

# Electronics & ICT Academy IIT Roorkee

Faculty Development Program  
on

## "Data Analytics Techniques with Python"



*In Association with*

**Shri Mata Vaishno Devi University**

**Sep. 04, 2018- Sep. 08, 2018**

**Experts from Industry**

**Mr. Sriraman  
Vowel Softech**

**Supported by**

Ministry of Electronics & Information Technology  
Government of India



**Shri Mata Vaishno Devi University,  
Katra, Jammu and Kashmir**

## Why Data Analytics Techniques with Python?

Data analysis has become an essential part of everyday life and emerged as a critical component of modern business intelligence in recent years. Data scientists have a number of options to analyze data using statistical methods. One of the most convenient and powerful methods is to use the Python programming language. This course will help you to learn how to tackle data analysis problems using the Python. Participants will be able to understand how data is created, stored, accessed. What you learn in this course will give you a strong foundation in all the areas that support analytics. Participants will also learn how to compute various statistical measures, create meaningful data visualizations, Python models to predict expected future outcomes.

### Objective of the Course

- Introduction of data analytics, machine learning and its real-life applications.
- Understanding of statistics and Python programming which will help the participants to carry out various analytical studies.

### Benefits and Outcomes of the Course

- Learn the importance of data.
- Learn the various aspects of data handling and how information can be extracted from data.
- Carry out predictions – how to predict, how to analyse predicted values, discuss the importance of variables in a dataset.
- Industries and domain where analytics are used extensively.
- Guide/Mentor the students to seek job opportunities in data analyst fields.

## Focus Areas

- Introduction to Python, Variables Numbers, Strings, Lists, Tuples, Dictionary, Sets, Operators, Functions and Regular Expressions.
- Working with files, Numpy, Scipy and Pandas.
- Working with data, Splitting data, Data analytics workflow, Machine learning algorithms, Linear regression, Logistic regression, Decision Tree / Random Forest, Support Vector Machine, kNN, ML algorithms, Other aspects of data analytics.
- Assignment/Mini project based on data analytics.

## Program Features

- The program is split into lectures and labs/hands-on sessions.
- Hands-on experience on basic and advanced-level topics.
- Interaction & learning with experts from academia & industry.
- Certificates to participants by E&ICT Academy IIT Roorkee.



## Coordinators

**IIT Roorkee**

**Dr. Sanjeev Manhas, PI, E&ICT Academy**

**Shri Mata Vaishno Devi University**

**Dr. Baijnath Kaushik (Head CS Dept)**

## Who Can Attend ?

Program is open to faculty members/research scholars/PG students from colleges/universities, and industry personnel working in the concerned/allied discipline.

## Registration Fee

Faculty members: ₹ 2,500/-

Research scholars: ₹ 2,500/-

Persons from Industry: ₹ 3,000/-

## Payment Details

DD in favor of "Dean SRIC IIT Roorkee" payable at Roorkee  
"OR"

Make Online Payment by NEFT/RTGS on given detail

Account Name: Research Project, IIT Roorkee

Account Number: 33012172097

IFSC code: SBIN0001069

## How to Apply

Step 1: Make Payment

Step 2: Participants may fill registration form through Academy website (<http://eict.iitr.ac.in>).  
OR

Step 2: Send a duly filled-in registration form along with Demand Draft to Academy address.

Mr. Prateek Sharma, EICT Academy, ECE Department, IIT Roorkee-247667

## Important Dates



**Last Date For  
Registration :  
31st August 2018**



## EICT Academy IITR

Electronics and ICT Academy (E&ICT) at IIT Roorkee (funded by Ministry of Electronics and Information Technology) aims to enrich and upgrade teaching and research competences of engineering faculties of institutes/colleges by conducting courses and workshops in fundamentals as well as emerging areas of E&ICT and enabled areas. The programs are conducted by well-known industry partners, resource persons from leading academia and experts from renowned R&D organizations.



## Activities of the Academy

- Specialized training on basic and advanced level topics with hands-on experience in the emerging areas of Electronics & ICT.
- Setup the activity centers to conduct FDPs locally at institutes/colleges.
- Curriculum development for the industry.
- Continuing Education Programme for students/working professionals.
- Design, develop and delivery of specialized modules for specific research areas in industry.

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Sep. 04, 2018- Sep. 08, 2018



## REGISTRATION FORM

Applicant Name \_\_\_\_\_

Gender: \_\_\_\_\_

Category (GEN/OBC/SC/ST): \_\_\_\_\_

Designation: \_\_\_\_\_

Name and Address of the  
Organizatio/Institute: \_\_\_\_\_

City/Town: \_\_\_\_\_

Email: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Do you need Accommodation?  
(Yes/No): \_\_\_\_\_

DD Number: \_\_\_\_\_

Date: \_\_\_\_\_

Issuing Bank: \_\_\_\_\_

Payable at: \_\_\_\_\_

Signature of the Applicant

## Contact Us

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