ICFAI Foundation for Higher Education
(Deemed-to-be-University under Section 3 of the UGC Act, 1956)

IcfaiTech
Faculty of Science & Technology (FST)

A Five-Day Online Faculty Development Program on

Deep Learning Approaches for 5G and Software Defined Networks

4th - 8th April 2022

Call for Registration and Participation

Coordinators

Mrs. P. Rohini

Mrs. Sathya A.R

Organized by the

Department of Data Science and Artificial Intelligence

IcfaiTech

Hyderabad-501203

Overview:

Machine learning (ML) is the scientific study of algorithms and statistical models that computer systems use to perform a specific task without using explicit instructions, relying on patterns and inference instead. Deep Learning is the next technological revolution and the fourth industrial revolution. The evolution of wireless networks from the first to fourth generation has made smart devices and technologies a significant part of our daily activities. The 5G network is a ground-breaking technology that proposes to transform the way individuals use the internet, via the creation of enabling atmosphere. 5G promises faster and superior quality with better security guarantee in comparison to preceding technologies.

Software-Defined Networking (SDN) has emerged as a new intelligent architecture for network architecture to reduce hardware limitations. SDN is introduced to separate the control plane outside the switches and enable external control of data through a logical software component called controller. SDN provides simple abstractions to describe the components, the functions they provide, and the protocols to manage the forwarding plane along with Mobile IP from a remote controller via a secure channel.

Different architectures of the deep learning algorithms such as the convolutional neural network, generative adversarial network, dense neural network, deep reinforcement learning, long short-term memory, auto encoder, and deep recurrent neural network were applied in 5G to solve problems in cybersecurity defense system, resource management, energy, mobile networks, and 5G-enabled IoV.

Objectives:

The objective of the FDP is to enrich faculty with deep learning concepts in order to enable them to teach to student community and to take up research. This FDP is designed to provide the participants with an exposure to the fundamentals of introductory Deep Learning, Classical Neural Networks and its variants, Deep Learning techniques and applications.

Resource Persons:

Eminent personalities and experts from IcfaiTech, renowned Indian & foreign universities and industries will be delivering the lectures.

Course Content:

- Foundations of ML & DL
- Recent Trends and approaches in Deep Learning
- AI & Data Monopoly
- Computer Vision
- MLOps: Paradigms in Machine Learning Operations in Production.
- SDN Fundamentals and Techniques
- ML and AI in 5G and Beyond
- Deep Learning Approaches for Intelligent Reflecting Surfaces in 5G and Beyond
- GPU Clustering
- DL and ML Approaches for SDNs
- Security Issues in SDN & 5G
- 5G in Health Care
- Hands on Data Engineering with Free Software
- Social Impact Projects on AI/ML

Registration is open to:

- Faculty Members
- Research Scholars
- Personnel with basic knowledge in the core subjects.

Registration:

Registration to the FDP program can be done by filling in the details using the link/QR code as appended below.

Link:

https://www.ifheindia.org/icfaitech/Conference/FDPDL5G/registration.html

The FDP program will be offered in an online mode and is limited to 100 participants. A digital participation certificate will be provided to the participants attending all the sessions. The link for attending the online sessions will be shared after completing the registration.

LAST DATE for registration: 04-04-2022

Registration Fee:

Category of participants	Registration Fee
Faculty Members	**₹ 100**
ICFAI group of institutions including IFHE and Alumni	**₹ 100**
Research Scholars	**₹ 50**

About ICFAI Group:

ICFAI was established in 1984 as a not-for-profit society whose broad objective is to empower citizens through world-class quality education. ICFAI has established 11 Universities across India. The ICFAI Universities are located at Hyderabad [The ICFAI Foundation for Higher Education (IFHE), which is a Deemed University], and Dehradun, Himachal Pradesh (Baddi), Jaipur, Jharkhand, Meghalaya, Mizoram, Nagaland, Raipur, Sikkim, and Tripura are state established private Universities.

About IFHE Hyderabad:

The ICFAI Foundation for Higher Education is a deemed University established under section 3 of the UGC Act, 1956. It has evolved a comprehensive student-centric learning approach consisting of several stages, designed to add significant values to the learner's understanding in an integrated manner, covering relevant knowledge, practical skills, and positive attitudes. The University is a member of the Association of Indian Universities (AIU) and Association of Commonwealth Universities (ACU). IFHE offers UG, PG, and Ph.D. programs in Management (ICFAI Business School), Science and Technology (IcfaiTech), Law (ICFAI Law School) and Architecture (ICFAI School of Architecture).

About IcfaiTech:

IcfaiTech (Faculty of Science & Technology) is a constituent of The ICFAI Foundation for Higher Education (IFHE). IcfaiTech aims at nurturing graduates and researchers who are critical thinkers, creative, and have a holistic education experience. Students are given the flexibility to choose their academic courses from a wide range of electives offered to them at the first degree and higher degree levels. Innovative methods of teaching, cutting-edge curriculum, workshops, and internships further broaden our students' intellectual and global outlook.

About Department of DS&AI:

The Department of DS & AI was established in 2018 with the intention to integrate knowledge into programs that can handle data and solve complex problems. The department is a part of IcfaiTech, IFHE. Data science is transforming business, industry, government, social interaction and research. The department (DSAI) is at the forefront of research into the technologies that are driving this change. The department is staffed with highly qualified and well experienced teachers with more than 80% of teaching fraternity completed their Ph.D. from IIT, NIT, IIIT, and other renowned universities. Our expertise covers a number of key research areas like Machine Learning, Deep Learning, Optimization, Computational and Collective Intelligence, Vision and Language, Blockchain Technology etc. The department is actively involved in shaping a pool of highly qualified professionals in this emerging field.

For any queries please contact:

FDP Coordinators:

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