

Indian Statistical Institute

Indian Statistical Institute is a unique institution devoted to the research, teaching and application of statistics, natural sciences and social sciences. It is declared by an Act of Parliament as an Institute of National Importance.

Over the years the Institute has grown as a multi-disciplinary organization.

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 of scientists, economists & literary figures from all parts of the world.

Role & Function of SQC & OR Division

Pioneer and leader in blending statistical theory with practice and institutionalizing the continuous improvement process into a sustaining system.

To strengthen national economy through continual search for excellence in quality.

To develop highly skilled professionals capable of self actualization.

To disseminate the basic concepts and techniques for quality Improvement by organizing training programs, workshops and corporate training programs.



Address:

Program Directors - DoE-09
SQC & OR Unit, Indian Statistical Institute,
8th Mile, Mysore Road,
Bangalore - 560 059

Phone: +91 94487 04182, +91 8811 9 40517
E-mail: boby@isibang.ac.in; jagadish@isibang.ac.in

*Indian Statistical Institute
Bangalore*



Problem Solving using Design of Experiments

Date:
10 - 11 & 31 August - 01 September 2024

Venue:
Indian Statistical Institute (online)

Web : <http://www.isibang.ac.in>

Phone: +91 94487 04182, +91 88119 40517

Email: -boby@isibang.ac.in

jagadish@isibang.ac.in

Problem Solving
using
Design of Experiments

About Design of Experiments

Design of Experiments (DoE) owes its statistical foundations to the pioneering work of R. A. Fisher during the 1920s and 1930s. In recent decades, the adoption of experimental design techniques has surged across diverse industries. Notably, G. Taguchi's contributions to robust design for variation reduction had a transformative effect on the Japanese industry. Today, companies worldwide rely on DoE for effective problem-solving and the development of robust products. Simultaneously, the academic community extensively employs DoE to validate research findings and enhance scientific understanding.

Course Fee

Rs.3500 + tax (18% of 3500)

Benefits

The participants will acquire the knowledge on

- Problem solving using design of experiments
- Minimizing the variation around target for critical performance characteristics.
- Usage of various types of designs namely fractional factorial experiments, Taguchi method, Plackett Burman designs, Central Composite Designs, Box Behnken designs & Response Surface methodology.
- Computer generated (Optimal) designs
- Handling of binary and count type response variables in experimentation.
- Hands on experience on the usage of tools (MS Excel and R) for analyzing design of experiments data.
- Support and guidance for DoE project execution

Course Content

1. Introduction to DoE
2. Analysis of Variance
3. Factorial Experiments
4. Fractional Factorial Experiments
5. Plackett Burman Designs
6. Analysis of experiments with binary or count response variables
7. Central Composite Designs
8. Box Behnken Designs
9. Computer Generated (Optimal) Designs

Important Dates

1. Last date for submission of Nominations: **08 August 2024**
2. Program dates: **10 - 11 & 31 August - 01 September 2024 (4 days)**
3. Timing: **9:30 am - 5:30 pm (Saturdays & Sundays)**

Application Form

<https://forms.gle/tNFnC9jyxcFziTMC7>

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