



ONLINE FACULTY DEVELOPMENT PROGRAMME (FDP) ON Machine Learning and its Applications with Python (17th January– 26th January 2022)



Organised by
Electronics & ICT Academy, NIT Warangal
in association with

Vignan's Foundation for Science, Technology & Research
(Deemed to be University), Guntur

(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 Machine learning. It empowers the participants to understand how Machine Learning 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. The participants will be trained with hands-on approach in order to have an in-depth insight into the domain of Machine Learning and expose them to its Applications.

Major Course Contents:

- Introduction: What is Machine Learning, Real-life examples and Applications, Machine Learning vs. Data Science vs. AI, Machine Learning types, Generics of ML approaches.
- Python Essentials: Installation, Python Editors & IDE's (Anaconda, Spyder, Jupyter), Primitive Data types, lists, tuples, dictionaries, strings, Data manipulation tools (Operators, Functions, Packages, Loops, arrays, etc.), Importing Data from various sources (CSV, txt, etc.) , Exporting Data to various formats.
- Probability and Statistics for Data Science: Basic probability theory, Random variables, Probability distributions, Markov models, Bayesian learning, Applications.
- Regression: Univariate linear regression, Multivariate linear regression, Polynomial Regression, Applications.
- Classification: Logistic regression, SVM, Multi-class SVM, Decision trees, K-NN, Applications.
- Ensemble Approaches: Bagging, Random Forests. Boosting: Adaboost, Gradient boosting, Applications.
- Optimization: Gradient descent, Stochastic gradient descent, Batch gradient descent.
- Clustering: Different clustering approaches and applications.
- Feature Engineering: Feature Scaling, Feature Selection: Filter methods, Wrapper methods, embedded methods.
- Dimensionality Reduction: PCA, LDA, MDA, ICA.
- Reinforcement learning: ML applications in Computer Vision, Recommendation Systems
- Hands-on to the majority of the topics using Python, Take-home project.

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

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/BWCWkzpxcAfBuSwS9>

Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 100 (hundred).The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the DD/online payment will be sent back. Candidates will be issued participation certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

Important Dates:

Last date (Application & DD)	15.01.2022
Selection List by E- mail	16.01.2022
Duration	17.01.2022 to 26.01.2022
Time	3:00 to 7:00 PM

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 VFSTR UNIVERSITY:

VFSTR University, the flagship institution of Vignan Group of Educational Institutions, is a NAAC 'A+' accredited institution, ranked 97 by National Institutional Ranking Framework of MHRD, Government of India. Located in serene environs of Vadlamudi on the Guntur-Tenali highway, the university with its sprawling play grounds, campus greenery and imposing academic blocks, is a virtual haven of rural quiet and idyllic beauty. Since its inception, the institution has been striving to promote high standards in technical education to aid in the career building of many students who step into its portals. Through diverse programs and updated curriculum and by imparting industry exposure and hands-on skills, the university trains its students into competitive and global professionals, imbued with ethical consciousness and social awareness. The sophisticated laboratories and research centres make it one of the most preferred institutions for the aspirants of engineering studies.



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1. Name :

2. Designation :

3. Institution :

4. Email :

5. Mobile No :

6.

Reference No:
Amount:
Bank :
Date:

7. Address for Correspondence:

8. Educational Qualification:

9. Subjects taught so far:

10. No. of refresher courses/workshops attended:

11. Experience (in years):

Teaching: Research: Industry:

12. Do you belong to SC/ST : YES /NO

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

Dr./Mr./Ms. is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on **“Machine Learning and its Application with Python”**, sponsored by **Electronics & ICT Academy** during **17th January – 26th January, 2022** at Vignan's Foundation for Science, Technology & Research, Guntur.

Signature of Head of Institution
(with seal)

Address for correspondence

Post your application form

Mr. DS Bhupal Naik

Department of Computer Science and Engineering
Vignan's Foundation for Science, Technology & Research, Guntur, Andhra Pradesh,
INDIA-522213.

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:

<https://forms.gle/BWCWkzpxcAfBuSwS9>

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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Coordinators

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