

ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON Machine Learning and Deep Learning Algorithms &



Applications (13th March – 22nd March 2024) Organised by Electronics & ICT Academy, NIT Warangal in association with NIT Warangal Jointly with IIITDM Kurnool (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 DL and Machine learning with python for Medical Applications. It empowers the participants to understand how ML & DL can be used to innovate and improve the Medical related applications. Deep 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 ML& DL and expose them to Feasibility & future scope

Major Course Contents:

- 1. Introduction to Artificial Intelligence, Machine Learning and Deep Learning
- 2. Research in Machine Learning, Deep Learning and Applications
- 3. Regression Models
- 4. Perceptron's, Multilayer Perceptron's, Stochastic Gradient Descent, Backpropagation
- 5. Basics of Python
- 6. Decision tress, Unsupervised Learning Methods, K-Means
- 7. Dimensionality Reduction Methods, PCA
- 8. Support Vector Machine
- 9. Introduction to Deep Learning
- 10. CNN models and types
- 11. RNN, LSTM and BiLSTM
- 12. Applications
- 13. Object Detection and Segmentation

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/Industry Personnel Rs.1000/ Participants need to pay the Registration Fee Online using the following details 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: <u>https://docs.google.com/forms/d/e/1FAIpQLScFDV5IpOvtjGCzaQfa8zJ3WljUMqden_al-GLJeyrU7eWHcg/viewform?usp=sharing</u>

Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 50 (fifty). 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)	27.2.2024
Selection List by E- mail	28.2.2024
Duration	13.3.2024 to 22.3.2024 Time: 2:00pm to 4:00pm and 6:00pm to 8:00pm

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 IITDM Kurnool:

Indian Institute of Information Technology, Design & Manufacturing, Kurnool (IIITDMK) was announced in 2014 after receiving the assent of President of India to the Institutes of Information Technology Act, 2014, and its subsequent publication in the Gazette of India, Extraordinary, Part- II, Section I, on December 08, 2014. The institute was announced by Government of India to give effect to its obligation under the Andhra Pradesh reorganization act 2014. IIITDM Kurnool is fully funded by Ministry of Education.

Coordinators

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