

Eligibility	Faculty Member, Research Scholar, Student from Engineering Institutes or Engineers from Industries with Computer Science/ Electronics & Comm./ IT/ Computer Application/EE/Robotics background.
Mode of Selection	Application will be accepted on a first come first serve basis. Number of participants is limited to 30. The completed registration form must reach the address for correspondence on or before 30.11.2020.
Mode	Virtual/On-line
Important Dates	<ul style="list-style-type: none"> ○ Last date for application: 30rd Nov., 2020 ○ Intimation to applicants: 4th December, 2020

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Joint Coordinators
Contact Mail-id

Short Term Course
on
Machine Learning in Healthcare
7th Dec– 11th Dec, 2020

Sponsored by
TEQIP, IESTS



Organized by

Department of Computer Science & Technology
Indian Institute of Engineering Science and Technology, Shibpur
Registration:

A filled-in Registration form is to be submitted within 30th November, 2020 using the following e-mail address:
ml.health.iests@gmail.com
[No Registration Fees required]

Eligibility Criteria:
This workshop is primarily designed for Post Graduate students, Research Scholars and faculty members

About IESTS

On 24th November, 1856, the Civil Engineering College, Calcutta was opened to impart technical and scientific education. From 1865-79, it functioned as an adjunct of Presidency College, Calcutta. From 1880-1887, it was shifted to the site of Bishops College at Shibpur and was called Government Engineering College. In 1920, it came to be known as Bengal Engineering College under the University of Calcutta. In 1993 the College was given the status of a Deemed University. In 2004, it was further renamed the Bengal Engineering and Science University, a full fledged state Govt. University. In recognition of its immense contribution to technical education to the nation, in 2014, the Institute was transformed to Indian Institute of Engineering Science and Technology, Shibpur, an Institute of national importance.

About the Dept.

The Department of Computer Science and Technology (CST) was established in 1982. Since its inception, the department has played an important role in developing a vibrant and forward-looking academic environment. It can boast of a team of highly competent faculty members. Currently, the department offers B.Tech, M.Tech, and PhD programs. The department always maintains state of the art infrastructure and facilities for advanced research and consultancy. Currently, the major thrust areas of research of this department are Bioinformatics, image processing, pattern recognition, IoT, machine learning, VLSI Design and Testing.

About the Course

Recent advancements in Internet, wireless networks, mobile computing, sensor networking and cloud computing technologies altogether have led to the widespread use of the computer technology in the research and development of the healthcare systems (e.g., telemedicine, wellness management). Over the last few years, diverse forms of signal, image processing, pattern recognition techniques and wireless technologies are in exploitation and exploration process to facilitate computer aided diagnosis and remote healthcare support. **Machine learning (ML)**, a subset of **Artificial Intelligence (AI)**, is being used of late that offers ability to automatically learn from the huge medical data and thereby improve performance invoking domain experiences/expertise without doing an explicit programming. The use of ML comes from the two fold needs: generation

of huge amount of data due to digitization of health records and diverse imaging modalities in one hand and on the other hand the complex nature of biomedical signals as well as an incomplete or partial knowledge to the human anatomy. ML algorithms look appealing for the extraction of important information hidden in the healthcare data, its interpretation using human intelligence which facilitate experts to diagnose the patients more accurately. Use of information and communication technologies (ICT) then lead to the cost efficient and improved access to the healthcare system to the people, especially a large section of population live in rural India. The short term course put forward an effort to listen from different domain experts and synergistic integration of various technologies enrich the participants about the usage of technology in healthcare services.

Course Coverage

- Introduction to AI and Machine Learning
- State of the art applications with CNN, RNN
- GAN logic, applications and intuitions.
- Machine learning in Medical Imaging
- Machine learning in Bioinformatics
- Machine learning in EEG signal analysis
- Machine Learning in Parkinson's/Ophthalmological image/data analysis
- Machine learning in skin Cancer

List of Speakers (Tentative)

Prof. Malay K. Kundu, Retired Professor, ISI Kolkata
Prof. Amit Konar, Jadavpur University, Kolkata
Prof. Sumantra Dutta Ray, IIT Delhi
Prof. Mrinal Mandal, University of Alberta, Canada
Dr. Debdoot Sheet, IIT Kharagpur
Dr. Angshul Majumder, IIIT Delhi
Dr. Jotirmay Chatterjee, SMIT IIT Kharagpur
Prof. Pabitra Mitra, IIT Kharagpur
Prof. Jaya Sil, IEST Shibpur
Prof. Santi P. Maity, IEST Shibpur
Dr. Sudeshna Sil Kar, CWRU, Cleveland, Ohio, USA

Call for Participation

Short Term Course on

Machine Learning in Healthcare
7th Dec – 11th Dec, 2020

Registration

Name:

Designation:

Affiliation:

Email ID:

Contact Number:

Postal Address:

Please send the signed scan copy of registration form in the following e-mail address: ml.health.iiests@gmail.com

Coordinators: Jaya Sil and Santi P Maity
Signature of the participant