



**CHAITANYA BHARATHI
INSTITUTE OF TECHNOLOGY**

An Autonomous Institute | Affiliated to Osmania University
Kokapet Village, Gandipet Mandal, Hyderabad-500075, www.cbit.ac.in



COMMITTED TO
RESEARCH,
INNOVATION AND
EDUCATION

46
years

From Our Principal

It is with great pride that I introduce ECE Taranga, a reflection of the dedication and achievements of the Electronics and Communication Engineering Department at CBIT. This newsletter highlights the department's continuous efforts in fostering academic excellence, technological advancements, and ethical values among students. I appreciate the collective efforts behind this initiative and look forward to continued support in shaping a future driven by knowledge and progress.



Prof. C. V. NARASIMHULU
M.Tech, Ph.D, S.M.I.E.E.E,
FIE, FIETE, LMISTE
PRINCIPAL

From Our HoD



Dr. K. Vasanth
ME, Ph.D, F. I.E.T.E,
LM.I.S.T.E.

Associate Professor and Head-Department of ECE

ECE Taranga highlights the relentless efforts and achievements of the Electronics and Communication Engineering Department over the past six months. Committed to delivering quality education through modern tools and fostering ethical values, the department aims to shape students into responsible professionals who contribute meaningfully to society. This newsletter serves as a reflection of the skills acquired and the continuous growth of both students and faculty to meet the dynamic demands of the industry.



About CBIT:

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY, established in the Year 1979, esteemed as the Premier Engineering Institute in the States of Telangana and Andhra Pradesh, was promoted by a Group of Visionaries from varied Professions of Engineering, Medical, Legal and Management, with an Objective to facilitate the Best Engineering and Management Education to the Students and contribute towards meeting the need of Skilled and Technically conversant Engineers and Management Professionals, for the Country that embarked on an Economic Growth Plan.

About ECE Department:

The Department is known for its esteemed faculty members who are renowned for their path-breaking contributions in the field of electronics and communications. Ambitious is probably an understatement when it comes to defining our department – we don't believe in stopping short of pure excellence. When it comes to proving their mettle, our students let their practical knowledge and theoretical soundness do the talking.

Vision:

To emerge as a vibrant model of excellence in education, research and innovation in Electronics and Communication Engineering.

Mission:

To impart strong theoretical and practical knowledge of the state of art technologies to meet growing challenges in the industry. To carry out the advanced and need based research in consultation with the renowned research and industrial organizations. To create entrepreneurship environment including innovation, incubation and encourage to patent the work



Research and Innovation

The Department of Electronics and Communication Engineering (ECE) at Chaitanya Bharathi Institute of Technology (CBIT) is actively engaged in cutting-edge research across various domains, fostering an environment of innovation and technological advancement.

Both faculty and students contribute significantly to research in areas such as Signal Processing, Wireless Communication, VLSI Design, Embedded Systems, AI in Communication, and IoT. CBIT promotes research culture through initiatives like Research Day, paper presentations in technical fests, and departmental conferences, providing a platform to showcase pioneering ideas and technical expertise.

Patents Published

The ECE department of CBIT has made significant contributions in this regard, with faculty and students securing multiple patents in 2024, covering areas like autonomous networks, assistive devices, and AI-driven recognition systems.

1.Invention: Automatic Dependent Surveillance Broadcast (ADS-B) Receiver for Air Ground Propagation

Inventors: Varsha Reddy Manda, Dr. Mahesh Chilaka, Dr. Supraja Reddy Ammana, Dr. Bhanuchander Marepally, Dr. Vinodh Kumar Minchula

Published: 26-07-2024

2.Invention: AI-Driven Autonomous Network Management and Optimization for Wireless Networks

Inventors: Chinnalagari Silpa, Dr. A. Vani, Dr. B. Anitha, Dr. P. Anitha, Lecalavithi Rudraksha, Supriya Veerabomma Aruna Sulasa, Dr. B. Mythily Devi, N. V. K. Mahalakshmi

Published: 02-08-2024

3.Invention: Autism Spectrum Assistive Device

Inventors: D. M. S. S. N. Vandan Babu, Dr. S. Siva Priyanka, Dr. Umakanth Choudhury, Dr. Krishna Reddy

Published: 20-09-2024

4.Invention: Raspberry Pi Based Text Emotion Recognition System

Inventors: Dr. S. Siva Priyanka, B. Rahul Raman, B. Karthik, Dr. Umakanth Choudhury

Published: 20-09-2024

Industrial Tie Ups:

CBIT has established **excellent industrial collaborations** through strategic MoUs with leading companies and research organizations. An industrial visit to NRSC was organized by the IETE Student Forum, CBIT, on 4th October 2024. The session began with refreshments and an inauguration, followed by addresses from Sri M.A. Fyze and Sri P. Srinivasulu on “Space and Climate Change.” A total of 199 participants (195 BE ECE 3rd Sem students and 4 ME ECE students) attended, actively engaging in the session. IETE-ISF student coordinators played a key role in organizing the visit.

