

# Workshop on Statistical Techniques for Research Methodology

DURING 26-29 October 2017  
Duration – 4 days

*Conducted by:*



**SQC & OR Unit**  
Indian Statistical Institute,  
Room No 320, 3rd Floor Old C G O Building  
101 MaharshiKarve Road, Mumbai 400 020  
Tel 22014588 / 22004574;email: sqcbombay@gmail.com  
[www.isimumbai.co.in](http://www.isimumbai.co.in)

## **Introduction:**

Applied research is a systematic and objective process of gathering, recording and analyzing data for taking appropriate & meaningful decisions. In order to carry out applied research, the researchers need to design the study based on appropriate Hypotheses, gather necessary data and analyze it, and make decisions. The analysis and inference has to be made by using appropriate statistical techniques. To keep pace with the recent advancements in any discipline, one has to be well versed with the latest developments in statistical analysis. Keeping in view the importance of statistics in research methodology, workshop aims to provide knowledge on statistical techniques to the research scholars. This workshop is planned for the research scholar pursuing research in various engineering and management stream.

## **Objectives:**

The five-day workshop is designed in such a way that the participants will be able

- to frame hypotheses, design data collection plan, and comprehend the role and relevance of the tools for data analysis and inference
- to use of software packages like R-studio, SPSS in data analysis.

## **Coverage:**

- Research Methodology and Statistical Techniques
- Types of data
- Descriptive Statistics
- Sampling strategies
- Probability and Probability Distribution
- Variation and modeling variation using Probability distribution
- Hypothesis Testing like t-test, F-test, ANOVA, ANCOVA
- Categorical data Analysis: Contingency tables, odds and odds ratio
- Predictive modeling using Simple, Multiple linear and Logistic regressions
- Multivariate (Factor and Cluster) analysis.

## **Target Participants:**

Research Scholars and Faculty Members of Engineering and Management stream of a University/Institute and Scientists of Research organizations.

## **Venue:**

SQC & OR Unit, Mumbai, Indian Statistical Institute, Room No 320, Old C G O Building, 101 Maharshi Karve Road, Churchgate, Mumbai 400 020.

## **Faculties:**

Experienced faculties of SQC & OR Division having in-depth experience in data analysis.

**Course Fees:**

- ***Rs.20000/- plus 18% GST (Rupees Twenty Three Thousand Six Hundred only) per participant***
- ***Rs. 10000/- plus 18% GST (Rupees Eleven Thousand Eight Hundred only) for full time student and research scholar (Valid id proof is required).***

**Registration:**

***Please fill up the enclosed nomination form and send it to us latest by **October 20, 2017.** (Registration is strictly first come first allotted basis)***

**Indian Statistical Institute**

1. The Indian Statistical Institute is a quasi central organization under the Ministry of Statistics & Programme Implementation.
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. It functions as a University empowered to award degrees upto Ph.D.; as a Corporation in undertaking large scale projects; as a Firm of Consultants to industries to improve Quality, Reliability and Efficiency and as a Meeting place.

**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 national economy through 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 implementation of 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.
7. To provide solutions to the problems pertaining to the entire gamut of complex Business Decision Processes with the aid of Statistics and Operations Research

## Workshop on Statistical Techniques for Research Methodology

October 26 - 29, 2017

### NOMINATION FORM

Organisation:

Mailing Address:

Contact Person:

E-mail:

Phone:

Fax:

Details of the participants attending the program:

1. Name :

Position :

2. Name :

Position :

3. Name :

Position

Details of DD/Cheque attached (Rs.23600/- or Rs. 11800/- per participant) in favor of "Indian Statistical Institute" payable at Mumbai

Amount : \_\_\_\_\_ DD/Cheque No. : \_\_\_\_\_ Date

Bank : \_\_\_\_\_ Branch : \_\_\_\_\_

Signature :

Name :Date :

### **Bank Details: For Online Payments**

Bank Name: STATE BANK OF INDIA

Account Name: Indian Statistical Institute,

Account Type: **Current**

Bank Account No: 10996682279

Branch: MUMBAI MAIN BRANCH

Bank Address: Mumbai Samachar Marg, Horniman Circle, Fort. Mumbai 400023

IFSC code: SBIN0000300

*\*Xerox copy of this form may be used in case of more participants. Please e-mail the form to: [isibombay@vsnl.com](mailto:isibombay@vsnl.com) or send to:*

*Program Director*

*SQC & OR Unit, Indian Statistical Institute*

*Room No,320, 3<sup>rd</sup> Floor, Old CGO Bldg. 101, Maharshi Karve Road, Mumbai 400 020*

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