



# International Conference on Electronics, Photonics and Smart Technologies (ICePhaST-2020)

16-18 November 2020



#### **DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

Faculty of Engineering & Technology SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

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In association with

















#### **ABOUT THE INSTITUTION**

SRM Institute of Science and Technology (formerly known as SRM University) is one of the top ranked universities in India with over 50,000 students and 3,177 faculty members, offering a wide range of Undergraduate, Postgraduate and Doctoral Programs in Engineering, Medicine & Health Sciences, Management, Science & Humanities, Law, and Agricultural Sciences. Over the last three decades, it has set standards in experiential learning and knowledge creation across various fields. It has reached beyond borders to universities and corporate across India and around the World. There are four sprawling campuses - three in and around Chennai, and one near New Delhi - spread across 250 acres with all facilities. It had conducted 98th Indian Science Congress in January, 2011 which was attended by 7,000 delegates from India and abroad, including six Nobel Laureates and several eminent scientists. SRM IST is the first private university in India to launch a Nano-satellite, named SRMSAT, into space, on board the PSLVC18 from Sriharikota on October 12, 2011.

SRMIST is accredited by NAAC with the highest Grade of 'A++' with a CGPA of 3.55/4.0 which is valid till 2023. QS, the world-renowned international ranking agency, has rated SRMIST as a "4 Star" institute with "5 Star" ratings in Teaching, Employability and Inclusiveness and QS-IGAUGE has awarded Diamond Rating to SRMIST. SRMIST is classified as Category I University by UGC/MHRD and enjoys 12B status too under UGC Act. SRMIST has been continually and consistently ranked by QS and THE (Times Higher Education) under various categories – World, Asian, BRICS and Indian.

SRMIST always focuses on research which is a hallmark of any institute going by the 'University' tag. Its H index is at 68. The research publications have doubled over the last 5 years. More than 200 patents filed, 70 published and 9 granted. National IP Award 2018 in the category of Top academic institution for Patents and Commercialization by Ministry of Commerce and Industry, GoI and establishment of NewGen IEDC (Innovation & Entrepreneurship Development Cell) at SRM with a funding of 2.87 Crores by NSTEDB (National Science & Technology Entrepreneurship Development Board), DST, GoI have given further impetus in addition to NAAC accreditation. Over the past years governmental agencies have sanctioned close to Rs. 120 Crores worth of projects for SRMIST. Six departments of SRMIST boast of bagging the prestigious FIST awards. Over 500 doctoral degrees have been awarded so far.

#### ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering (ECE) was established in 1991. The department has strong collaboration with industries such as Central Electronics Engineering Research Institute (CEERI) Chennai, Nuvoton Technology Corporation, Taiwan, National Instruments and ALTERA. It received research grants from Department of Science and Technology (DST) under Funds for Improvement of Science and Technology (FIST), Defense Research and Development Organization (DRDO), Board of Research in Nuclear Science (BRNS) and Indian Space Research Organization (ISRO). The B.Tech (ECE) program of Kattankulathur campus of SRMIST is accredited by EAC of ABET, www.abet.org.

#### ABOUT THE CONFERENCE

The Department of Electronics and Communication Engineering, SRM Institute of Science and Technology is happy to organize an **online International Conference on Electronics**, **Photonics and Smart Technologies** (ICePhaST-2020) during 16-18 November, 2020. There has been rapid research and development in technology related to these areas during the past few years and has resulted in change in techniques adopted in various applications. The scope for further development always exists and the 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 to a common platform to share their research work.

This paves way to attain solution to various research problems by sharing technical knowledge to enhance the opportunities in the areas of focus. Many eminent researchers from different countries are expected for participation and will interact with the young students and budding researchers of various institutions who are a part of this conference. The conference will be held on Zoom platform in parallel sessions. No doubt, the conference (ICePhaST- 2020) would explore the research contributions in recent technologies to aid future development.

Submissions for ICePhaST-2020 conference include topics related to Electronics, Photonics and Smart Technologies but not limited to the following.

