# INDIAN STATISTICAL INSTITUTE
## SQC & OR Unit
### HYDERABAD

announces

## Foundation Course

on

## Machine Learning using Python

**Ph-I : 15 – 17 May 2020**
**&**
**Ph-II : 29 – 31 May 2020**

### Venue

SQC & OR UNIT

INDIAN STATISTICAL INSTITUTE

Road No.8, Habsiguda

Hyderabad – 500 007

Phone:  040 2715 3984
        040 2717 1906                    FAX : 040 2717 3602
        040 2717 9402

e-mail : daisihyd@gmail.com

Website : www.isihyd.ac.in

## Program Objectives

To acquaint and provide hands-on experience to participants on various Statistical and Machine Learning Techniques using Python.

## Program Benefits

Participants will acquire knowledge on
- Data summarization, visualization, aggregation and preprocessing
- Application of unsupervised learning techniques
- Application of supervised (predictive modeling) learning techniques
- Evaluating model significance, accuracy, adequacy and generalizability
- Additionally, gain hands-on experience on the usage of open-source package Python

## Eligibility

Any science or engineering graduate working in the analytics field or aspiring to get into analytics can participate in the program. The knowledge of a programming language is desirable but not essential.

## Course Content

1. Introduction to Analytics
2. Introduction to Python
3. Data Summarization, Visualization & Aggregation Techniques
4. Data Preprocessing Techniques
5. Tests of Hypotheses

6. Factor Analysis
7. Cluster Analysis
8. Linear Regression
9. Classification and Regression Tree (CART)
10. Random Forest

11. Bagging
12. Naïve Bayes Classifier
13. K-Nearest Neighbor
14. Support Vector Machine (SVM)
15. Model Parameter Tuning Techniques

- *Every participant shall carry laptop-computer preloaded with Python 3.8.*

## Certification criteria

Successful Completion Certificate will be issued to the candidates securing Qualifying Marks in the TEST conducted on the last day.

## Venue & Timings

Lecture sessions and Practical sessions shall be held during Ph-I : 15 – 17 May 2020 and Ph-II : 29 – 31 May 2020 at the Seminar Hall, Indian Statistical Institute during 09.30 a.m. to 05.30 p.m.

## Faculty

Senior Specialists from Hyderabad and Bengaluru branches of Indian Statistical Institute.

## Participation Fee

Rs. 20,000 + GST@18% (i.e., Rs.23,600/- per participant inclusive of course kit, lunch & refreshments).

*Payment Options:*

i) *Demand Draft drawn in favour of INDIAN STATISTICAL INSTITUTE payable at Hyderabad.*
ii) *Online Transfer: Syndicate Bank, J S N Colony Branch, Habsiguda, Hyderabad. Name of Accountholder : Indian Statistical Institute, Current A/c No : 30451010000079, IFSC Code : SYNB0003045*

*Participants making payment through 'Online transfer' shall first verify the availability of seats, and make payment only after confirmation from us.*

## Last date

Last date for submission of Registration form : 20 April 2020 (Subject to availability of seats). Registration is on first-come-first-served basis.

| Program Director | Program Facilitator |
|---|---|
| Dr. S M Subhani | Mr. K Venkata Ramana |
| Mobile : 98493 23071 | Mobile : 93465 60442 |

**INDIAN STATISTICAL INSTITUTE**

The INDIAN STATISTICAL INSTITUTE founded by Prof. P C Mahalanobis, FRS, is an Institution of National Importance, declared by Act of Parliament and funded by Government of India. It is an Institute of academic excellence offering educational courses at Graduate, Post graduate and Research levels. The scientific activities of the Institute are carried out through different Divisions.

**Role of SQC & OR Division**

- The Pioneer and Leader in blending Statistical Theory with Practice.
- To disseminate the basic concepts and techniques of Quality Improvement through Training programs, Workshops and In-house programs.
- To render Training, Consultancy services to industries in SQC, Six Sigma (GB, BB & MBB), ISO 9001, ISO 14001, ISO 45001, IMS(ISO 9K/14K/45K), ISO/TS 16949 and related areas.
- To provide solutions to the problems pertaining to Business Decision Processes with the aid of Statistical and Operations Research methods.

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Foundation course on

# Machine Learning using Python

Ph-I : 15 – 17 May 2020 & Ph-II : 29 – 31 May 2020

## REGISTRATION FORM

Organization :

Contact Person :

Mailing Address :


Phone : (M)                    (O)                    (R)

e-mail :                              FAX :

Participant(s) details :

| S No. | Name | Designation & Department | e-mail | Mobile |
|-------|------|--------------------------|--------|--------|
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  |  |  |  |

*Note :  i)  Course Fee  per participant is   Rs.23,600/-  (which includes GST@18%.)*
*ii) Typed copy of this form may be used in case of more participants.*
*iii) Participants making payment through 'Online transfer' shall first verify the availability of seats, and make payment only after confirmation from us.*

Amount :            Online transaction reference No. :

Date:            DD No. :

Bank & Branch :

Signature :                        Date:

Please e-mail, post or FAX the filled in form addressed to the Program Director to our office address given above.