

## Centre for Continuing Education of NIT Warangal:

The Centre for Continuing Education of NIT Warangal organizes Continuing Education Programmes and Workshops in the frontier areas of Science, Engineering, Technology, Management, Humanities, Social Science and socially relevant themes on a self-financing basis in three different modes: (i) At NIT Warangal by NIT Warangal (ii) At NIT Warangal in collaboration with other Organizations (iii) By NIT Warangal Faculty at the Host Organization/Institute.

### About NIT Warangal:

National Institute of Technology Warangal, formerly known as Regional Engineering College, was established in 1959. Over the years, it has developed into a premier institute of higher learning and is ranked among the top technical education institutions in India. There are 13 Departments, offering eight undergraduate and 32 post-graduate programs besides doctoral programmes. About 5000 students across the country and about 500 international students study in the campus. It is a fully residential campus sprawling over 250 acres with excellent infrastructure, state of the art library, seminar halls, guest houses, and laboratories.



### Brief Profile of the Department of CS & E:

The department of Computer Science & Engineering was established in the year 1991. The department offers high-quality undergraduate, postgraduate and doctoral programs. The department has a team of well-experienced faculty, graduated from IIT's, NIT's, Central Universities, and other premier Institutes of higher learning. The department provides state-of-art research facilities to generate knowledge and develop technologies in the thrust areas of Computer Science and Engineering.

### Highlights of the Course:

- This short term course will be conducted three hours a day with no overlap to the regular office hours.
- The sessions will begin in the evening time, possibly after 5pm.
- Majority topics will be covered with hands-on using Python.

**For any query regarding this course, please contact the Coordinators.**

#### Dr. Venkateswara Rao Kagita

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## Center for Continuing Education

## Faculty Development Programme on Machine Learning with Python

**12<sup>th</sup> – 16<sup>th</sup> April, 2021**

### Call for Registration and Participation

#### Coordinators

**Dr. Venkateswara Rao Kagita  
Dr. Balaprakasa Rao Killi**

#### Organized by

**Department of Computer Science and Engineering, NIT Warangal**

**In association with the  
Center for Continuing Education**



## Overview of the Short term course:

This FDP on Machine Learning with Python aimed at imparting knowledge and training on the fundamentals of machine learning with different aspects and applications. The main objective is to make participants familiar with emerging field of machine learning.

## Objectives:

- The program will positively impact the perceived ability to understand recent advances in machine learning.
- Participants will be able to demonstrate knowledge of machine learning techniques to solve real world problems

## Course Content:

- ✚ Introduction:  
What is Machine Learning, Real-life examples and Applications, Machine Learning vs. Data Science vs. AI, Machine Learning types, Generics of machine learning approaches.
- ✚ Regression  
Univariate linear regression, multivariate linear regression, Polynomial Regression.
- ✚ Classification  
Logistic regression, SVM, Multi-class SVM, Decision trees.
- ✚ Ensemble Approaches  
Bagging, Random Forests, Boosting: Adaboost, Gradient boosting.

- ✚ Optimization  
Gradient descent, Stochastic gradient descent, Batch gradient descent.
- ✚ Clustering  
Different clustering approaches and applications.
- ✚ Feature Engineering  
Feature Scaling, Feature Selection and Dimensionality Reduction
- ✚ Reinforcement Learning:  
Markov Decision Process, Planning, Estimation, Control and Applications.
- ✚ Hands-on to the majority of the topics using Python.

## Resource Persons:

Eminent faculty from IITs, Central Universities, Industry and Senior Faculty from different departments of NIT Warangal, will deliver lectures and conduct hands on sessions.

**Registration is open to:** Faculty members in all disciplines of Engineering, Sciences, Mathematics, Life sciences, Management, Post Doctoral Fellows, Research Scholars, PG students, UG students who have an aptitude to work in the areas of data sciences and machine learning .

**How to Apply:** Eligible candidates may apply by filling the following google form with payment proof on or before 10<sup>th</sup> April, 2021.

<https://forms.gle/fAh58B5uJPfmGTAV9>

## Registration fee:

Category	Amount
Faculty, Post doctoral fellows , Research Scholars, PG students, UG students	Rs. 500 /-
Industry participants	Rs. 1000/-

The registration fee may be remitted Online through NEFT, Quick transfer, Gpay, PhonePe, Paytm, or any other UPI to the Bank account given below and upload the proof of remittance in the google form.

**Important Note:** Please enter course code MLP in remarks while doing transaction. This is mandatory.

Account Number	62403680215 (Savings Account)
Account Name	Center for Continuing Education NITW
Bank Name:	State Bank of India (SBI)
Branch:	NIT Warangal
IFSC Code:	SBIN0020149

## Confirmation of Participation:

On receipt of the google form and fee remittance receipt, participants will be sent confirmation of their participation through email by 04<sup>th</sup> December, 2020. As the programme is conducted online with hands-on sessions, the number of participants in the workshop is limited to 100. **Candidates are advised to register early to avoid disappointment.**