



SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)



IIITDM
KANCHEEPURAM

Workshop on

ROSMD - 2022

**Research Opportunities in Semiconductor
Materials and Devices**

19th to 24th October 2022

Jointly Organized by
Department of Electronics and Communication Engineering of
SRM Institute of Science and Technology (SRMIST), Chennai
&
Indian Institute of Information Technology Design and Manufacturing
(IIITD&M), Kancheepuram

Sponsored by

NANOACADEMIC
TECHNOLOGIES

Coherent Modeling



SRM Innovation and
Incubation Centre

SRMIST, Kattankulathur



IIITDM, Kancheepuram



INSTITUTION'S
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(Ministry of HRD Initiative)

Workshop Overview

Electronic materials are the type of materials which are typically used as core elements in a variety of device applications. New semiconductor materials and devices are the subversive frontier technology emerging among the international research community in recent years and also a propeller for the development of new submicron technology. It brings fundamental changes to the traditional material and devices research mode, aiming to accelerate the research and development of new materials and reduce costs, so as to support the development of electronic information, energy and environmental protection, aerospace, and other industries. India has long been active in the field of semiconductor devices, dating back to famous scientists Sir C. V. Raman & Sir J. C. Bose. Today, India is home to numerous research groups and VLSI foundries that own a sizeable amount of the contribution around the globe. Recently new materials & new technology is adopted to improve the performance of semiconductor devices to achieve a broad range of application. Atmanirbhar Bharat policy is the voice of country. Many organizations are working tirelessly towards the establishment of indigenous technologies. The course will predominantly focus on the current status and future development of semiconductor materials and devices both in India and world.

The aim of this workshop is to provide a clear pathway for new comer as well as existing research community towards innovation in semiconductor materials and devices. It also emphasis on available platform for researchers in India as well in globe. The workshop will provide an introductory overview of Semiconductor materials & devices including 2-D materials, n a n o s c a l e device modeling and Simulation with MATLAB, TCAD & Python, RESCU+, NanoDCAL & NanoDCAL+ from Nanoacademic Technologies, Device Fabrication and available platforms in India. Development in the existing technologies such as VLSI and ULSI Technology. Devices such as High frequency Devices, Compound Semiconductor, Optoelectronics, Photovoltaics, Flexible & Organic Electronics, Memristor, etc. will also be covered.



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About the Institutions

SRM Institute of Science and Technology (formerly known as SRM University) was established in 1985 by the Founder Chancellor, Dr. T. R. Paarivendhar. SRMIST is the most premier engineering destination and top ranking university in India. SRMIST is functioning in four campuses located at Kattankulathur, Vadapalani, Tiruchirappalli and Ramapuram in Tamilnadu, Modi Nagar in Ghaziabad with over 52,000 students and 3100 faculty members. It offers a wide range of programs to students applying for undergraduate, post-graduate and doctoral programs in Engineering, Management, Medicine & Health Sciences, Agricultural Sciences, Law and Science & Humanities. The Institution has moved up through International alliances and collaborative initiatives to achieve global excellence. The SRMIST also collaborates with foreign Universities like MIT, Carnegie Mellon University (CMU), Pittsburg University etc., offering postgraduate academic program MSIT- ESE. SRMIST has been recognized as Category I University by Ministry of Human Resources Development (MHRD), Government of India. SRMIST is accredited by NAAC with 'A++' Grade. SRM Institute of Science and Technology has been awarded a Four-Star rating by Quacquarelli Symonds ('QS'), a leading global higher education company. SRMIST ranked 24th in the NIRF engineering category. In the overall university category, SRMIST has been ranked at 19th position in the NIRF ranking 2022.

IIITD&M Kancheepuram is a Centre of Excellence for technical education and research established in 2007 by the Ministry of Education, Government of India to pursue design and manufacturing oriented engineering education with research leading to promote the competitive advantage of Indian products in global markets.

About the Departments

The Department of Electronics and Communication Engineering (ECE) of SRMIST was established in the year 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.

The Department of ECE at IIITDM Kancheepuram is presently offering B.Tech program in Electronics and Communication Engineering (Design & Manufacturing), Dual Degree program leading to B.Tech and M.Tech Degrees, Ph.D. program in core and applied areas of engineering. The faculty members of the department are also involved in sponsored and consultancy research projects from reputed industries and government organizations.

Registration Details

Bank	: City Union Bank,
IFSC	: CIUB0000117
Account Number	: 11700 10008 84762
Account Name	: ECE Association

Category	Fee
Industry Professionals	Rs. 500
Faculty/Academicians	Rs. 300
Ph.D. scholars/UG/PG Students	Rs. 200

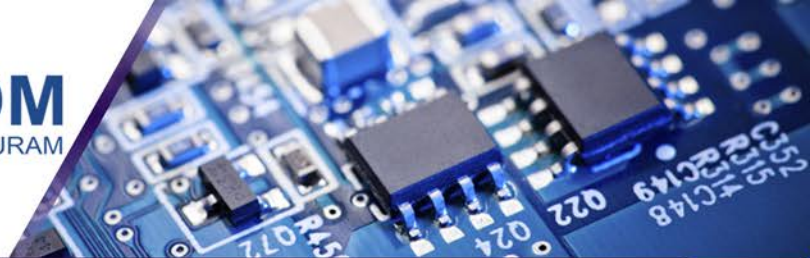
The registration fee includes soft copy of course materials and e-certificate. The confirmation of participation would be sent through email.

The expert lectures will be in online mode(Zoom).

You are required to apply online using the following link/scan QR Code:

1. <https://forms.gle/fgMF82a3Yt6hvwUA6>
2. Fill up the registration form.
3. Please make payment prior to start and enter the payment details in registration form





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Dr. Rajesh Agarwal (SRMIST),
Dr. K P Pradhan (IIITD&M)

ORGANIZING COMMITTEE

Dr. Sachin Kumar
Dr. Sandeep Kumar P
Dr. Md Jawaid Alam
Dr. Aditya Nath Bhatt

ADDRESS FOR COMMUNICATION

The Convener - ROSMD,
Department of ECE,
College of Engineering and Technology,
SRMIST, Kattankulathur – 603 203.
Email: soumyars@srmist.edu.in
Ph: +91 8093919822

Important Dates

Last date for registration: 10-Oct-2022
Intimation to participants: 11-Oct-2022

Resource Persons



Prof. Parthasarathi Chakrabarti
Director, IEST, Shibpur



Prof. Subramanian. S. Iyer
UCLA



Prof. Satyabrata Jit
IIT(BHU), Varanasi



Prof. S. Sundar Kumar Iyer
IIT Kanpur



Prof. Subhananda Chakrabarti
IIT Bombay



Prof. Brijesh Kumar
IIT Roorkee



Dr. Chetan Gupta
Micron Technology(R&D)



Dr. Debiprasad Panda
IMEC Belgium



Prof. T. R Lenka
NIT Silchar



Prof. Jhuma Saha
IIT Gandhinagar



Prof. Brajesh Rawat
IIT Ropar



Prof. Ravindra Kumar Jha
IIT Guwahati



Prof. Avirup Dasgupta
IIT Roorkee



Prof. Shubham Sahay
IIT Kanpur



Prof. K. P Pradhan
IIITDM Kancheepuram



Prof. Kaushik Nayak
IIT Hyderabad



Mr. Anil Kumar Sharma, MD
Impulse Technology