

INDIAN STATISTICAL INSTITUTE

announces Foundation Course on **Predictive Modeling using Python**

> Date: 27 – 30 November 2019 Duration: 4 days Location: Bangalore



Organized by: SQC & OR Unit, Indian Statistical Institute, Bangalore - 560 059, INDIA

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Program Objective

This program is designed for familiarizing and providing hands-on experience to participants on various statistical and machine learning techniques for predictive modeling using python

Program Benefits

The participants will acquire the knowledge required for

- Data summarization, visualization and aggregation
- Statistical techniques for decision making
- Supervised (predictive modeling) learning techniques
- Methods for model significance, accuracy, adequacy and generalizability checks
- 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 necessary.

The examination will be conducted at the end of the course and successful candidates will be issued the certificate.

Course Content

- Introduction
 - 1. Introduction to Predictive Modeling
 - 2. Introduction to Python
- Fundamentals of Statistical Decision Making
 - 1. Test of Hypothesis
 - 2. Normality Test
 - 3. Analysis of Variance
 - 4. Cross Tabulation and Chi Square Test
- Predictive Modeling Techniques
 - 1. Linear Regression
 - 2. Dummy Variable Regression
 - 3. Logistic Regression
 - 4. Classification and Regression Tree (CART)
 - 5. Random Forest
 - 6. Naïve Bayes Classifier
 - 7. K-Nearest Neighbor
 - 8. Support Vector Machine (SVM)

Course Fee

INR 20,000/- per participant (+18 % tax) (inclusive of course material, kit, lunch & snacks).

Seats are limited. Enrolment on the First-Come-First-Serve basis. Before making online course fee payment, kindly check the availability of seats.

Important Dates

Last date for submission of nominations: 25th November 2019

Duration: 4 days

Program dates: 27 – 30 November 2019

Timing: 9:30 am – 5:30 pm

Location: Bangalore

Contact: Program Director : PM-05,

SQC & OR Unit, Indian Statistical Institute,

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Indian Statistical Institute

- 1. Indian Statistical Institute is a unique institution devoted to the research, teaching and application of statistics, natural sciences and social sciences
- 2. It is declared by an Act of Parliament as an Institute of National Importance.
- 3. Over the years, the Institute has grown into a multi-disciplinary organization.
- 4. It functions as a University empowered to award degrees up to Ph.D.; as a Corporation undertaking large scale projects; as a Firm of Consultants to industries to improve Quality, Reliability & Efficiency and as a meeting place of Scientists, Economists & Literary figures from all parts of the world.

Role & Function of SQC & OR Division

- 1. The pioneer and leader in blending statistical theory with practice and institutionalizing the continuous improvement process into a sustaining system.
- 2. To strengthen the national economy through the continual search for excellence in Quality.
- 3. To disseminate the basic concepts and techniques for Quality Improvement by organizing Training Programs, Workshops and In-house Programs.
- 4. To develop highly skilled professionals capable of self-actualization.
- 5. To help industries in their efforts to cope up with the growing challenge of global competition through the implementation of the quality system based on ISO-9000 series, ISO-14000, QS-9000 standards, Six Sigma & World Class Manufacturing.
- 6. To continually develop and improve methodologies through applied research efforts to attain International Standards in services provided.