

## 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 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 programmes 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.

### Brief Profile of the Department of Mathematics:

The Department of Mathematics was established in 1959 and has always shared the vision of the institute in striving for excellence in teaching and research activities. Over the years, the department has evolved as one that provides excellent teaching and research in Applied Mathematical Sciences.

### 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 short term course, please contact the Coordinators.**

**Dr. M. Sandhya,**

*Assistant Professor*, Mobile: 9394468554  
email: [msandhya@nitw.ac.in](mailto:msandhya@nitw.ac.in)  
Department of CSE

**Dr. Y. Sreenivasa Rao,**

*Assistant Professor*, Mobile: 9494776866  
email: [ysr@nitw.ac.in](mailto:ysr@nitw.ac.in)  
Department of Mathematics



## Center for Continuing Education

### Online Short Term Course on “Data Analytics with Python”

8<sup>th</sup> – 12<sup>th</sup> February, 2021

### Call for Registration and Participation

#### Coordinators

**Dr. M. Sandhya**  
**Dr. Y. Sreenivasa Rao**

**Organized by**  
**Department of CSE and**  
**Department of Mathematics**

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



## Overview of the Short term course:

This short-term course facilitates upgrading knowledge, skill in the most advanced areas of Data Analytics.

### Objectives:

- The program will positively impact the perceived ability to understand recent advances in data analytics
- Participants will be able to demonstrate knowledge of machine learning techniques to solve real world problems in data science, and various other applications.

### Course Content:

- ✚ Introduction  
What is Data Analytics Real-life examples and Applications, Machine Learning vs. Data Science vs. AI, Machine Learning.
- ✚ Python Essentials  
Primitive Data types, lists, tuples, dictionaries, strings, Data manipulation tools (Operators, Functions, Packages, control structures, Loops, arrays), Importing Data from various sources (CSV, txt, excel), Exporting Data to various formats.
- ✚ Regression  
Linear Regression, Polynomial Regression
- ✚ Classification  
SVM, Multi-class SVM, Decision trees, K-Nearest Neighbors.
- ✚ Ensemble Learning

- ✚ Clustering  
K-means, Hierarchical and other clustering approaches
- ✚ Recommendation Systems  
Introduction, Types of recommender systems, Content-based, Collaborative filtering.
- ✚ Muti-Criteria Decision Making using  
AHP, Vikor, Topsis
- ✚ 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 analytics.

### Benefits:

- ✚ Participants will get an e-certificate upon successful completion of the course.
- ✚ Course material, session recordings will be shared with participants with the consent of the speaker.

**How to Apply:** Eligible candidates may apply by filling the following google form with payment proof on or before 25<sup>th</sup> January, 2021.

<https://forms.gle/n2EwXXEbHeh7Zj8A6>

### 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 **CSMDA** in remarks while doing transaction. This is mandatory.

<b>Account Number</b>	62403680215 (Current Account)
<b>Account Name</b>	Center for Continuing Education NITW
<b>Bank Name:</b>	State Bank of India (SBI)
<b>Branch:</b>	NIT Warangal
<b>IFSC Code:</b>	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 26<sup>th</sup> January, 2021. 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.**