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News Taranga

ECE Newsletter

Vol 1 | Issue 2

CHAITANYA BHARATHI INSTITUTE OF TECHNOLOGY

An Autonomous Institute I Affiliated to Osmania University

Kokapet Village, Gandipet Mandal, Hyderabad, Telangana-500075, www.cbit.ac.in

COMMITTED TO RESEARCH, INNOVATION AND EDUCATION 46 years

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

From Our Principal

It is a great pleasure to witness the release of the second edition of ECE Taranga, a platform that captures the continuous academic, technical, and research excellence of the Department of Electronics and Communication Engineering at CBIT. The department has made admirable effort in fostering student-centered learning, innovation, and professional growth. I am glad to see our students and faculty working collaboratively to encourage inquiry,creativity,and leadership. I congratulate the editorial team for their efforts in publishing and wish the department continued success in its pursuit of excellence and service to society through engineering education.

Dr. K. Vasanth ME, Ph.D, F. I.E.T.E, LM.I.S.T.E.
Associate Professor and HOD of ECE

From Our HoD

It gives me immense pride to present the second edition of ECE Taranga—a representation of continued growth, achievements, and aspirations of the Department of Electronics and Communication Engineering at CBIT. Our students have consistently demonstrated their technical competence, creativity, and ethical responsibility. As a department, we continue to focus on nurturing talent and creating an environment that bridges theory with practical application. I extend my heartfelt appreciation to the editorial team for their dedication in recording our progress and to all students and faculty whose contributions make ECE Taranga a symbol of our shared success and vision for the future.

ECE TARANGA
WE COMMUNICATE

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 Page

Patents published

The ECE department of CBIT has made significant contributions in this regard, with faculty and students securing multiple patents in 2025, covering areas like autonomous networks, assistive devices, and AI-driven recognition systems .
Here's the same information rewritten into 5 clear points with inventors' names included:

1. **Innovative VLSI Architectures and Methods for Advanced Applications in the Digital Era** – Invented by A.Vani, Mr.Pattalunaidu Tamarana, Mr.Kethepalli Mallikarjuna, Vinay Kumar Yadav, Diganta Das, Mrs. Chilukoti Yamini, Mr. Kotta Kiran, Krutideepa Bhol, B. Abdul Raheem, Ms. V. Pavithra
File No: 202541017618 (27/02/2025) ,Type: Design , Status: Published on 14/03/2025

2. **AI-based Antenna for Weather Forecast** – Invented by Dr. Panyam Narahari Sastry, Dr.Vivek Singh Kushwah, Dr. Maddala Lakshmi Narasimha Charyulu, Dr. Male Ramana Reddy, Mr. Alenoor Krishna Kumar
. File No: 6414759 (05/05/2025) , Type: Design ,Status: Granted on 13/05/2025

3. **AI and Solar Powered Antenna for 5G** – Invented by Vivek Singh Kushwah, Maddala Lakshmi Narasimha Charyulu, Dr. Male Ramana Reddy, Panyam Narahari Sastry, Vasanth Kishore Babu
File No: 6444415 (14/05/2025) , Type: Design ,Status: Granted on 21/05/2025

4. **Multi-Functional Borewell Rescue Framework for Improving Safety with a Stable and Efficient Lifting System** – Invented by Sreena A ,Neeraja B, Supraja Reddy A,Jahnavi Y , Udith Chandra Prasad P, Vasanth K. File No: 202541047374 (06/05/2025) ,Type: Design , Status: Published on 30/05/2025

5. **Tongue-Based Operating System Using IoT for Physically Disabled People** – Invented by K.Vasanth, P Sai Charan, Y. ManiPriya,T. Sankshay Reddy, S.Radha, S. Anuradha, Vivek Singh Kushwah File No: 202541043926 (06/05/2025) ,Type: Utility ,Status: Published on 30/05/2025

Patent for Borewell Rescue Framework

INTELLECTUAL PROPERTY INDIA

Industrial visits:

S.No	Name of the Industry	Type of the Industry	Organising committee/ club-Academic Year	Faculty Coordinators
1	VSSC-KERALA	Government Research Lab	IETE- (14-19 July,2025)	Dr. B.Neeraja Sri.E Chandrasekhar Sri.Surender
2	BITS, Hyderabad	Private	IEEE (1May,2025)	Dr.Khaleelu Rahman
3	BSNL-RTCC, Hyderabad	Government Research Lab	IEEE 27,29 &30 March,2025	Dr T. Aravinda Babu Dr.Khaleelu Rahman Dr.G.Mallikharjuna Rao

