

# Online Summer Training Program

on

## Data Analytics and Machine Learning using Python

12 August-25 August, 2020

under the aegis of

Electronics & ICT Academy

IIT Roorkee



Supported by

Ministry of Electronics & Information Technology



Government of India

Experts from Academia/Industry

Prof. R. Balasubramanian, IIT Roorkee

Prof. Partha Partim Roy, IIT Roorkee

Prof. Raksha Sharma, IIT Roorkee

Dr. Abhishek Das, Research Scientist,

Facebook AI Research, USA, Dr. Sachin

Pawar from Tata R&D Center, Pune

Mr. Bipul Shahi from Diginique TechLabs

Principal Investigator

Prof. Sanjeev Manhas, IIT Roorkee

Certificates to participants by E&ICT Academy IIT Roorkee



Class will be delivered through online platform

### Why Machine Learning ?

In recent years, Data Analytics and Machine learning has emerged as powerful techniques for solving problems involving huge loads of data. Machine Learning algorithms help towards taking a better decision. Machine learning provides algorithms and tools that are useful for solving classification and regression tasks.

- The whole data analysis process is a cycle of trial and error: design features and clean and normalise the data, reduce input dimensionality

### Objective of the course

- Provide foundation of Python scripting and its principles
- Design and implement of real-world inspired ML algorithms applications.
- Boost your career prospects through innovative and independent learning
- Project work with real life problems (Hand written optical image recognition and Exploratory analysis on Covid 19)

### Program Features

- 40 hrs of live instructor-led classes
- Lectures from IIT Roorkee, Hands-on sessions from industry experts
- Career guidance sessions from the experts
- Session on incubation and entrepreneurship
- Expert talks from Facebook AI Research, USA and TATA R&D Center, Pune
- 3 hrs of doubt clearing sessions on weekend
- Access to learning material and video lectures
- Certificates by E&ICT Academy IIT Roorkee

### Focus Areas

- Introduction to packages in Python
- Tuples, Set, Dictionaries & Functions
- Numpy, Scipy, Pandas, EDA
- Supervised Machine Learning
- Statistics, Hypothesis Testing, Distributions
- Linear Regression, Logistic Regression
- Decision Tree, Random Forest
- Support Vector Machines
- Heuristic Approaches of ML
- Projects and Assignments

### Prerequisites

- No experience is required, but fundamental knowledge of any programming language would be helpful.

### Registration Link

<http://tiny.cc/od5gsz>

### Registration Fee

Fees: ₹ 8000/participant, non refundable (Applicable for all)

Note: Refund will be done in case of course cancellation only, with in 20 working days

### How to make payment

<https://eict.iitr.ac.in/Paymentdetails.html>

Conference Code: EICTIITR-SUM04

### Course Coordinators

- Prof. R. Balasubramanian, CSE Department, IIT Roorkee
- Prof. Raksha Sharma, CSE Department, IIT Roorkee
- Prof. Sanjeev Manhas, IIT Roorkee, ECE Department, IIT Roorkee

### Reach Us:

- Ph.: +91-7409146082, +91-9149130233
- Email: [eict@iitr.ac.in](mailto:eict@iitr.ac.in), [eictiitr@gmail.com](mailto:eictiitr@gmail.com)