

ABOUT THE INSTITUTION OF ENGINEERS (INDIA)

The Institution of Engineers (India) or IE(I) is the largest multidisciplinary professional body that encompasses 15 engineering disciplines and gives engineers a global platform from which to share professional interest. IE(I) has membership strength of over 0.8 million. Established in 1920, with its headquarters at 8 Gokhale Road, Kolkata - 700020, IE(I) has served the engineering fraternity for over nine decades. In this period of time it has been inextricably linked with the history of modern-day engineering.

In 1935, IE(I) was incorporated by Royal Charter and remains the only professional body in India to be accorded this honour. Today, its quest for professional excellence has given it a place of pride in almost every prestigious and relevant organization across the globe. IE(I) functions among professional engineers, academicians and research workers. It provides a vast array of technical, professional and supporting services to the Government, Industries, Academia and the Engineering fraternity, operating from 125 Centres located across the country. The Institution provides grant-in-aid to its members to conduct research and development on engineering subjects.

IE(I) conducts Section A & B Examinations in different Engineering disciplines, the successful completion of which is recognized as equivalent to Degree in appropriate field of Engineering of recognized Universities of India by the Ministry of Human Resources Development, Govt. of India. Every year as many as 90000 candidates appear for these exams. For details, please see: www.ieindia.org

ABOUT SRMIST

SRM Institute of Science and Technology is one of the top ranking Universities and most premier engineering destinations in India. It was established in 1985 by the Founder Chancellor Dr. T.R. Paarivendhar. SRMIST is functioning in four campuses located at Kattankulathur, Vadapalani and Ramapuram in Tamilnadu and a fourth campus at Modi Nagar, Ghaziabad with over 50,000 students and 3,020 faculty members. SRMIST offers a wide range of undergraduate, postgraduate and doctoral programs in Engineering, Management, Medicine & Health Sciences, Law and Science & Humanities. The Institution has grown up through international alliances and collaborative initiatives to achieve global excellence. Over 150 students are sponsored for 35 foreign Universities like MIT, Carnegie Mellon, UC Davis, Warwick and Western Australia. Now the Institute

enjoys an unsurpassed reputation in academic and corporate circles being as the preferred human resource, for its vision to be as a world - class learning institution. SRMIST has been categorized as grade A University by Ministry of Human Resource Development (MHRD); Government of India. SRMIST is accredited by NAAC with highest A+ + Grade in the year 2018.

ABOUT THE DEPARTMENT

The Department of Electronics and Communication Engineering (ECE) was established in the year 1991-92. The Department offers one UG Program, three PG programs and Doctoral Program. The Department is housed with adequate number of spacious lecture rooms and has 18 well equipped and furnished laboratories ample resources in computing equipment, including personal computers running the full suite of Ansys HFSS, Keysight ADS, CADENCE, OrCAD, MATLAB and Network Simulation Software. It has USRP-RIO SDR hardware, Vector Signal Generator & Analyzer and Network Analyzer. It received significant research grants from the Department of Science and Technology (DST) under Funds for Improvement of Science and Technology (FIST). Received funded research grants from Defence Research and Development Organization (DRDO), Board of Research in Nuclear Science (BRNS) and Indian Space Research Organization (ISRO). Also received, Full-Time, PartTime Fellowships under Visvesvaraya PhD Scheme for Electronics from MeityGoI. The department has strong collaboration with industries and reputed institutes.

ABOUT WORKSHOP

Biomedical signal processing involves the treatment and analysis of bio-signal measurements. It is done in order to provide useful information which clinicians can use to make decisions. Novel signal processing methods have assisted in revealing information that entirely altered the previous approaches taken in the diagnosis of different diseases. Nowadays, there is a great deal of interest in machine learning applications in health, biomedicine, and biomedical engineering. The recent advances in biomedical signal processing and machine learning have brought forth incredible progress to different areas in signal analysis and processing, including biometrics, medical data processing, etc. The motive of this one-day workshop is to present recent advances in signal processing and machine learning techniques for biomedical signal analysis. The workshop is targeted to the researchers working in this field, covering new theories, algorithms, implementations, and applications for signal and data analytics. Potential topics of

interests are related to recent advances in machine learning in signal analysis and processing like:

- ✦ Biomedical Signal Processing and Analysis
- ✦ Biomedical Image Processing and Analysis
- ✦ Brain Computer Interface
- ✦ Thermography as a diagnostic tool
- ✦ Computer aided detection (CAD)

RESOURCE PERSONS



Dr. P. M. Nabeel
Research Scientist (Cardiovascular Science & Engineering)
Healthcare Technology Innovation Centre
IIT Madras, Taramani.