Industrial vist to VSSC Kerala

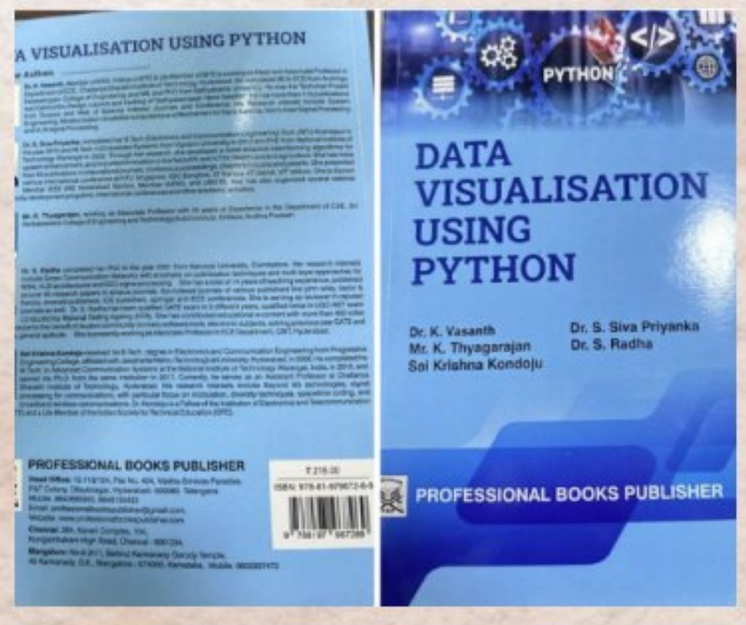
Industrial vist to RTTC,Hyderabad-BSNL

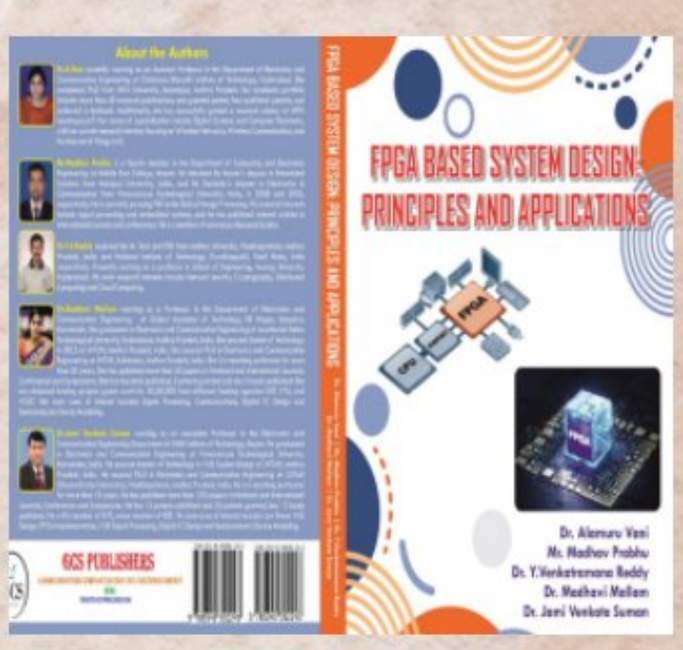
Industrial vist to BITS, Hyderabad

Academic Research

Books	Book Chapters	International Journals	International Conference	National Conference	Total
3	5	18	20	1	47

