INDIAN STATISTICAL INSTITUTE
SQC & OR Unit
Bangalore

Announces

Online Certification Program
for

LEAN SIX SIGMA BLACK BELT

(BB-42 Batch: Online)

Program Dates:

01 – 06 & 15 – 20 September, 2025

Indian Statistical Institute,
8th Mile, Mysore Road, Bangalore - 560 059, INDIA

Phone : + 91 80 26985 402
+91 94483 24220 / +91 94482 77340
Web : www.isibang.ac.in

THE TRAINING SESSION SHALL INCLUDE TOPICS LIKE:

Overview of Six Sigma Methodology, Identification, Prioritization and selection of Improvement opportunities, Roles and responsibilities in Six Sigma implementation.

Over view of Six Sigma Project execution (DMAIC) (Define- Measure- Analyze- Improve & Control) and Gate Review Questionnaire.

Development of Project Team and Charter, Define and Map Processes to be improved (SIPOC -Supplier, Input, Process, Output, Customer), Identification of Critical To Customer / Critical To Business (CTQ/CTB) characteristics, Concept of tree diagram, Voice of Customer.

Types of Data, Statistical distributions - Binomial, Poisson and Normal; Prioritization Matrix, FMEA and their use in Data Collection Planning.

Introduction to various software packages for data display & analysis like Excel, Minitab etc.- understanding in usage & interpretation of output along with each topic, Measurement System Evaluation for measurable (Gauge R&R) as well as for attribute data (Kappa Value and Confidence interval for agreement with expert); Understanding variation - Special causes vs. Common causes (like Dot Plots, Box Plots, Histogram and Control Charts), Stratification methods (like Pareto, Bar Diagrams, Stratified Dot Plot, Stratified Scatter Plot, Box Plot, MultiVari Charts etc), Normality test of a data, and concept of confidence interval; Evaluation of Process Capability for Data, Concept of Short Term, Long Term Process Capability and assessment of Sigma level.

Identification of Value-Added and Non-Value-Added activities, Value Stream Mapping (VSM) (use of lean concept), Organizing for potential causes using Cause-&-Effect diagram, FMEA & Tree Diagram; Verification/validation of causes using work place investigation (GEMBA), Concept of correlation and Regression and use of the same in validating causes; Concept of Test of Hypothesis like 2 Sample t, Chi Square, ANOVA etc and use of the same in validating the causes; Sample Size determination for a given confidence level; Concept of Multiple Regression and Logistic regression and use of the same in validating the causes; Concepts of Exploratory Data Analysis.

Concept of Design of experiment and details of full factorial, fractional factorial and screening designs; Generate Improvement Ideas using Creativity Techniques (Traditional & non traditional)

Lean Concepts, including Kaizen, Solution Evaluation Criteria, Evaluation of solutions and selection of solutions, Change Management Process dealing with resistance to change, Process of piloting the solutions, Risk Analysis through use of FMEA or related methodologies, Concept and Examples of Poke Yoke, Visual Workplace, Planning for full scale implementation.

Evaluation of results after implementation, Monitoring the results through statistical Process Control (like Control Charts, Pre-Control Charts etc) after implementation of the solutions, Monitoring the results as a part of established QMS, Institutionalization and integration of the solutions, Process of Closing the Project.

VENUE AND TIMINGS

The Sessions shall be held **ONLINE** for **12 days** duration, in two phases of six days each, during;

a) **01 – 06 September, 2025** and
b) **15 – 20 September, 2025**
Timings: 10.00 hrs to 17.30 hrs every day, through Microsoft teams.

WHO CAN ATTEND

Degree/Diploma holder in any discipline

CERTIFICATION CRITERIA

Participants will be certified as Lean Six Sigma Black Belt after

a) Maintaining 100% attendance ,

b) Scoring minimum 70% marks in the examination conducted on the last day of the program, and

c) Submission of executive summary of a completed six sigma project, within six months from the end of classroom training

PARTICIPATION FEE

INR 50,000/- per head plus tax of 18%. (Total Rs.59,000/-)

Total fees to be paid by online transfer favoring INDIAN STATISTICAL INSTITUTE, BANGALORE. (The details for online transfer are provided in the second page of the registration form)

REGISTRATION

1.Refer to Registration form for details of application and certification.
2.Seats are limited. Enrolment on First-Come-First-Served basis.

CONTACT

Dr. E V Gijo /Dr. Sanjit Ray
Program Directors: BB-42
SQC & OR Unit,
Indian Statistical Institute
8th Mile, Mysore Road,
Bangalore −560059, INDIA

Phone   : +91 94483 24220
        : +91 94482 77340
        : +91 80 26985 402
Web   : www.isibang.ac.in
e-mail   : gijoev@gmail.com
        : sanjitisi@yahoo.co.in

INDIAN STATISTICAL INSTITUTE

❖ The **Indian Statistical Institute** is a quasi central organization under the Ministry of Statistics and Program Implementation.

❖ 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 and Efficiency and as a **Meeting place** of Scientists, Economists and Literary figures from all parts of the world.

❖ For further details, please visit website **www.isibang.ac.in**

Role & Function of SQC & OR DIVISION

❖ The **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 disseminate the basic concepts and **techniques for Quality Improvement** by organizing Training programs, Workshops and In-house programs.

❖ To develop **highly skilled professionals** capable of self actualization.

❖ To help industries in their efforts to cope up with the growing challenge of global competition through implementation of quality system based on **Six Sigma, World Class Manufacturing etc.**

❖ To continually develop and improve methodologies through **applied research** efforts to attain International Standards in services provided.

❖ To provide **solutions to the problems** pertaining to the entire gamut of complex Business Decision Processes with the aid of **Statistics and Operations Research**.