Topic: Methodological and Measurement concerns of Physiological signal acquisition and processing.



Dr. P. A. Sridhar
Research Assistant Professor
Department of EIE
SRMIST, Kattankulathur

Topic: Aspects of extracting meaningful information from biomedical signals for cardiovascular, muscular and Parkinson's disease.



Dr. Damodar Panigrahy
Assistant Professor
Department of ECE
SRMIST, Kattankulathur

Topic: Application of machine learning approach for diagnostic techniques.



Dr. U. Snehalatha
Associate Professor
Department of Biomedical Engineering
SRMIST, Kattankulathur

Topic: Thermal Image analysis using machine learning and deep learning techniques.

TARGET PARTICIPANTS

- ◆ Faculty members of Engineering Colleges / Universities.
- ◆ Research scholars, UG & PG Students pursuing research / project work in this field.
- ◆ Industry personnel.

REGISTRATION FEE

Participants	Member-IEI	Non Member IEI
Student	Rs.150/-	Rs. 200/-
Research Scholar/ Faculty/ Industry Person	Rs. 200/-	Rs.250/-

REGISTRATION FEE INCLUDES

* Lunch and Refreshment * Workshop Kit

NOTE

No TA / DA will be provided

No accommodation will be provided

IMPORTANT DATES

Last date of Registration 11th March 2020

PAYMENT:

Demand Draft / Cheque, drawn in favour of "The Institution of Engineers (India), Kattankulathur Local Centre", payable at Chennai.

Online Transaction / NEFT:

Account number: 38988416050 IFSC CODE: SBIN0019004

REGISTRATION (Mandatory)

After payment, register through below link

Link: <https://tinyurl.com/emlb2020>

ADDRESS FOR COMMUNICATION

Dr. R. Kumar, FIE (Convener)
Professor, ECE Department
Faculty of Engineering and Technology
SRM IST, Kattankulathur – 603 203.
Mobile : +91 8056256491
Email: emlb2020workshop@gmail.com

PATRONS

Dr. T.R. Paarivendhar, Founder Chancellor, SRMIST
Mr. Ravi Pachamoothoo, Pro Chancellor(Admin), SRMIST
Dr. P. Sathyanarayanan, Pro Chancellor(Academics), SRMIST
Dr. R. Shivakumar, Vice-President, SRMIST

TECHNICAL COMMITTEE

Dr. Sandeep Sancheti, Vice-Chancellor, SRMIST
Dr. T. P. Ganesan, Pro Vice-Chancellor (P&D), SRMIST
Dr. N. Sethuraman, Registrar, SRMIST
Dr. C. Muthamizhchelvan, Director (Engg.&Tech.), SRMIST
Dr. T. Rama Rao, Prof & Head, Dept. of ECE, SRMIST

ORGANIZING COMMITTEE

Er. Narendra Singh, FIE, President, IE(I)
Er. R. Ramdoss, FIE, Chairman, IE(I), TNSC
Er. P. Gomathi Nayagam, FIE, Honry. Secretary, IE(I), TNSC
Dr. P.T. Ravichandran, FIE, Chairman, IE(I), KTR LC
Dr. S. Dhanalakshmi, FIE, Honry. Secretary, IE(I), KTR LC

CO-ORDINATOR

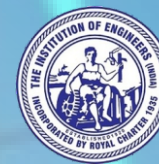
Mrs. A. Jaba Deva Krupa, MIE, ECE, SRMIST.

MEMBERS

Dr. K. Kalimuthu, MIE, ECE, SRMIST
Dr. C. T. Manimegalai, MIE, ECE, SRMIST
Dr. Sabitha Gauni, MIE, ECE, SRMIST
Dr. R. Dayana, MIE, ECE, SRMIST
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Mrs. R. Monika, MIE, ECE, SRMIST
Mrs. S. S. Gayathri, MIE, ECE, SRMIST

Note:

Participants are suggested to bring their laptops installed with MATLAB of any version for Hands-on session.



The Institution of Engineers (India)

(Established 1920, incorporated by Royal Charter 1935)

Kattankulathur Local Centre

ONE DAY WORKSHOP ON EMERGING MACHINE LEARNING TECHNIQUES IN BIOSIGNAL PROCESSING (EMLB-2020)

March 18th, 2020

Organized under the Aegis of
Electronics and Telecommunication Engineering
Division Board

In association with



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

DEPT. OF ELECTRONICS & COMMUNICATION ENGINEERING
Faculty of Engineering & Technology
SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
Kattankulathur – 603 203 Phone: 044-27452270, 27453380.
Website: www.srmist.edu.in

Venue: Sir JC Bose Seminar Hall, 12th Floor,
Tech Park, SRMIST