



INDIAN STATISTICAL INSTITUTE

announces

Online Course on

Business Analytics using R

04 – 27 November 2022
SQC & OR Unit, Bangalore



Organized by:

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Program Objective

This program is designed to equip professionals with the capabilities in extracting implicit, previously unknown and potentially useful knowledge from large datasets

Program Benefits

The participants will acquire the knowledge required for

- Extracting insights through data summarization, aggregation and visualization methods
- Pre-processing the data for analytics
- Decision-making using statistics
- Developing models using statistical and machine learning techniques
- Generating actionable insights using unsupervised learning techniques
- Hands-on experience in the usage of open source packages like R and R Studio

Eligibility

- Any science, commerce or engineering graduate can participate in the program
- The performance of the participants will be assessed through assignments
- Online examination will be conducted at the end of the course. Successful candidates will be issued the certificate

Course Content

Module	Topic
Module 1	Introduction to Analytics, Descriptive Statistics, Introduction to R and R Studio, Data Summarization and Aggregation Techniques
Module 2	Missing Value Handling, Data Merging and Appending, Data Scaling / Transformations
Module 3	Test of Hypothesis, Normality Test, Analysis of Variance, Cross Tabulation and Chi-Square Test
Module 4	Correlation, Multiple Linear Regression, Tackling of Multicollinearity, Dummy Variable Regression, Binary Logistic Regression
Module 5	Factor Analysis, Cluster Analysis, Market Basket Analysis
Module 6	Classification and Regression Tree, Bagging, Random Forest
Module 7	Naïve Bayes Classification, k Nearest Neighbor Method, Support Vector Machines

The course material and data sets will be shared with the participants. Training will be conducted through online classes. Additionally, class recordings will be shared with the participants

Course Fee

INR 18,000/- per participant (+18 % tax) (inclusive of course material).

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

Important Dates

Last date for submission of nominations: 02 November 2022

Duration: 7 Days

Dates: 4 – 5, 11 – 12 and 25 – 27 November 2022

Timings: 10:00 am to 5:00 pm

Contact: Program Director : BA-10,
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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 as a multi-disciplinary organization.
4. It functions as a University empowered to award degrees up to Ph.D.; as a Corporation in undertaking large-scale projects; as a Firm of Consultants to industries to improve Quality, Reliability & Efficiency and as a Meeting place for 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 sustainable system.
2. To strengthen the national economy through a 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 with the growing challenge of global competition through the implementation of quality systems 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.