#### **Electronics**

Analog and Digital Circuits
Application Specific Integrated Circuits (ASIC)
Electromagnetic and Applied Superconductivity
Electronic Instrumentation
Electronic Materials
Microprocessor and Microcontroller
Nano electronics and micro electronics

Nonlinear Circuits and Systems
Power and Applied electronics
Semiconductor Technology

System-on-a-Chip (SoC)

Very Large-Scale Integration (VLSI)

#### **Photonics**

Solitons

THz Sources and Detectors

Ultrashort pulse modeling

Beam Control
Laser / Micro resonators
Laser 3D Manufacturing
Mode locking of fiber lasers
Nonlinear Frequency Mixing Processes
Nonlinear Metamaterials and Metasurfaces
Nonlinear Properties of Plasmonic Materials
Nonlinear pulse propagation in optical fibers
Novel Optical Materials and Applications
Optical Sensors and Imaging Systems
Photonic Integration
Quantum electronics
Signal Processing in Photonic
Simulation and Fabrication of Optical Components

Ultrafast Spectroscopy and its Applications

# **Smart Technologies**

**Automated Transportation** Cyber-physical systems and society Data management in IoT e - Healthcare Intelligent data processing Intelligent sensors and Control process **IOT** devices Localization in IoT **Robotics and Automation** Signal Processing **Smart City applications** Smart Wearable Devices **Underwater Communication** Vehicular Communication Systems Wireless Communication and Wireless Sensor networks Selected and presented papers will be published in scopus indexed Journal



#### **Invited Talks from Eminent Researchers**



Padma Shri Dr. Mylswamy Annadurai

'The Moon Man' Director, Indian Space Research Organisation Satellite Centre, (ISAC), Govt. of India, Bangalore, India.



Prof. Stephen C. Rand,

Director, MURI Center for Dynamic Magneto-Optics, University of Michigan, USA.



Prof. Hiroshi Inokawa Shizuoka University, Japan.



Prof. Tu N. Nguyen

Director of Network Science, Optimization and Security Labs, Department of Computer Science, Purdue University Fort Wayne, USA.



**Prof. Chennupati Jagadish** 

Australian National University, Australia.



**Prof. Hugh Barr** 

Gloucestershire Hospitals, NHS Foundation trust, United Kingdom.



**Prof. Bhuvan Unhelkar** 

University of South Florida, Sarasota-Manatee, USA.



**Dr. Thinagaran Perumal** 

Universiti Putra Malaysia, Malaysia.













Dr. Vamsi Krishna Velidi Indian Space Research Organization (ISRO) Govt. of India, Bangalore, India.



Prof. Dipak K. Palit UM-DAE Centre for Excellence in Basic Sciences, Mumbai, India.



Prof. P. K. Datta Indian Institute of Technology, Kharagpur, India.



Dr. Dhruba Jyoti Biswas Bhabha Atomic Research Centre, Mumbai, India.



Prof. Subir Kumar Sarkar Jadavpur University, Kolkata, India.



Dr. K. R. Murali Mohan Mission Director, NM-ICPS Department of Science & Technology, New Delhi, India.



**Dr. Deepa Venkitesh Indian Institute of Technology, Madras, India.** 



Dr. Balaji Srinivasan Indian Institute of Technology, Madras, India.











# Dr. Binsu J Kailath Indian Institute of Information Technology Design and Manufacturing, Madras, India.



Dr. Madan Kumar Lakshmanan Council of Scientific & Industrial Research Ministry of Science and Technology, Government of India.



#### **AUTHOR GUIDELINES**

Manuscript should be in single column format with line spacing 1.5 and Arial 12 font size Manuscript should be Plagiarism checked and it should be less than 10 % Authors can send their manuscripts to icephast2020@srmist.edu.in / icephast2020@gmail.com.

# REGISTRATION FEE DETAILS

Participant within India (INR)

From academia : 3000
From Industry : 4000
Participants outside India (USD) : 100
Register at : https://forms.gle/PnkBtZMmgCjJPu1G9

#### **PAYMENT DETAILS**

Payment Details (DD / NEFT / IMPS Transfer)

Bank : City Union Bank : Tambaram Extension

Branch Code : 117

Account Name : ECE Association Account No : 11700 10008 84762

IFSC Code : CIUB0000117

#### **IMPORTANT DATES**

Last Date for Manuscript Submission : 01.11.2020
Acceptance Notification : 07.11.2020
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Last Date for Registration : 11.11.2020

#### **Address for Communication**

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