

# ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON

ML: Theory and Applications (2<sup>nd</sup> - 13<sup>th</sup> December 2024)

Organized by



In Association With

Department of EE, International Institute of Information Technology (IIIT) Bhubaneswar Sponsored by Ministry of Electronics and Information Technology (MeitY), GoI



#### Preamble:

"Electronics & ICT Academy – Phase II" was set up at NIT Warangal with financial assistance from Meity, GoI. 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 FDP titled "ML: Theory and Applications " focuses on integrating academic research with industry needs in Machine learning. It aims to explore practical ML applications across various sectors, emphasizing how academic insights can solve real-world industry challenges. The program would likely cover collaboration models, case studies of ML deployment in industry, and methods to translate cutting-edge ML research into scalable industry solutions. It also aims to build bridges between researchers and practitioners, fostering innovation and practical ML developments.

#### **Major Course Content:**

- Introduction to ML
- Representation of Patterns in ML
- Distance and Similarity Measures in ML
- Feature Extraction, Feature Selection, Dimensionality Reduction
- Supervised Learning: Regression and Classification
- Probabilistic Classifiers: Bayes Classifier, Hidden Markov Models
- Decision Trees and Support Vector Machine
- Unsupervised Learning: Clustering
- Deep Learning

### **Advanced ML and Applications:**

- Augmented Reality Research Potential Powered by Deep Learning
- Swarm Intelligence in Optimization and ML
- ML Application for Computer Vision: A Visual Surveillance Approach
- Cardiovascular Disease Detection using ML and DL
- Decentralized ML
- Analysis of Fault in Power System by ML
- Recommendation Systems
- Future Trends in ML for Industry

## **Faculty Conducting This Programme:**

The programme will be conducted by faculty members from NIT Warangal; academicians in the concerned field from IITs/NITs/IIITs are invited to deliver lectures. 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:

#### **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/sRotssp7sFFQmKDC6

#### **Selection Criteria:**

Selection will be done based on first-come-first-serve basis to a maximum number of 50 (fifty). Candidates will be issued satisfactory certificates on successful completion of the course.

### **Important Dates:**

Last date (Application)	27.11.2024
Selection List by E- mail	29.11.2024
Duration	2.12.2024 to 13.12.2024

### **About NIT Warangal:**

National Institute of Technology, Warangal, is the first among 17 RECs set up as a 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 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 IIIT Bhubaneswar:**

The Government of Odisha established the International Institute of Information Technology, Bhubaneswar in 2006. It is designed to be a premier institute of Information Technology and related areas. The Institute has been converted into a unitary university by the Government of Odisha on 20th Jan 2014. IIIT Bhubaneswar offers undergraduate, postgraduate, and doctoral programs, emphasizing hands-on learning, interdisciplinary collaboration, and industry partnerships.

Dr. Tapan Kumar Sahoo	Dr. Debani Prasad Mishra
Assistant Professor	Assistant Professor
Department of CSE	Department of EE
NIT Warangal	IIIT Bhubaneswar
Telangana - 506 004	Odisha-751003
Email: tapan@nitw.ac.in	Email: <u>debani@iiit-bh.ac.in</u>
Ph. No.: +91 7978180153	Ph. No: +91 8895490012