



# INDIAN STATISTICAL INSTITUTE

announces

## Faculty Development Program on Data Science using R

**27 April 2022 – 28 May 2022**  
**SQC & OR Unit, Bangalore**



Organized by:

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## Program Objective

This program is designed to equip academic 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
- Hands on experience on the usage of open source packages like R and R Studio

## Eligibility

- Any science, commerce or engineering research scholars and faculties affiliated to colleges, universities and other academic institutes 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 and successful candidates will be issued the certificate

**Course Content**

Week	Topic
Week 1	Descriptive Statistics Introduction to R and R Studio Data Summarization and Aggregation Techniques
Week 2	Missing Value Handling, Data Merging and Appending Data Scaling / Transformations, Advanced Imputation, Feature Selection and Data Visualization Techniques
Week 3	Test of Hypothesis, Normality Test, Analysis of Variance, Cross Tabulation and Chi Square Test
Week 4	Correlation & Regression (Linear Regression, Dummy Variable Regression & Binary Logistic Regression)
Week 5	Classification and Regression Tree, Bagging and Random Forest

The course material and data sets will be shared with the participants. Training will be conducted in a hybrid mode consisting of video classes and weekend online classes

**Organizing Committee**

Name	Affiliation	Center/City
Boby John	Indian Statistical Institute	Bangalore
U H Acharya	Indian Statistical Institute	Bangalore
Ashok Sarkar	Indian Statistical Institute	Mumbai
Firoz Ahmad	Indian Institute of Science	Bangalore
Rajesh Krishnan	Bosch Global Software Technology	Bangalore
Hariprasad Reddy	Wipro Ltd	Bangalore
Baskar Rao	TVS Motors	Hosur
Thomas George	SLK Software	Bangalore
Bhaskar Babu T	Siemens Technology and Services	Bangalore

## Course Fee

INR 500/- per faculty (+18 % tax) and INR 400/- per research scholar (+18 % tax (inclusive of course material)).

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: 24 April 2022

Start date: 27 April 2022

End date: 28 May 2022

**Contact:** Program Director : FDP-DS-01,  
SQC & OR Unit, Indian Statistical Institute,  
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**Note:** Kindly mention the participant and course (FDP-DS-01) names in remark/message field while doing online transfer of course fee

**Application Form**

<https://forms.gle/2J29cDFkEHYSdBuK9>

**Course Duration:** 27 April 2022 to 28 May 2022

**Course Fee**

Category	Fee	GST	Total Amount
Faculty	Rs. 500/-	Rs. 90/-	Rs. 590/-
Research Scholar & Others	Rs. 400/-	Rs. 72/-	Rs. 472/-

**Online Fund Transfer Details**

Bank Account Details	
Name	Indian Statistical Institute
Bank	Uco Bank, Kengeri Branch
Account Number	02970200000702
IFSC Code	UCBA0000297
Type of Account	Current Account

## **SQC & OR Division, Indian Statistical Institute**

1. A pioneer and leader in blending statistical theory with practice and institutionalizing the continuous improvement process into a sustainable system.
2. Continually develop and improve methodologies through applied research efforts to attain International Standards in services provided.
3. Organizes training programs, workshops and undertakes industrial consultancy and corporate training program assignments in the field of quality engineering & management, data science, business analytics, etc.
4. Help industries in their efforts to cope up with the growing challenge of global competition by undertaking projects on quality & reliability improvements, process performance modeling and optimization using statistical and machine learning techniques
5. Academic programs (with stipend) offered:

### **MS in Quality Management Sciences**

<https://www.isibang.ac.in/~adean/infsys/database/msqms/msqms.pdf>

### **MTech in Quality, Reliability and Operations Research**

[https://www.isical.ac.in/~deanweb/Final\\_Syllabus\\_for\\_M\\_Tech\\_QROR-2015.pdf](https://www.isical.ac.in/~deanweb/Final_Syllabus_for_M_Tech_QROR-2015.pdf)

### **PhD in Quality, Reliability and Operations Research**

<https://www.isical.ac.in/content/research-fellowships-0>