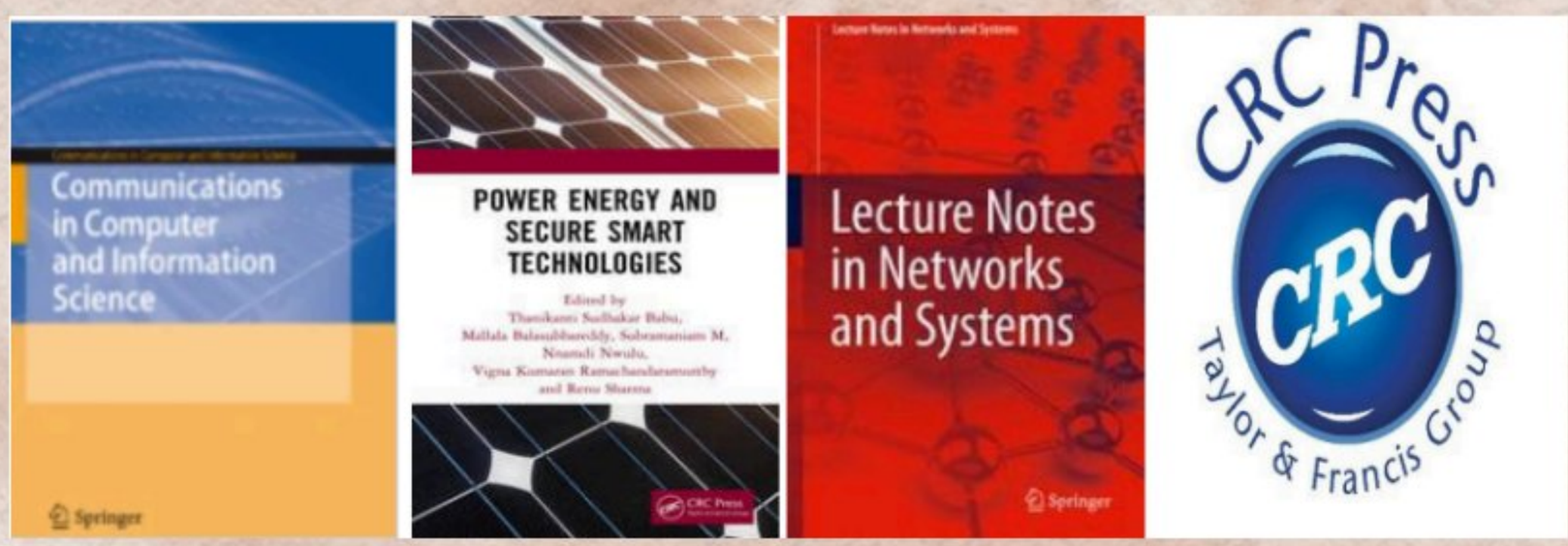
Books





- Faculty authored and co-authored three professional and academic books published by reputed publishers such as Professional Books Publisher, GCS Publishers, and LamBart Publishing.
- Topics covered include Python-based Data Visualization, FPGA-based System Design, and High-Resolution ADPLL Architectures, demonstrating expertise in both software and hardware design domains.

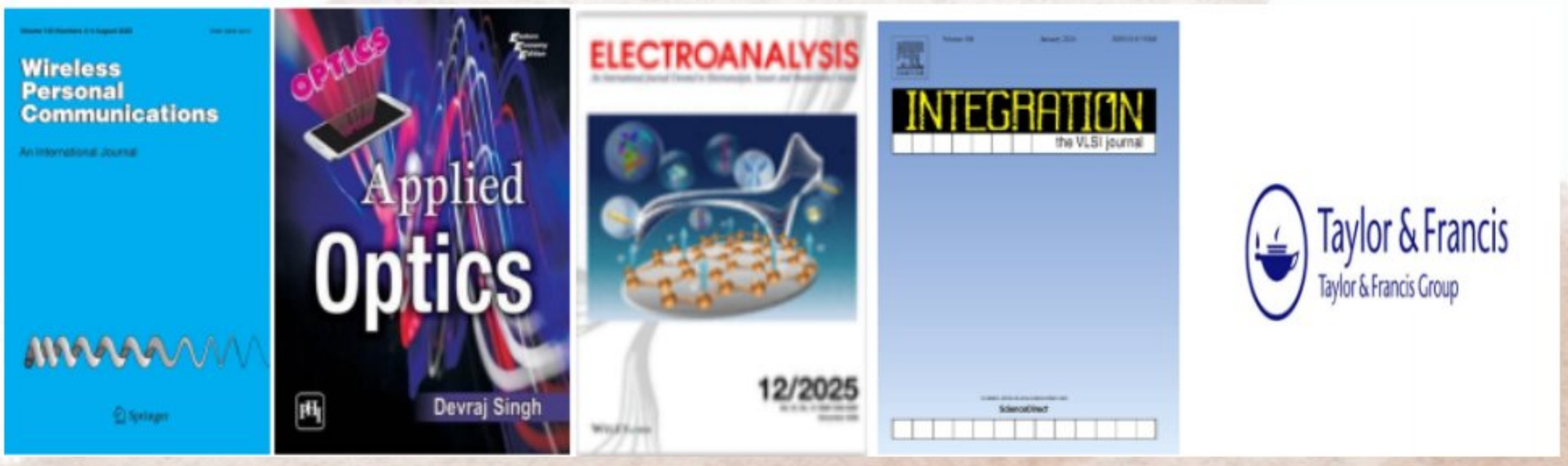
Book Chapters



- Faculty contributed chapters in Springer and CRC Press volumes, addressing emerging areas such as:

o Hybrid electric vehicles and automation,
o mmWave and V2I networks,
o Cloud-based intrusion detection,
o Low-power SRAM design,
o Renewable energy integration through IoT and smart technologies.

