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Channasandra, Dr. Vishnuvardhan Road, Bengaluru - 560 098

Ph: (080) 28611880, 28611881 URL: www.rnsit.ac.in



Department of ECE and EEE

Report on CCUBE -2025

Chapter/Organizer	Department of ECE & EEE
Event Name	CCUBE 2025
Event Date	October 24 ,25 2025
Number of Participants	32
Place	Dr. R. N. Shetty Mini Auditorium
Number of Hours of Event	2 Days
Number of Faculty Member Involved	80
Photo/Video of the Session	Yes
Social Media Post	Yes

Objective:

This report aims to document the proceedings and key outcomes of **4th IEEE International Conference on Circuits, Controls and Communication CCUBE 2025** organized by the Department of ECE and EEE, RNSIT.

The CCUBE 2025 was organized to bring together researchers, academicians, industry professionals, and students from diverse fields to share their knowledge, research findings, and innovative ideas. The primary objective is to provide a global research platform to encourage interdisciplinary collaboration.

Conference Overview:

The conference received 167 submissions, all of which were evaluated

through a thorough peer review process out of which 76 papers were accepted, and 32 were selected for presentation.

Day 1 (October 24, 2025):

The event began with an inaugural session at 9:30 AM in the Mini Auditorium. The inauguration was initiated by lighting the lamp. The keynote address was delivered by Dr. Jayaram Sukumar, Senior Director, Qualcomm.

The Topic of Keynote was “Systems Engineering in the AI/ML Era”

Electrical system performance and its challenges such as battery capacity, power consumption, and optimization were the highlights of the talk. Also Concepts of engineering systems and mathematics and optimization in between circuits, controls and systems were stressed. The importance of well-integrated components within an overall architecture, well abstracted firmware based approach and increasing system performance while balancing system cost were emphasized.

Day 1 Technical sessions

Two sessions were conducted in parallel. Session 1 was on Computer science and AI applications. Session 2 was on Sensors and IOT. In session 1, 5 papers were presented and 4 papers were presented in session 2.

Day 1 Afternoon session

The day 1 afternoon session started with a plenary talk by Dr T Srinivas, Professor, IISc. The title of the talk was “Quantum Information Technology using Photonics”. Dr Srinivas gave a very good fundamental understanding of Quantum technology covering aspects from Qubit to Quantum entanglement. Differences between classical and quantum systems and Principle of superposition and probabilistic nature of quantum states was explained.

The plenary session was followed by three parallel sessions:

- Session 3 - VLSI and Antenna
- Session 4 - Image and Signal Processing

- Session 5 - Special / Niche Areas

Day 2 (October 25, 2025)

Day 2 started with a plenary talk by Dr. Praveen Ramamurthy, Professor, Materials Engineering Department, IISc. The title of the talk is “Molecules to Devices”. He explained about how molecular modeling can be a basis for sensing applications. Also he explained about various sensors like electrochemical sensors, optical sensors, Nitrate sensors and urea sensors.

Day 2 Plenary talk was followed by 2 parallel sessions.

Session 6: Power electronics and controls

Session 7: Robotics

Day 2 Afternoon session

Afternoon session started with panel discussion. Five experts in various domains related to conference areas.

The title of the panel discussion was ‘Intelligence at the Edge: “Reimagining circuits and systems for AI era”’. Panel discussion experts were

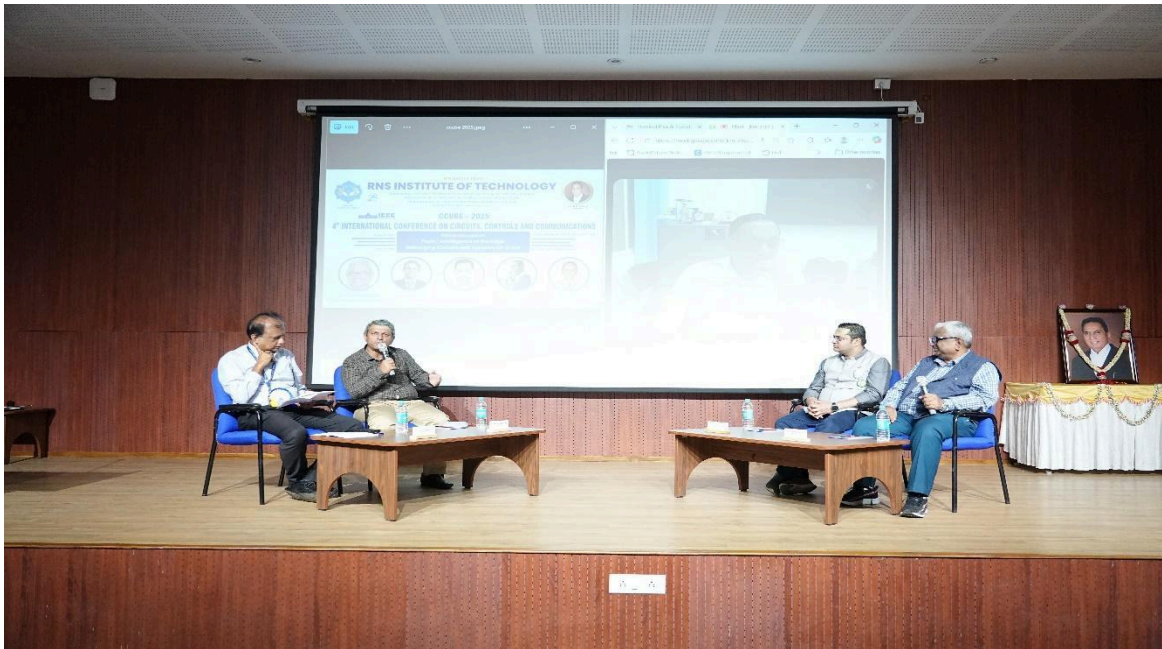
1. Prof. T V Prabhakar, Professor, IISc
2. Shri Chandrashekar B U, Senior Architect, Synopsys
3. Shri Vibhav Kale, Director, SIMA.ai
4. Mr. Jayesh Tanwani , SoC , Design Engineering Manager

The moderator was Shri. Manju Prakash, Professor of Practice, RNSIT.

The panel members discussed on EDGE concepts, devices , VLSI design tool trends and on security, safety and sustainability.

Photos:







Social Media Link

<https://ccube25.com/>