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RECENT ADVANCES IN ELECTRICAL, ELECTRONICS, UBIQUITOUS COMMUNICATION AND COMPUTATIONAL INTELLIGENCE

AN INTERNATIONAL (VIRTUAL) CONFERENCE 22-24 APRIL 2022

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING SRM INSITITUTE OF SCIENCE AND TECHNOLOGY Kattankulathur, Chennai – 603203, Tamilnadu, INDIA









ABOUT THE INSTITUTION

SRM Institute of Science and Technology (formerly known as SRM University) is one of the top ranked Universities in India, offering a wide range of Undergraduate, Postgraduate and Doctoral Programs in Engineering, Medicine & Health Sciences, Management, Science & Humanities, Law, and Agricultural Sciences. SRMIST is accredited by NAAC with the highest Grade of 'A++'. The UGC and MHRD, Department of Higher Education, Government of India, granted a graded autonomy status to SRMIST by classifying it as category-I University. SRMIST secured 2nd position among private Institutions across our country under ARIIA. QS, the world-renowned International ranking agency, has rated SRMIST as a "4 Star" institute with "5 Star" ratings in Teaching, Employability, Inclusiveness and Online Teaching. QS-IGAUGE has awarded Diamond Rating to SRMIST.

ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering (ECE) was established in 1991. The department has collaboration with Central Electronics Engineering Research Institute (CEERI) Chennai, National Instruments, Samsung, CoreEL Technologies, Entuple Technologies (Synopsys) and Optithought. It has received research grants from DST under FIST, SERB under SRG, UGC under FRPS-SRG, DRDO, BRNS and ISRO. The B.Tech (ECE) program of Kattankulathur campus of SRMIST is accredited by NBA, Government of India and EAC of ABET, USA (https://www.abet.org). The Department offers Undergraduate, Postgraduate programs and Ph.D. in research domains related to Signal and Image Processing, Wireless Communications & Networks, RF & Antennas, VLSI & Embedded, Nano-Electronics, Photonics, Optoelectronics and Optical Communications.

VISION: • To create and disseminate knowledge in the area of Electronics and Communication Engineering through national and international accredited educational process. • To facilitate a unique learning and research experience to the students and faculty. • To prepare the students as highly ethical and competent professional.

MISSION: • Build an Educational process that is well suited to local needs as well as satisfies the national and international accreditation requirements. • Attract the qualified professionals and retain them by building an environment that fosters work freedom and empowerment. • With the right talent pool, create knowledge and disseminate, get involved in collaborative research with reputed universities and produce competent graduands.

PROGRAM EDUCATIONAL OBJECTIVES (PEOS): Program Education Objectives (PEO) for the Electronics and Communication Engineering program describes accomplishments that graduates are expected to attain within a few years of graduation. Graduates will be able to:

PEO1: Establish themselves as successful and creative practicing professional engineers both nationally and globally in the related fields of Electronics and Communication Engineering.

PEO2: Apply the acquired knowledge and skills in solving real-world engineering problems; develop novel technology and design products, which are economically feasible and socially relevant.

PEO3: Develop an attitude of life long learning for sustained career advancement and adapt to the changing multidisciplinary profession.

PEO4: Demonstrate leadership qualities, effective communication skills, and to work in a team of enterprising people in a multidisciplinary and multicultural environment with strong adherence to professional ethics.

ABOUT THE CONFERENCE

There has been rapid research and development in technologies related to Electrical, Electronics, Communication, Computation and its allied areas during the past few years and the way it impacted human lives. The scope for further development always exists and this conference would provide the opportunity to discuss the state of art research contributions and to explore the avenues for future work. This conference is aimed to bring researchers, practicing engineers, faculty members and students from across the globe to a common platform to share their research ideas that would pave way to attain solution to various real time problems. Many eminent researchers from different countries are expected to participate and interact with the young students and budding researchers of various institutions who are expected to be a part of this conference. The conference will be held online through Zoom platform in parallel sessions. This platform will provide an insight into recent advancements and techniques to kindle your research interest to aid future developments.

Themes of the Conference

1. Microwave & Optical Devices and Communications

- Antennas and Microwave Devices
- Radio Frequency Integrated Circuits
- Free Space Optics
- Space, Satellite, RF, Optical and Smart Grid Communications
- Optoelectronics: Materials and Devices
- > Fiber optic and Photonics Sensors
- Microwave Photonics
- Machine Learning (ML) and Artificial Intelligence (AI) for Communications
- Quantum Communication and Computing

2. Signal and Image Processing

- Machine Learning (ML) and Artificial Intelligence (AI) for Signal and Image Processing
- Image and Video Processing & Pattern Recognition
- Information Theory & Coding
- Mixed, Multidimensional Signal Processing
- Radar Signal and Data Processing
- Soft Computing Techniques
- Speech and Video Processing
- Biomedical Signal and Image Processing
- Streamed Multimedia Applications
- Management of Multimedia services

3. Electronic Devices, VLSI and Embedded Systems

- Low Power VLSI
- High Frequency Amplifiers
- High Speed Devices
- Solar Cell, LED and LASER
- Device Fabrication and Characterization
- Micro Electronic Device Optimization
- Organic Devices
- > FPGA Implementation
- Embedded Coding and System
- Sensors and Actuators
- Embedded Systems and Security

4. Electrical Engineering

- Power Generation, Transmission & Distribution Systems
- Electrical Machines, Drivers and Application
- Power System and High Voltage Engineering
- Renewable Energies
- Energy Efficiency in Industry
- Micro Machines
- Electrical Traction
- Superconductivity

5. Computational Intelligence

- Big Data Analytics
- Intelligent Robotics and Control
- Human Robot Interaction
- Fuzzy Clustering Algorithms and Optimization Techniques
- Soft Computing Techniques
- Web and Ontology
- Visualizing Web Data
- > IO1
- Cloud Computing, Networking, and Storage

6. Multidisciplinary Engineering and Technology

- ➤ Biomedical Engineering Application
- Mechatronics Engineering
- MEMS related Technologies
- Electric Vehicle Technologies
- Industrial Process Control and Automation
- Instrumentation
- Wind, Solar and Renewable Energy
- Nanotechnology Engineering
- > Information Hiding and Anonymity
- Biometric Technologies and Applications
- Content Protection and Digital Rights Management
- Cryptographic Algorithms

Note: Research topics with allied research areas are also encouraged



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SUBMIT FULL PAPER

KEY DATES

FULL PAPER SUBMISSION DEADLINE : 20 MARCH 2022 (11:59PM IST)

ACCEPTANCE NOTIFICATION : 05 APRIL 2022

REGISTRATION BEGINS : 05 MARCH 2022

REGISTRATION ENDS : 10 APRIL 2022 (11:59PM IST)

REGISTRATION CHARGES

Category	Indians (INR)	Foreigner (USD)
Full-Time students at the UG/PG <mark>/Ph.D. Levels</mark>	₹5000	\$100
Faculty / Professionals	₹6000	\$120

^{*}Individual e-certificates will be provided to all the authors of the registered paper

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