

Workshop on Design of Experiment

During 17-19 August 2017
Duration – 3 days

Conducted by:



SQC & OR Unit, Indian Statistical Institute,
Room No 320, 3rd Floor Old C G O Building
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Workshop on Design of Experiment

About Design of Experiment

The statistical principles underlying design of experiments were largely developed by R. A. Fisher during the 1920s and 1930s. Over the past few years, there has been a tremendous increase in the application of experimental design techniques in almost all types of industries. The work of G. Taguchi on robust design for variation reduction had revolutionary impact on Japanese industry. Design of Experiment (DoE) assists in process/ product development. It ensures that both planning and execution of experiments are most efficiently managed thereby reducing development time and development cost. Today industries all over the world use design of experiments for problem solving and robust product development. The technique is also useful for establishing defect free processes through optimization of process parameters.

Benefits of the Workshop:

The participants will acquire the knowledge on

- Problem solving and product/process development using design of experiments
- Developing robust products and processes
- Minimizing the variation around target for critical performance characteristics.
- Usage of various types of designs e.g., factorial, Plackett Burman, Taguchi's designs etc.
- Usage of different multiple response optimization techniques

Target Participants:

- Manager, Engineers, Technologists and Scientists from Research and Development/ Manufacturing / Process Engineering and Development departments.

Course Content:

- Quality, Types of data and Probability Distribution.
- Introduction to Design of Experiments
- Test of Hypothesis (t-test / F-test / ANOVA)
- Factorial Experiments
- Fractional Factorial Experiments
- Plackett Burman Designs
- Multiple Response Optimization methods
- Taguchi's Orthogonal Array Experiments
- Robust Design
- Case Studies

Venue:

SQC & OR Unit, Mumbai, Indian Statistical Institute, Mumbai 400 020.

Important Dates:

- Last date for submission of Nominations: 11 August 2017
- Program dates: 17-19 August 2017
- Timing: 9:30 hrs – 17:30 hrs

Faculty:

Experienced faculties of SQC & OR Division having in-depth experience in carrying out experiment at various organizations like L&T, Reliance, BHEL to name a few.

Course Fees:

Rs.15,000/- (Rupees Fifteen Thousand only) + 18% GST as applicable per participant (*The charges includes course material, Lunch, and refreshments*). Before making online payment please check the availability of seats. **Fees once paid will not be refunded under any circumstances.**

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 Design of Experiments
17-19 August 2017
NOMINATION FORM**

Organization:

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 in favour 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: sqcbombay@gmail.com or send to :*

Program Director

SQC & OR Unit, Indian Statistical Institute

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