ABOUT THE INSTITUTION

Nestled at the foothills of the Western Ghats, located in a sprawling 52-acre campus in Kovaipudur, Coimbatore, Sri Krishna College of Technology (SKCT) is a vibrant institute of higher education established in 1985 promoted by Sri Krishna Institutions. An extraordinary freedom of opportunity to explore, to collaborate and to challenge oneself is the hallmark of the Institute. Being an autonomous institute, affiliated to Anna University, Chennai, and approved by AICTE, New Delhi, SKCT lays strong emphasis on collaborative research and stands apart from other institutes by its participatory work culture, student care programmes and high industry interaction. In a span of 38 years, it has emerged as one of the premier engineering colleges for learning, discovery and innovation due to the dynamic leadership of the Chairperson and Managing Trustee Smt S Malarvizhi. Being an acclaimed educationalist, she continues to contribute profusely for the glory and happiness of advancing generations. The college is accredited with A Grade by NAAC and eligible undergraduate programs are accredited by the National Board of Accreditation (NBA), New Delhi. The college offers 11 undergraduate programmes and 6 postgraduate programmes in engineering, technology, and Management Studies.

CHIEF PATRON

Smt. S.Malarvizhi
Chairperson & Managing Trustee,
Sri Krishna Institutions, Coimbatore.

Sri.K.Adithya
Trustee,
Sri Krishna Institutions, Coimbatore.

PATRONS

Dr.K.Sundararaman
Chief Executive Officer
Sri Krishna Institutions, Coimbatore.

Dr. M.G.Sumithra, M.E, Ph.D.
Principal,
Sri Krishna College of Technology, Coimbatore.

CONVENER

Dr.K.Muthulakshmi, M.E, Ph.D.
Professor and Head,
Department of Electronics and Communication Engineering,
Sri Krishna College of Technology, Coimbatore.

FACULTY CO-ORDINATORS

Dr.K. Shanthi, M.E.,Ph.D

Associatet Professor
Contact No: 9047917688
E-Mail ID: k.shanthi@skct.edu.in

Dr.S. Prema, M.E, Ph.D

Assistant Professor
Contact No: 9486133885
E-Mail ID: prema.s@skct.edu.in

Department of Electronics and Communication Engineering,
Sri Krishna College of Technology, Coimbatore.

ANRF SPONSORED FIVE DAYS SEMINAR
ON

"Hybrid Quantum-Classical Computing"

17.02.2025 to 21.02.2025

Organized by

Department of Electronics and Communication Engineering

(NBA Accredited)

SRI KRISHNA COLLEGE OF TECHNOLOGY

(An Autonomous Institution, Affiliatedto Anna University, Chennai)
Kovaipudur, Coimbatore – 641 042
Tamil Nadu, India
www.skct.edu.in
Ph.No: 0422 29845670

ABOUT THE DEPARTMENT(ECE)

Department of Electronics and Communication Engineering was established in the year 1985, has grown higher, and is considered as one of the well-equipped departments across the state in terms of infrastructure, Curriculum and Content quality, and quality of teaching faculty. While building a solid foundation of the fundamentals, the students are also exposed to emerging trends in the industry and are molded to be quality professionals of the future. Department of Electronics and Communications Engineering aims at providing T-shaped learning through stream-based electives where students are provided with the choice of getting specialized in any one of the thrust areas like VLSI, Embedded Systems, Communication Engineering, Networks, Image and video processing. The department houses the Electronics Sector Skills Council of India sponsored Centre of Excellence in VLSI and Embedded Systems to develop skilled manpower under the scheme of Skill India and Start-up India to meet the vision of the country, 'Make in India'. Department of Electronics and Communication Engineering has a sanctioned intake of 180 by AICTE and offers UG,PG and PHD Programmes in ECE. Department of ECE is accredited by NBA and permanently affiliated to Anna University, Chennai.

VISION

To produce technical manpower of global standards in Electronics and Communication Engineering with capabilities of adapting to new challenges to address the societal needs.

MISSION

1. Equipping faculty members with knowledge in cutting-edge technologies, through various programs
2. Imparting quality education to meet the requirements of all stakeholders with the help of well-qualified and experienced faculty resources.
3. Nurturing competent professionals through extra and co-curricular activities.
4. To promote research and development activities by setting up new research facilities and industrial interaction.
5. Accomplishing the technological needs of the society

OBJECTIVE OF THE PROGRAM

The objective of **Hybrid Quantum-Classical Computing** is to harness the strengths of both quantum and classical computing to solve complex problems more efficiently. By leveraging quantum phenomena like superposition and entanglement alongside the scalability and reliability of classical systems, hybrid computing aims to optimize task allocation between the two paradigms. This approach addresses current limitations of quantum systems, such as noise and qubit coherence, by offloading specific tasks to classical processors. It enables the development of advanced algorithms for applications in optimization, cryptography, machine learning, and materials science. Hybrid systems provide a practical framework for integrating quantum technologies into existing infrastructures, facilitating early adoption and real-world implementation. Additionally, they accelerate research in quantum algorithms and hardware, supporting innovations in system architecture and scalability. By blending the unique capabilities of quantum and classical computing, hybrid systems drive progress in computational science and open new frontiers in problem-solving efficiency.

COURSE CONTENT

- ✓ **Introduction to Hybrid Quantum-Classical Systems**
- ✓ **Quantum-Classical Algorithms**
- ✓ **Quantum-Classical Systems in Cryptography**
- ✓ **Quantum Chemistry Using Hybrid Computing**
- ✓ **Quantum Networking and Communication**
- ✓ **Cloud-Based Hybrid Quantum Computing Platforms**
- ✓ **Quantum Cryptography and Quantum Key Distribution**
- ✓ **Development Tools and Frameworks**
- ✓ **Applications of Hybrid Quantum-Classical Computing**
- ✓ **Future Trends in Hybrid Quantum Computing**
- ✓ **Quantum Computing Core Concepts**
- ✓ **Ethical and Security Implications of Hybrid Quantum Systems**

Eminent speakers from reputed institutions and industries will handle the sessions.

GUIDELINES

- **REGISTRATION DETAILS**
- Participants are requested to fill online registration form.
- Registration fee for Industry and Engineers from R&D Labs /Faculties from Academic Institution / Research Scholars / PG students: **Rs.300/-**
- Eligible participants will be selected based on **First Come First Serve (FCFS)** basis and selected participants will be intimated via **E-mail**.
- On the last day of the program an assessment test will be conducted for all registered participants.
- Those who have an attendance of **minimum 80% and score more than 60% in the test will be issued a certificate**.

DATES TO REMEMBER

- Last date for receiving applications is 14.02.2025
- Intimation of selection through E-mail by 15.02.2025

REGISTRATION:

Registration has to be done only through Google form link:
https://forms.gle/fB2ZNFVaFMbM7Qr87