International Journal Publications



- Publications appeared in high-impact, Scopus and SCIE-indexed journals (Q1–Q3), including Wireless Personal Communications, Applied Optics, ElectroAnalysis, Plasmonics, and Integration: The VLSI Journal.
- The research covers:

o 5G/THz antenna design,
o Graphene-silicon-based nano-plasmonic structures,
o Physical layer security and deep learning,
o FPGA accelerators for hyperspectral image processing, and
o Machine learning in healthcare prediction systems.

The department demonstrated consistent performance in publishing in reputed international platforms (Springer, Wiley, Taylor & Francis, Optica, Elsevier).

International Conferences

- Papers were presented in IEEE and Springer international conferences held in India and abroad (including IIT Mandi, NIT Jalandhar, VIT Bhopal, AMITY University, GR Foundation Bangkok, etc.).
- Research areas include:

o IoT-based healthcare and environmental monitoring,
o Smart antennas and communication systems,
o Deep learning for medical image analysis,
o Federated learning for wireless resource allocation, and
o Robotics and FPGA-based AI implementations.

These participations enhanced international visibility and networking with global research communities.

National Conference

- Presented at CBIT, Hyderabad under the event “Shruthi (Innovate, Integrate, Inspire)”, showcasing a 16-bit Arithmetic Logic Unit (ALU) design.
- The project demonstrated practical hardware implementation and innovation in processor design.

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, DSP-DRDO ,Trinnovate Synergy Technologies Pvt. Ltd. Accenture, PhoQtek Labs, Astra Microwave Products Ltd., research internships at many IIT's such as Hyderabad, Indore, Chennai and many more. Highest Package: ₹ 24000 per month/6months 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

PLACEMENTS:

The Placement Cell at CBIT continues to be a cornerstone in connecting students with leading organizations and career opportunities. It actively collaborates with top recruiters, conducts training sessions, and prepares students through mock interviews, aptitude workshops, and personality development programs to ensure they are industry-ready.

Each year, the Electronics and Communication Engineering (ECE) department records impressive placement outcomes, with students securing roles in renowned multinational corporations, startups, and core engineering firms. The department takes pride in producing graduates who are not only technically proficient but also possess the adaptability and innovation required by today's dynamic industry.

Some of the prominent recruiters include Infosys, Medha Servo Drives Pvt. Ltd., Deesha Enterprises, Constelli, and several emerging tech ventures that value the strong analytical and problem-solving skills of CBIT students.

- Highest Package: ₹8 Lakhs per annum
- Median Package: ₹6 Lakhs per annum
- Average Package: ₹5 Lakhs per annum

The continuous growth in placement statistics reflects the department's commitment to academic excellence, hands-on learning, and professional grooming. With the integration of modern technologies, industry collaborations, and skill-development programs, CBIT ensures its students remain at the forefront of employability and innovation.

MOSCHIP

Infosys

MEDHA

Medha Servo Drives Private Limited

Alpha-Numero

STUDENT ACHIEVEMENTS

- K Giridhar Reddy, of 3rd year ECE1 has won best paper award in the SCEECS 2025 IEEE conference held at NIT, Bhopal on 18th and 19th January 2025 Best Paper and poster award National Tech Symposium at ECE dept, University college of Engineering, Osmania University by K Giridhar Reddy of 3rd year ECE-1 on 21st march 2025

- Best Paper Award at VANSH 2025, Paper presentation competition at Vignan Institute of Technology and Science by K Giridhar Reddy, 160122735040 of 3rd year ECE-1 on 20th march 2025

- 2nd Prize at NAFED08 conference by ISRO, VSSC at IIT Hyderabad by K Giridhar Reddy 160122735040 and V Bhavya Sri 161022735301 of 3rd year ECE 1 on February 1st 2025

- Nptel STAR Felicitation event at IIT Madras by K Giridhar Reddy of 3rd year ECE-1 on February 9th, 2025

aakruthi 2025
...Upgrade Unleash Uplift

CERTIFICATE
OF APPRECIATION

This certificate is awarded to

K. Giridhar Reddy

for achieving outstanding performance and securing 1st position in the PRASTHUTHI (Paper Presentation) at the National Technical Symposium Aakruthi 2024, held on 21st March 2025 organized by the Department of Eelectronics and Communication Engineering, University College of Engineering (A), Osmania University, Hyderabad - 07 for exceptional commitment, dedication, and contributions to this event, this certificate is awarded as the mark of honour and gratitute for outstanding achievement.

Dr. M Shyamsunder
Faculty Advisor
AAakruthi 2025

Prof. D. Ramakrishna
Head of Department
ECE, UCE, OU

EVENTS

1. STTP: "ICT Tools for Smart Educators"

It is a National level program which went on from 27 to 31 Jan 2025. Focused on modern ICT tools for educators, enhancing teaching methodology using digital platforms . It is conducted under NITTTR Chandigarh with 47 participants.

