



# NATIONAL INSTITUTE OF TECHNOLOGY WARANGAL

Center for Continuing Education & Department of Computer Science & Engg

**ONLINE SHORT TERM COURSE ON**

## Advanced Artificial Intelligence and Machine Learning Using Python

**20<sup>th</sup> December 2021- 29<sup>th</sup> December 2021**

### 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 house and laboratory.



### About Center for Continuing Education

The Center for Continuing Education NIT Warangal organizes FDPs/Training programmes/Seminars/Workshops etc., 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 (ii) At NIT Warangal in collaboration with other organizations/Engineering Colleges / Institutes (iii) By NIT Warangal Faculty at the Host Organization/Institute.

### About Department of Computer Science & Engg

The Department of Computer Science and Engineering (CSE) offers B.Tech course in CSE, M.Tech courses in CSE, Information Security (IS) and Master of Computer Applications (MCA). The Department has experienced faculty with good publications and well-established laboratories. The Department has liaison with reputed industries and R&D organizations like Microsoft, IBM, Oracle, Accenture, Infosys, TCS, EMC2, C-DAC, Motorola, NIC, Sun Micro Systems, SPSS and tie up with IISc in certain areas. Department conducts various sponsored programmes like GIAN, International and national conferences throughout the year.

### Course Content

**Introduction:** Getting Started, Keywords and Identifiers, Python Operators, Python Namespace, Python I/O and import, Statements & Comments, Python Variables, Python Datatypes, Python Type Conversion,

**Python Flow Control:** Python if...else, Python for Loop, Python while Loop, Python break and continue, Python Pass

**Python Functions:** Python Functions, Function Argument, Python Recursion, Anonymous Function, Global, Local and Nonlocal, Python Global Keyword, Python Modules, Python Package.

**Python Files:** Python File Operation, Python Directory, Python Exception, Python Exception Handling, Python User-defined Exception

**Python Object & Class:-** Python OOP, Python Class, Python Inheritance, Python Operator Overloading.

**Python Advanced Topics:-** Python Iterator, Python Generator, Python Closure, Python Decorators, Python Property, Python Reg Ex, Python Example.

ANN, Back Propagation, RNN, Types of RNN, Deep RNN and Bidirectional LSTM.

**Softwares:** Jupiter Notebooks, Anaconda, Tensorflow, CUDA.

**Packages:** Pandas, Numpy, and Matplotlib.

**Ensemble Method:** Bagging, boosting, gradient boosting, random forest, Xgboost, GRU and Auto encoder and Introduction to AutoML, Light AutoML, Google Brains: Ventilator pressure prediction, Regression through gradient descent, Particle swarm optimization, Teaching Learning based Optimization, Optimization through meta heuristic techniques.

**Project:** CNN and its applications in Medical Image Processing and natural language processing, Text classification using Google Bert Model. Future Credit card customer prediction using Xgboost and light gbm, Multi Language Machine Translation using NLP, Emotion Recognition using NLP Techniques.

### Course Objectives:-

- Upon the completion of the training programme the participants/trainee can understand/Gain knowledge in solving the real world problems in AI, ML and DL.

### Resource Persons:-

The Sessions will be handled by the experts From IITs/NITs/ Industries.

### How to Apply

Interested candidates can apply online by clicking below link

<https://forms.gle/DdJxfh134Mav9L7N6>

Participants details need to be filled and payment details uploaded by using above link in Google Forms on or before 19<sup>th</sup> December, 2021.

**Registration Deadline: 19<sup>th</sup> December 2021.**

### Who should Attend?

The Programme is open to all Faculty/Research Scholars/ Industry Professionals/MCA/MBA/Degree/Polytechnic and other eligible students can register the course.

**Timings: Evening: 4.30.PM to 7.30.PM.**

### Registration Fees:

**Faculty: 1000 (Thousand only).**

**Industry Professionals: 2000 (Two Thousand only).**

**For Foreigner:- 50 USD Dollars.**

### Bank Account Details

<b>Account Name:</b>	<b>CCE NITW</b>
<b>BANK NAME :</b>	<b>SBI</b>
<b>ACCOUNT NO :</b>	<b>62403680215</b>
<b>IFSC CODE :</b>	<b>SBIN0020149</b>
<b>BRANCH :</b>	<b>NIT WARANGAL</b>

**Confirmation mails will be sent two days before the Programme. Once Paid/Registered Participation is Confirmed.**

The interested individuals may register on the FCFS basis the seats are limited to 250 only.

**E-Certificate:** Participants will get e-certificate upon completion of the course.

### Address for Correspondence

**Dr. Raju Bhukya, Assistant Professor,**

**Incharge CCE & Coordinator,**

**Department of CSE, NIT Warangal,**

**Mobile: 9700553922, 8332969733.**

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**Any Further queries, please contact the Coordinator.**