 to 3rd January 2026.



“Stop Ragging, Start Respecting -
Together we stand for dignity.”



5. Participation in Empowerment Programme

Mr. Abhijeet Kamatagi, Mr. Mahesh Mannikatti, and Mr. Praveen Murganur participated in a three-day programme on “Electrical Energy, Power System and Safety Practice,” organized by the Department of Electrical and Electronics Engineering, BEC, Bagalkote, from 5th to 7th January 2026.



6. Faculty as Judge

Dr. Chayalakshmi C. L. was invited to serve as one of the judges for Paper Presentation Contest “Spark Vision -2026” organized by Department of Electrical and Electronics Engineering, Basaveshwar Engineering College, Bagalkote, on 3rd January 2026

Dr. Chayalakshmi C. L. was invited to serve as a judge for the painting competition at the “Sankranti Sambrama” event, organized by the Department of MBA, Basaveshwar Engineering College, Bagalkote, on 13th January 2026



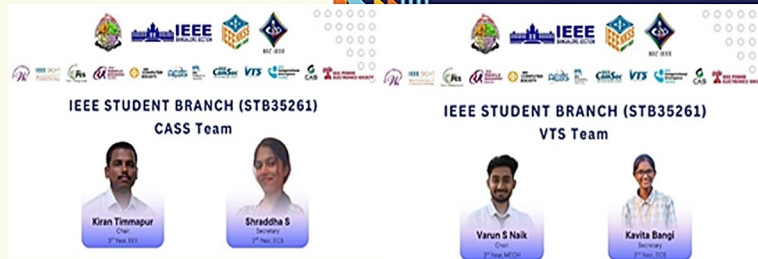
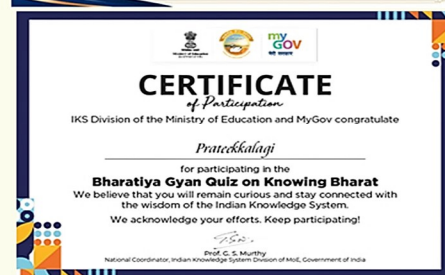
R&D Activities

Faculty members of the Electronics and Computer Engineering Department have submitted two project proposals for funding to the Vision Group on Science and Technology, Government of Karnataka. The details are as follows:

Sl. No.	Proposal Title	Scheme	Coordinators	Total Budget (In Rs.)	Application No.
01	Establishment of an Electro-Mechanical Product Design Center: Design and Development of an Automated Dry/Fly Ash-Based Plate Washer	Karnataka Fund for Infrastructure Strengthening in Science & Technology (K-FIST L1)	PI: Dr. Chayalakshmi C. L. CO-PI: Dr. Krishnamurthy Bhat	20,00,000.00	VRN/001966/25-26
02	Advanced Automation, Robotics and Smart IoT Systems Facility	Karnataka Fund for Infrastructure Strengthening in Science & Technology (K-FIST L1)	PI: Dr. Manjula A. Sutagundar CO-PI: Dr. Ashok V. Sutagundar	20,00,000.00	VRN/002450/25-26

Student Participation & Achievements

- ❖ Miss Shivani Jigalur, a first-semester student of Electronics and Computer Engineering, attended a webinar on “Career Guidance,” organized by Grad-Guru Innovation on 31st December 2025.
- ❖ Miss. Suprita H. M., a second year student, participated in the “Zero Flame Café” competition, organized by the Department of MBA, BEC, Bagalkote, on 13th January 2026.
- ❖ Mr. Prateek Kalagi, 3rd Sem student participated in the Bharatiya Gyan Quiz, a national-level initiative by the Ministry of Education and MyGov, conducted on 12th January on the occasion of Swami Vivekananda Jayanti (National Youth Day)
- ❖ Miss Kavita Bangi of second year, has been elected as Secretary of the IEEE–Vehicular Technology Society, and Miss Shradha Sansiddhanvar of second year, has been elected as Secretary of the IEEE–Circuits and Systems Society in BEC IEEE student branch (STB35261) for the academic year 2025–2026. We extend our heartfelt congratulations and wish them success in fulfilling their responsibilities.



College

Vision

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

Mission

- Develop globally competent professionals for future talent requirements.
- Nurture a culture of research, Innovation and entrepreneurship.
- Promote collaborations, extension and outreach programs for addressing industrial and societal needs.
- Imbibe moral and ethical values.
- Foster ecological and environmental consciousness.

Department

Vision

To be recognized as a Center of Excellence for Electronics and Computer Engineering education and research, developing competent professionals with moral and ethical values

Mission

- Develop professionals with strong fundamentals, technical skills, committed to life-long learning
- Create an environment for interdisciplinary research by collaborating with industries and institutes of higher learning
- Imbibe high moral and ethical values

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