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CONVENER

Dr. K.A. Sunitha,
Head of the Department,
Department of Electronics and
Instrumentation Engineering, SRMIST

CO-ORDINATOR

Mrs. A. Brindha, Assistant Professor, EIE,
SRMIST

ORGANIZING COMMITTEE

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Dr. Joselin Retna Kumar, Associate
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Mrs. S. Indirani, Assistant Professor, EIE
Dr. P. A. Sridhar, Research Assistant
Professor, EIE

Registration fee:

Students/Research Scholars: Rs 100 /-

Faculty: Rs 200 /-

Industry/Research Labs: Rs.500 /-

The participants are requested to pay through net
banking and provide the transaction details in the
registration form.

Bank Name : City Union Bank, Tambaram
Extn., Kattankulathur,

IFSC number : CIUB0000117,
Account number : 117001001672075

Beneficiary name: SRM IST EIE Association

Note: Mention your name in the NetBanking transaction
comment.

Registration link: <https://forms.gle/tDEdkgPVVU38Ta4LA>

Last date for completing registration: **31.01.2022**

FOR REGISTRATION CONTACT

Mrs. A. Brindha
Contact no.: 9884837225
Alternate no: 044-27417830

For more details visit our social media Website.

Facebook link:
<https://www.facebook.com/eiesrmktr/>

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Twitter link:
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SRM

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

**FIVE DAYS WORKSHOP
ON**

**DEEP LEARNING FOR MULTI SPECTRAL
IMAGING APPROACH IN HEALTH CARE
TECHNOLOGY**

CONDUCTED BY,

DEPARTMENT OF ELECTRONICS AND
INSTRUMENTATION ENGINEERING
COLLEGE OF ENGINEERING AND TECHNOLOGY
SRM INSTITUTE OF SCIENCE AND
TECHNOLOGY

FEBRUARY 07-11, 2022

ONLINE MODE

In Association with



**INDIRA GANDHI CENTRE FOR
ATOMIC RESEARCH**

*(In Principle)
Sponsored
by*

**BRNS
DAE**

IET The Institution of
Engineering and Technology

ABOUT SRMIST

SRM Institute of Science and Technology (formerly known as SRM University) is one of the top ranking Universities and most premier engineering destinations in India, which was established in 1985 by the Founder Chancellor, Dr. T.R. Paarivendhar. Now it 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 SRMIST hosted 98th Indian Science Congress Association in 2011. SRMIST has been engaged in nurturing minds through a rich heritage of academic excellence. Essentially a hub of bustling student activities, the green and beautiful campus has been a second-home to thousands of students in their journey to pursue higher education. 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 a postgraduate academic program MSIT-ESE. Over 200 students were sponsored to 35 foreign Universities like Carnegie Mellon, UC Davis, Warwick and Western Australia. Now the Institute enjoys an unsurpassed reputation in academia and corporate circles being the preferred manpower source for vision to be recognized as a world-class learning institution. SRMIST has been recognised 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 (formerly known as SRM University) has been awarded a Four Star rating by Quacquarelli Symonds ('QS'), a leading global higher education company.

ABOUT THE DEPARTMENT

The Department of Electronics & Instrumentation Engineering was started in the year 2007-08. Our major emphasis of imparting technical training is to encourage curiosity and innovation among our students and lay a foundation from where they can acquire quick learning ability and adapt with the fast-changing needs of the industry. The scope of Electronics & Instrumentation Engineering is vast and fast growing to cater the needs of manufacturing and

process industries. Our Department faculty and students have published 89 patents, 399 journal publications since 2010 and have received various DST, SERB, BRNS, and MHRD funded projects. The Department is accredited by IET and has been recognized by IASC - Sector Skill Council - Affiliated to Ministry of Skill Development and Entrepreneurship, Govt. of India in 2018.

ABOUT THE WORKSHOP

The aim of this workshop is to bring together all the people involved in multispectral image processing and to provide knowledge in Image Processing using Deep learning to staff, researchers & students of various engineering colleges. The participating institutions, SRMIST, BARC, and IGCAR are the collaborating granites in various research activities of the department. The workshop will include all basics and in-hand knowledge of computer vision techniques for image processing tasks. This workshop will focus on the applications of machine learning and deep learning techniques for multispectral image analysis. The participants will go through the in-depth details and practical implementations issues and solutions. The workshop will equip the participants with hands-on experience in different fusion techniques and their challenges. The workshop will be illuminated by highly experienced and energetic instructors who possess deep academic/industry experience in their respective fields.

RESOURCE PERSON

Experts from IGCAR/BARC/IITs, reputed institutions, and industries in the field of Medical Image processing and Deep Learning will deliver online hands-on sessions. All sessions including Hands-on sessions are suitably designed to provide practical exposure to the concepts.

SESSION DETAILS

DAY 1- 07/02/2022

SESSION 1

FUNDAMENTALS OF IMAGE PROCESSING

SESSION 2

INTRODUCTION AND FUNDAMENTALS OF DEEP LEARNING TECHNIQUES.

DAY 2- 08/02/2022

SESSION 1

PERCEPTRON THEORY, TENSOR FLOW BASICS
MULTICLASS CLASSIFICATION AND CONVOLUTION
NEURAL NETWORKS

SESSION 2

IMAGE CLASSIFICATION
HANDS-ON USING PYTHON

DAY 3- 09/02/2022

SESSION 1

FUNDAMENTALS OF THERMAL IMAGING.
INDUSTRIAL APPLICATIONS OF THERMAL IMAGING.

SESSION 2

BIOMEDICAL APPLICATIONS OF THERMAL
IMAGING.
DEEP LEARNING APPROACHES OF THE THERMAL
IMAGE.

DAY 4-10/02/2022

SESSION 1

FUNDAMENTALS OF TERAHERTZ IMAGING
INDUSTRIAL APPLICATIONS OF TERAHERTZ
SPECTROSCOPY.

SESSION 2

BIOMEDICAL APPLICATIONS OF TERAHERTZ
SPECTROSCOPY.
DEEP LEARNING APPROACHES OF TERAHERTZ
SPECTROSCOPY.

DAY 5-11/02/2022

SESSION 1

FUNDAMENTALS OF MULTISPECTRAL IMAGE.

SESSION 2

PIXEL TO PATIENTS
ROLE OF HYPERSPECTRAL IMAGE
CLASSIFICATION IN DIAG