Name of the Collaborative Institution	Term (Years)	Valid Until	Purpose
Regional Telecom Training Centre, BSNL	5	28 Oct 2029	To offer internships and industrial training
Quinfosystems Pvt. Ltd.	3	4 Oct 2027	To offer internships and industrial training and Placements
Indian Society for VLSI Education (ISVE) Ranchi, Jharkhand, India	5	25 Jul 2029	Skill Development of Students and Research Collaborations of faculty
Advanced and Innovative Research Laboratory (AAIR Lab) Dehradun, India	1	25 Jul 2025	To conduct Conference on Emerging Technologies in ECE



Faculty Achievements in Research and Publications

Book Chapters:

1. Radha S., Nagabushanam, and K. Vasanth contributed chapters on antennas, UAV crop monitoring, CMOS LNAs, and patch antennas in Springer.
2. Supraja Reddy co-authored a chapter on NavIC-based reefer monitoring.

International Journals:

1. Anuradha P. published on high-speed data communications (IEEE Access). Supraja Reddy and team published on IoT-based fault detection (Springer).
2. Siva Priyanka authored two Heliyon articles on energy-efficient multipliers and brain tumor detection.
3. G. Mallikharjuna Rao contributed research on ECDSA.
4. B. Neeraja and N.V. Koteswara Rao co-authored a study on multi-target detection (Springer).

International Conferences:

1. A.D. Sarma presented ML models for ionospheric scintillations (IEEE SPACE).
2. Anuradha P. showcased a Raspberry Pi-based traffic controller.
3. Dr. Vinodh Kumar M. and Supraja Reddy presented on V2V communication and IEEE 802.11ax models (ICCCNT).
4. Siva Priyanka and Dhanalakshmi N presented on smart security devices, gesture recognition, liver disease detection, milk grading, and CKD prediction.

Appreciation Awards:

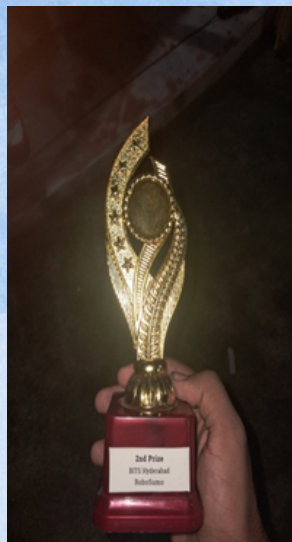
- Dr. Vinodh Kumar M – Top 7 winner at 5G & 6G Hackathon 2024, IIIT Hyderabad (Sep 26–27, 2024).
- Dr. D. Krishna Reddy – Received "Engineer of the Year Award" from Govt. of Telangana & IEI (Sep 15, 2024).
- Dr. M. Bhanu Chandra – Won Tomato Grand Challenge Hackathon by AICTE and Dept. of Consumer Affairs (Jul 24, 2024).



Glimpses of Student Achievements

These achievements highlight the department's commitment to impactful research and innovation.

1. The team Omega Outliers from the ECE Department, led by Rahul Tej Mora (160120735156), won First Prize in Mathedemia24, organized by MATH on 17-05-2024, earning Rs. 25,000.
2. Akshith, Siddartha, Charan, Shruthilaya from the ECE Department comprise the team that secured First Place in the LevUp Ideathon, a 3-level competition, winning a prize pool of Rs. 1 lakh, with support from ACIC-CBIT and Dr. Siva Priyanka.
3. At the Technical Project Expo 'Inventex' held at Osmania University on 22-03-2024, ECE students led by Sreshta Vejju with Siri Paramesh, Pavan Kalyan, and Abhinandan Reddy, won First Prize for their Satellite Communication project.
4. K Giridhar Reddy of 3rd Year ECE1 won the Best Paper Award at the SCEES 2025 IEEE Conference at NIT Bhopal on 18th-19th January 2025.
5. N Thishan Reddy of ECE, through R&I CBIT secured Runner-up in the Robo Sumo competition at BITS Hyderabad.
6. Sreshta of V Sem ECE 2 won First Place in the All-India Amateur Radio Rookie Contest, organized by ARSI on 27th & 28th April 2024.
7. The ECE Department team won Second Prize at "Fempreneur-2024," organized by Cowe Telangana on 27th March, for their "Compact Paddy Dryers" idea, with support from ACIC-CBIT and Dr. K. Vasanth.
8. The ECE Department signed MoUs with Quinfosystems Pvt. Ltd., ISVE Ranchi, Indian Railways Institute of Signal Engineering & Telecommunications Secunderabad, and AAIR Lab Dehradun, promoting collaboration and research.



Events

The Department of Electronics and Communication Engineering at CBIT continues to foster innovation and technical excellence. This edition highlights recent events, workshops, and training sessions that have contributed to student learning and faculty development.

Online Webinar on Career Opportunities in MosChip®

A webinar conducted in collaboration with the Career Development Centre (CDC) focused on opportunities in VLSI and semiconductor industries. Students gained insights into career paths, recruitment processes, and industry expectations.

IoT Impact: Bridging Theory and Reality

An interactive session exploring the applications of IoT in healthcare, smart grids, and automation. The event emphasized real-world implementation and the future scope of IoT technologies.

