



# 5th International Conference on IoT Based Control Networks and Intelligent Systems

**17-18, December 2024**

**Website: <https://icicnis.com/>**

**Organized by**

**T. John Institute of Technology,  
Bangalore, India.**

**Technical Co-Sponsor**



**IEEE**



**IEEE  
SMC**  
Systems, Man, and Cybernetics Society

# About the College

**T. John Institute of Technology (TJIT)** is a private Engineering College located in Bangalore, Karnataka, India. It was established in 2006 by Dr. Thomas P. John and is part of T. John Group of Institutions. The Institute offers Undergraduate, Postgraduate and PhD programmes, and is affiliated to Visvesvaraya Technological University (VTU) and is approved by All India Council for Technical Education (AICTE) and accredited by National Board of Accreditation (NBA).

## Objectives

- To impart science-based engineering education to develop professional skills that will prepare the students for immediate employment and provide them with a solid foundation for further education.
- To provide state-of-the-art infrastructure for students to develop their skills To develop an understanding among students of the human, social and business context in which they will utilize their engineering skills.
- To develop the design capability among students so that they have the ability to participate in creative, synthetic and integrative activities of the relevant branch of engineering.
- To keep pace with changing times by providing quality education through value added courses, beyond the curriculum prescribed by the University.

To create among students the curiosity, the desire and the ability to keep learning throughout life. Character building in students, so as to enable them to become responsible citizens and committed professionals.

# About the Conference

In recent years, Internet of Things [IoT] technology envisions to develop a hyper-connected world, where the intelligent systems can communicate and control each other to deliver highly diversified services and applications to the users. The primary motivation of ICICNIS 2024 is to deliver state-of-the-art research insights on Internet of things [IoT] paradigm to access, manage and control the objects/things/people working under various information systems and deployed under wide range of applications like smart cities, health care, industries, smart homes, etc. 5Th International Conference on IoT Based Control Networks and Intelligent Systems [ICICNIS 2024] aims to showcase the ongoing research works and efforts in the domain of computation management, control networks in IoT Systems. This issue will provide the opportunity for the researchers/academicians/industrialists to gain intensive knowledge on the new emerging IoT technologies and applications.

# Call for Papers

## Track -1 Internet of Things [IoT] Architecture

- Cybersecurity in IoT: Threats, Vulnerabilities, and Countermeasures
- Secure Communication Protocols for IoT Devices
- Intrusion Detection and Prevention Systems for IoT Networks
- Privacy-Preserving Techniques for IoT Data
- Blockchain Technology for IoT Security and Data Integrity
- Trusted Computing and Secure Bootstrapping in IoT Devices
- Identity Management and Access Control in IoT Environments
- Security by Design: Building Resilient IoT Architectures
- Secure Firmware and Software Updates for IoT Devices
- Risk Assessment and Compliance Management in IoT Deployments

## Track -2: Cybernetics Control Networks

- Adaptive and Self-Learning Systems in IoT Environments
- Cyber-Physical Systems (CPS) Integration in IoT Networks
- Bio-Inspired Control Mechanisms for IoT Applications
- Cognitive Computing and Neurofeedback Systems in IoT
- Human-Machine Interaction and Interface Design for IoT Devices
- Swarm Intelligence and Collective Behavior in IoT Networks
- Evolutionary Algorithms for Dynamic Optimization in IoT Systems
- Decision Support Systems and Cybernetic Control in IoT
- Emergent Behavior Analysis in Complex IoT Ecosystems

## Track-3 Quantum Cybernetics

- Quantum-Secure Communication Protocols for IoT Networks
- Quantum Cryptography and Key Distribution in IoT Environments
- Quantum Machine Learning for IoT Data Analytics
- Quantum Sensors and Quantum Metrology in IoT Applications
- Quantum Computing Algorithms for Optimization Problems in IoT
- Quantum-Safe Cryptography Standards for Future-Proof IoT Security
- Quantum-enhanced Sensing and Measurement Technologies for IoT Devices
- Quantum Neural Networks for Pattern Recognition in IoT Data
- Quantum-inspired Optimization Techniques for IoT Resource Management



# Committee

## Chief Patron

Dr. Thomas P. John,  
Chairman, T. John Group of Institutions, Bengaluru.

## Patron

Dr. P. Suresh Venugopal,  
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Professor & HoD (AIML) / R & D Cell Coordinator,  
T. John Institute of Technology, Bengaluru.

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Department of ECE, T. John Institute of Technology, Bengaluru.  
Dr. Kavipriya K,  
Department of MCA, T. John Institute of Technology, Bengaluru.

# Keynote Speakers

## Dr. Apurva Narayan,

The University of British Columbia, Canada.

## Dr. Pavel Lafata,

Czech Technical University in Prague,  
Prague,  
Czech Republic.

## Dr. Shajulin Benedict

Guest Professor of TUM-Germany &  
Faculty-InCharge (R&D and International Affairs)  
Indian Institute of Information Technology,  
Kottayam, India.

# Submission

Authors are requested to submit full length paper  
to the conference Email: [icicnis.conf@gmail.com](mailto:icicnis.conf@gmail.com)

Please follow the given template for Windows and  
Mac format for Full Length Paper Submission

Note: Papers must be submitted in both .DOC and  
.PDF format, In case of LaTeX, .zip file must be  
sent.

# Publication

All registered and presented papers will  
be submitted for inclusion into IEEE  
Xplore.

Author Ethics:

<https://conferences.ieeeauthorcenter.ieee.org/author-ethics/ethical-requirements/>

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