2024 IEEE International Conference on Distributed Computing, VLSI, Electrical Circuits and Robotics (2024 IEEE DISCOVER) is being organized by IEEE Mangalore Subsection (R0011901) and will be held in the serene premises of St Joseph Engineering College in the region of Mangaluru, Karnataka, India. Being the Eighth international conference under IEEE Mangalore Subsection, 2024 IEEE DISCOVER intends to attract people working in diverse fields: Distributed Computing, Software Engineering, VLSI, Verification, Communication Engineering, Electrical and Electronic Circuits, Robotics and Healthcare. The conference is designed to create a platform for researchers from academia and industry, practicing engineers, and students. A series of keynote presentations, technical paper and poster presentations are planned to foster vigorous exchange of research findings and ideas among the participants. All accepted and presented papers will be submitted for possible publication in IEEE Xplore® Digital Library (IEEE Conference ID: 62353), through the IEEE Conference Publications Program (CPP). The proceedings of earlier editions of DISCOVER were published in IEEE Xplore and indexed in Scopus.

CALL FOR PAPERS

2024 IEEE DISCOVER solicits paper submissions across six tracks as listed below. Kindly note that the submissions are not limited to the topics mentioned in each track.

**Track 1: Distributed Computing**
- Multi-core Architecture
- Parallel & Distributed Systems
- Agent-Based Systems
- Autonomic Computing
- Mobile & Ubiquitous Computing
- Service-Oriented Computing
- Scalable Servers and Systems
- Intelligent Computing
- Secured Computing
- GPU Programming
- Parallel & Distributed Algorithms
- Compiler Technologies for HPC
- Peer to Peer Computing
- Cloud Computing
- Network Storage Systems
- High Performance Storage Systems

Edge Computing
Serverless Computing

**Track 2: Communications**
- Network Algorithms
- Network Control & Management
- Disaster Recovery of Networks
- Cognitive Communications
- Wireless Sensor Networks
- Software Defined Networks
- Future Internet Architecture
- Optical Networks
- Internet of Things
- Network Performance Analysis
- QoS for Emergency Applications
- Optical Communications
- Photonics
Wireless and Mobile Networks
Ad hoc and Mesh Networks
Named Data Networking
LTE and 5G Networks
Body Area Networks
Unmanned Aerial Vehicle Networks
RF and Microwave Engineering
Antenna Engineering
Waveguide and Filter design
Microwave Compatability
Electromagnetic Interference
Microwave Theory and Techniques
Optical Fiber Communications

Design of NEMS Devices
Electrical Packaging / codesign
Thin film and devices

Track 4: Electrical and Electronic Circuits
Electrical AC/DC Circuits
Analog and Digital Circuits
High-speed/low-power circuits
Near and sub-threshold circuits
Nonlinear Circuits & Systems
Neural/fuzzy-logic circuits
Energy efficient systems and circuits
FPGA based systems

Track 3: VLSI
VLSI Circuits and Systems
RF Circuit Design and Testing
Emerging Trends in VLSI
Reconfigurable Systems
System on Chip
Heat Dissipation Analysis
Design of MEMS Devices
Optical MEMS Devices
Nanotechnology
Photovoltaics
Analog / Mixed Signals
RF Circuit Analysis
Field Programmable Systems
System Level Design
Physical Design and Testing
Power Awareness Analysis

Track 5: Robotics
Robotic Technologies
Robots for Industrial Applications
Robots for Domestic Premises
Robots for Education
Robots for Health Care
Robots for Transportation
Robots for Commercial Usage
Humanoids

Track 6: Healthcare
Biomedical Sensors and Wearable Systems
Therapeutic and Diagnostic Systems and Technologies
Biomedical and Health Informatics
Translational Engineering for Healthcare Innovation and Commercialization
Biomedical Signal and Image Processing
Pattern Recognition

About the Host Institution – St Joseph Engineering College, Mangalore

St Joseph Engineering College (SJEC) - Mangaluru, a premier educational institution and a hub for Creativity and Innovations in Engineering. SJEC was established in the year 2002 with an aim to educate the youth in Engineering, Technology and Management. SJEC is an Autonomous Institution affiliated to Visvesvaraya Technological University, Belagavi, in the Karnataka State and recognized by All India Council for Technical Education (AICTE), New Delhi. SJEC is professionally managed and forms a part of over 250 educational institutions of the Diocese of Mangalore. The College offers top-class education in Engineering, Business Administration and Computer Applications at UG, PG and Research levels.

The Institution has secured NAAC Accreditation with A+ Grade. Programmes (CSE, ME, ECE, EEE, CV, MBA) offered by the Institution have also been accredited by NBA, New Delhi. It has well-qualified staff, state of the art laboratories and modern amenities for all round development of the students. Presently around 3000 students are studying in the College. At SJEC, the OBE system has been implemented since 2011. SJEC is located in a serene place at Vamanjoor, 10 km from Mangaluru city.
IMPORTANT DATES

Paper Submission Deadline: Friday, May 31, 2024
Acceptance Notification: Thursday August 8, 2024
Registration Deadline: Wednesday, September 18, 2024
CRC Submission Deadline: Wednesday, September 18, 2024
Conference Dates: October 18 - 19, 2024 (Friday and Saturday)

BEST PAPER AWARDS

- Technical Programme Committee of DISCOVER will select One Best Paper in each of the tracks mentioned above.
- Best Paper Awards will be announced and distributed during the Conference.

PAPER SUBMISSION LINK

https://cmt3.research.microsoft.com/DISCOVER2024/

CONFERENCE WEBSITE

https://www.ieee-discover.org/

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