FDP on Digital & Analog VLSI Design

A week-long Faculty Development Program covered EDA tools, semiconductor advancements, and FPGA applications. The sessions provided hands-on exposure to industry-standard VLSI design tools.

Intersection of Engineering & Railway Traffic Management

This seminar, held on National Engineer's Day, September 15th, explored how engineering principles optimize railway systems. The discussions included traffic flow management, automation, and predictive maintenance.

PCB Design Workshop

A hands-on workshop on PCB layout, fabrication, and testing. Students learned about industry standards, circuit board design, and real-world implementation.

MATLAB & Simulink Hardware Integration Training

A practical session on integrating MATLAB with Arduino and other hardware platforms. Participants explored cost-effective solutions for hardware simulation and control.

HAM Radio Demonstration

An engaging event introducing amateur radio communication, licensing procedures, and emergency applications. Students interacted with radio equipment and experienced live communication setups.

Stela 5.0 Workshop

A session focused on AI-driven learning platforms, product design strategies, and digital evaluation techniques. Participants explored Flutter-based smart learning applications.

Synapse 2024

The ECE department's student clubs—IEEE, IETE, R&I, and HAM Radio Club—played a crucial role in Sudhee 2024 by organizing diverse technical and competitive events. IETE CBIT conducted Web Blitz, Circuit Safari, Clash of Minds, Knox 'O' Box, Quiz Masters, and an Escape Room challenge, fostering problem-solving and technical skills. The R&I Club led the Robovanza series, featuring Maze Solver, Drone Racing, Line Follower Sumo, Robo Rover, Robo Soccer, Robo Sumo, and Robo Wars, engaging participants in robotics competitions. The HAM Radio Club (HRC) emphasized Morse code awareness through Morse Symphony, Morse Mystique, Morse Mania, Morse Hunt, and a FOX HUNT game demonstration. Meanwhile, the IEEE CBIT Student Branch contributed through research publications in journals like IEEE Access, Springer, Heliyon, and Inderscience, alongside hosting Electrocute, Bytebout, Roboscape, and technical webinars. Collectively, these efforts showcased the department's commitment to innovation, research, and technical excellence, making Sudhee 2024 a resounding success.



Placements and Internships

The Department of Electronics and Communication Engineering (ECE) at Chaitanya Bharathi Institute of Technology (CBIT) has an excellent track record in placements and internship opportunities. With strong industry collaborations and a dedicated placement cell, the department ensures that students are well-equipped to secure positions in top companies and research organizations.

Internship Programs Internships are an integral part of the curriculum at CBIT, providing students with hands-on experience and exposure to real-world applications. The ECE department encourages students to undertake internships in various industries, research labs, and government organizations. Many students have successfully completed internships at ISRO, Silicon Labs, Accenture, PWC Acceleration Centre and also research internships at many IIT's such as Hyderabad, Indore, Chennai and many more.

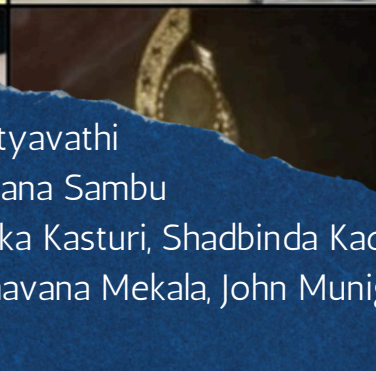
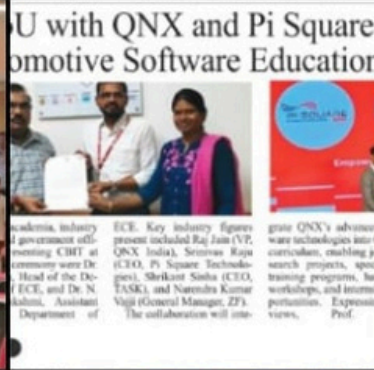
Skill Development and Training To ensure that students are industry-ready, the department organizes various training programs, workshops, and hackathons. These initiatives focus on key skills such as:

- Programming and Software Development (Python, C++, Java, Embedded C)
- Hardware Design and Prototyping (FPGA, PCB Design, IoT Applications)
- Machine Learning and AI in ECE
- Communication Networks and 5G Technologies
- Soft Skills and Interview Preparation

Campus Placements The placement cell at CBIT plays a vital role in bridging the gap between academia and industry. Every year, a significant number of students from the ECE department secure placements in leading multinational companies, startups, and research organizations. The department has consistently achieved high placement rates, with students being recruited by reputed companies such as Silicon Labs, CtrlS_Cloud4C, Accenture, Capgemini and many more.

1. Highest Package : ₹ 11 Lakhs per annum.
2. Placement Percentage : 42.93 %
3. Median Package : ₹ 6 Lakhs per annum.
4. Average Package : ₹ 5.6 Lakhs per annum.

The Capgemini logo, featuring the word "Capgemini" in a blue, stylized font, followed by a blue circular icon containing a white abstract shape.The Accenture logo, featuring a purple chevron symbol above the word "accenture" in a bold, black, sans-serif font.



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