2. FDP: Utility of PolaRx5S Scintillation Monitoring Receiver for Advanced Research

It is a National level program which went on from 14 to 15 Feb 2025. Covered advanced GNSS research using PolaRx5S, including monitoring ionospheric scintillations. It is attended by 32 participants + 4 research scholars and funded under SERB DST Project.

3. STTP: Applications of IoT – Project Based

It is a National level program which went on from 10 to14 Feb 2025. Focused on practical IoT applications with project-based learning for research and industry relevance. It is Conducted by NITTTR Chandigarh, with 43 faculty participants.

4. Technical Event: Career Opportunities in Modern VLSI

It is a Institute level program which happened on 21 Feb 2025 . It is a webinar on VLSI career pathways and skills, guided by Prof. L. Samrat Sabat (HCU).200 participants attended, focused on VLSI technologies.

5. Technical Event: Aavishkar Hardware & Software Editions

It is a National level program which went on from 04 to 05 Mar 2025. Competitions showcasing embedded hardware and software innovations, judged by industry experts.20–25 participants in each edition and also included external expert sessions (~3 hours each).

EVENTS

6. Technical Event: Smash Karts, Game Arcade, Quiz Masters 2.0, Shark Showdown, Escape Room

It is a National level program which went on from 04 to 05 Mar 2025. Multi-event technical festival encouraging innovation, problem-solving, and coding challenges.Participant range: 40–250; events guided by industry professionals and expert judges.

7. FDP: IoT and Data Analysis of Sensor Data

It is a National level program which went on from 03 to 07 Mar 2025. Covered sensor data acquisition, IoT integration, and data analytics techniques. Organized by NITTTR Chandigarh; 37 participants trained.

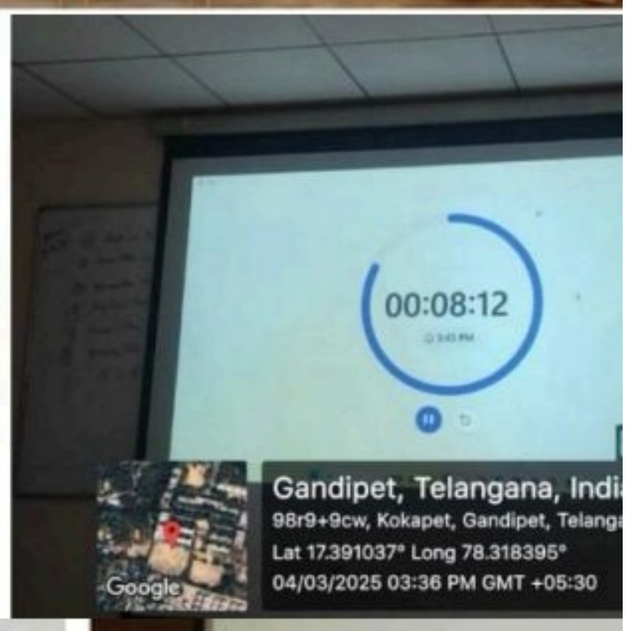
8. STC: AI and Cloud-Based Tools for Research

It is a National level program which went on from 24 to 28 Mar 2025. Focused on AI and cloud technologies for research applications, including practical implementations.Conducted by NITTTR Chandigarh; 45 participants benefited.

9. Technical Workshop: VLSI Workshop 2.0 – Circuit Simulation using PSpice

It is a institute level program which happened 25 Mar 2025. Hands-on training on analog circuit simulation using PSpice software for engineering students.Led by Dr. Vasanth Kishore; 50 participants attended.

10. Release of department news letter" News Taranga" vol 1 ,issue 1 by honourable Principal Dr.C.V Narasimhulu. The news letter is bi annual. Coordinated by smt.satyavathi and student team



engineering colleges across Telangana and beyond, featur- pressed her delight at the over- whelming participation, athletics, making it a vibrant hub of talent and competition.

Guest Lecture on Career Opportunities in Modern VLSI at CBIT

DECCAN NEWS SERVICE
HYDERABAD

The IETE Student Forum (IETE-ISF) at Chaitanya Bharathi Institute of Technology (CBIT) organized an insightful guest lecture on "Career Opportunities in Modern VLSI" by Prof. Samrat L. Sabat from Hyderabad Central University (HCU). The session provided students with valuable insights into the evolving VLSI industry, in- Vasanth, Head of the ECE Department, introduced the session. Prof. Sabat detailed enthusiastic response from students, fostering engaging discussions. The event, coor-

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