

ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON

Mathematical Models for Machine Learning and



 $(11^{th} July - 20^{th} July 2022)$

Organised by

Electronics & ICT Academy, NIT Warangal

in association with

Faculty of Science & Technology (IcfaiTech)
ICFAI Foundation for Higher Education, Hyderabad

(Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI)

Preamble:

"Electronics & ICT Academy" was set up at NIT Warangal with financial assistance from Meity, GoI. The jurisdiction of this academy is Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry and Andaman & Nicobar Islands. This academy's role is to offer Faculty Development Programmes in standardized courses and emerging areas of Electronics, Information Communication Technologies, training & consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities.

About the FDP:

The Faculty Development Programme will help to disseminate the knowledge in the domain of AI and Machine learning with python. It empowers the participants to understand how AI can be used to innovate and improve the business process. Machine Learning is a fast-growing field of Artificial Intelligence concerned with the study and design of computer algorithms for learning good representations of data, at multiple levels of abstraction. Since data is overwhelming, organizations are struggling to extract the powerful insights they need to make smarter business decisions. The participants will be trained with hands-on approach in order to have an in-depth insight into the domain of AI & ML and expose them to Feasibility & future scope

Major Course Contents:

- 1. Introduction to Machine Learning and Image Processing
- 2. Phases of Image Processing
- ${\bf 3.} \ \ {\bf Research \ in \ Machine \ Learning \ and \ Applications}$
- 4. Machine Learning with Feature Representation
- 5. Feature Selection and Sparse Representation
- Machine Learning Basics Linear Regression, Perceptron's, Multilayer Perceptron's, Stochastic Gradient Descent, Backpropagation
- 7. Basics of Python
- 8. Decision tress, Naive Bayesian Classification
- 9. KNN, Unsupervised Learning Methods, K-Means
- 10. Dimensionality Reduction Methods, PCA
- 11.Computer Vision Applications: Image Classification,
 Object Recognition and detection
- 12. Recommendation systems applications
- 13. Natural Language Processing (NLP) Applications
- 14.Current Research Latest Architectures, Applications and Hands on Sessions and supervised and unsupervised Learning Methods

Faculty conducting this programme:

The programme will be conducted by the faculty members from NIT Warangal; Academicians in the concerned field from IITs/NITs/IIITs are invited to deliver lectures in the programme. Speakers from industries are also expected to deliver as part of the course.

Registration Fee Particulars:

Faculty and Research Scholars	Rs.750/-
Industry Participants	Rs.2250/-

Participants need to pay the Registration Fee Online using the following details

(Deemed-to-be University under Section 3 of the UGC Act.

Online Transfer Details

Account Name: Electronics & ICT Academy NITW

Account No: **62423775910**

IFSC: **SBIN0020149**

Bank and Branch: State Bank of India, NIT

(REC) Warangal

How to apply:

Participants are required to fill the online registration form by clicking on the following link

https://forms.gle/y9hbeycmBKcHcaEz6

Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 60 (sixty). Additionally, 10 participants from industry are allowed to participate. The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the DD will be sent back. Candidates will be issued satisfactory certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

Important Dates:

Last date (Application & DD)	09.07.2022
Selection List by E- mail	10.07.2022
Duration	11.07.2022 to 20.07.2022

About NIT Warangal:

National Institute of Technology, Warangal is the first among 17 RECs setup as joint venture of the Government of India and the state government. Over the years the college has established itself as a premier Institute imparting technical education of a very high standard leading to the B.Tech degrees in various branches of engineering, M.Tech. and Ph.D programmes in various specializations. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

About FST & 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. 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). Faculty of Science & Technology (IcfaiTech) 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. Innovative methods of teaching, cutting-edge curriculum, workshops, and internships further broaden our students' intellectual and global outlook.



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1. Na	me:
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6.	
	Reference No:
	Amount:
	Bank :

- 7. Address for Correspondence:
- 8. Educational Qualification:
- 9. Subjects taught so far:

Date:

- 10. No. of refresher courses/workshops attended:
- 11. Experience (in years):

Teaching: Research:

Industry:

12. Do you belong to SC/ST: YES /NO (If yes, please specify and attach a copy of caste certificate to claim the concession)

Declaration

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the Coordinator in case, I am unable to attend the course.

Date Signature of the Applicant

SPONSORSHIP CERTIFICATE

Signature of Head of Institution (with seal)

Address for correspondence

Post your application form

Dr. Anjanna Matta

Coordinator, Department of Mathematics, Faculty of Science & Technology (IcfaiTech) ICFAI Foundation for Higher Education, Hyderabad, Telangana, INDIA-500075

It is requested to all the delegates, after completion of application form, all the payment details, screenshot of the payment and scanned application form has to be uploaded in the following online registration link.

Registration Link:

For more details about Electronics & ICT Academy, NIT, Warangal, please visit:

https://nitw.ac.in/eict

For more enquiries please contact:

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Department of Mathematics

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fdp.eict@gmail.com

Coordinators

Dr. M. Srinivas

Ph.D. (IITH), Post-Doc (Academia Sinica, Taiwan and ETS, Canada) Computer Science and Engineering NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL – 506 004 (Telangana State) Email: msv@nitw.ac.in Ph. No: 08897064421

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