

Benefits of participating in this program:

The objective of this program is to disseminate the knowledge of Six Sigma methodology among the participants, enabling them to

- Identify quality issues in various manufacturing and service processes within their organization.
- They can link the quality problems to the specific process, products (or services), and individuals.
- They can recognize critical to quality characteristics (CTQ) in various qualityrelated problems.
- Participants can apply the DMAIC approach of Six Sigma methodology for their process improvement projects.
- Participants can conduct various graphical and statistical analysis of the process data to extract valuable and actionable insights.
- > They can **interpret** various statistical measures of the data.
- Participants will be aware of the unique features of popular commercial software used in six sigma implementations.
- Finally, the participants will be knowledgeable for identifying and carry out reallife process improvement projects, which will significantly improve the bottom line of their organization.

Body of Knowledge: Six Sigma Green Belt Certification Program

- 1. Overview of Six Sigma Methodology
- 2. Cultural imperatives of Six Sigma
- 3. Identification, Prioritization and selection of Improvement opportunities
- 4. Roles and responsibilities in Six Sigma implementation
- 5. Overview of Six Sigma Project execution (DMAIC Define- Measure- Analyze-Improve & Control), and Gate Review Questionnaire
- 6. Development of a Project Team and Charter
- 7. Define and Map Processes to be improved (SIPOC (supplier, input, process, output, customer) / COPIS (customer, output, process, input, supplier), Activity Flow Chart)
- 8. Identification of critical to customer / critical to business characteristics
- 9. Voice of Customer
- 10. Type of Data
- 11. Knowledge of Statistical distributions Binomial, Poisson and Normal
- 12. Use of prioritisation matrix in data Collection
- 13. Introduction to various statistical software packages for data display & analysis like Excel, Minitab,

- 14. Measurement System Evaluation (Gauge R&R) for variables as well as for attribute measurements (Kappa Value)
- 15. Understanding special causes vs. common causes variation (like dot plots, box plots, histogram and control charts)
- 16. Graphical summary of data (histogram, dot plot, box plot)
- 17. Pattern analysis of time series data using run chart and control chart
- 18. Normality test of a data, evaluation of Process Sigma Level.
- 19. Verification/validation of causes using workplace investigation (GEMBA)
- 20. Concept of correlation and Regression and use of the same in validating causes
- 21. Concept of Test of Hypothesis like 2 Sample t, Chi Square, ANOVA etc and use of the same in validating the causes
- 22. Generate Improvement Ideas using Creativity Techniques (Traditional & non-traditional)
- 23. Solution Evaluation Criteria, Evaluation of solutions and selection of solutions
- 24. Monitoring the results through statistical Process Control (like Control Charts, Pre-Control Charts etc) after implementation of the solutions
- 25. Monitoring the results as a part of established QMS through use of process audit, product audit and internal audits
- 26. Institutionalization and integration of the solutions
- 27. Process of Closing the Project

Overview of this Program:

The SQC & OR Unit, Mumbai, offers this **online classroom-based** training and certification program through a virtual platform. All training sessions and examinations will be conducted online. The training material (in PDF format) and datasets for class exercises will be shared via a virtual drive. The participants should download the training material and the data set from the drive before attending the classes. The training sessions will primarily use **Minitab** and **MS Excel** for data analysis. Participants can either purchase a Minitab license or download the **trial version**. For doubt clarification, participants may communicate with the faculties on weekdays during the training weeks through a phone call or video chat, or they may personally visit **SQC & OR Unit, Mumbai,** with a prior appointment with the faculties.

Details of the Online Sessions:

The program will use **Microsoft Teams** for online sessions. Participants must **sign up** in Microsoft Teams (<u>https://www.microsoft.com/en-in/microsoft-365/microsoft-teams/group-chat-software</u>) with the e-mail id they will mention in their nomination form. Participants may watch the following YouTube videos to know how to create a new Microsoft Teams account and attend a Microsoft Team session.

https://www.youtube.com/watch?v=oq_6-TJkGBA https://www.youtube.com/watch?v=BH6bSIwR0-4

Eligible Participants:

Engineers, managers, and executives from any function—preferably with a background in engineering, science, or commerce and basic knowledge of MS Excel—can enrol in this program.

Faculties:

Experienced faculties from Indian Statistical Institute will be associated with the training session.

Examination:

Participants must take a one and half hour **online multiple-choice** (MCQ) test on Sunday, **June 29, 2025**, from **2:00 p.m. to 3:30 p.m**. A minimum score of 60% is required to pass. Unsuccessful candidates must **retake the test** within the next 10 days at no additional cost.

Certification Criteria:

For the "Six Sigma-Green Belt" certification, participants must 1) attend all the training sessions and 2) pass the Qualifying tests (MCQ type). Apart from these, interested participants are encouraged to carry out any real-life process improvement projects using the six-sigma approach. However, carrying out project is an optional criterion for the Certification, a participant may or may not opt for it. Interested participants should inform ISI and need to get the project from their parent organization where he/she is currently working. Indian Statistical Institute will not provide any project. However, they will assist in carrying out the project free of cost. The participants need to submit a soft copy of the complete project report within six months from the last date of the training. After the successful

completion of the project, a six-sigma green belt certificate will be issued with the project name. Otherwise, the certificate will be issued without any project name.

Program Schedule :

	Day / Date	Time	Session/Break
	Day-1	5:30 p.m. to 7:15 p.m.	Session -1
	13 June 2025	7:15 p.m. to 7:30 p.m.	Break
	(Friday)	7:30 p.m. to 9:00 p.m.	Session -2
Phase-1		9:30 a.m. to 11:00 a.m.	Session -1
		11:00 a.m. to 11:30 a.m.	Break
	Day-2	11:30 a.m. to 1:00 p.m.	Session -2
	14 June 2025	01:00 p.m. to 02:00 p.m.	Break
	(Saturday)	02:00 p.m. to 03:30 p.m.	Session -3
		03:30 p.m. to 04:00 p.m.	Break
Phi		04:00 p.m. to 05:30 p.m.	Session -4
		9:30 a.m. to 11:00 a.m.	Session -1
		11:00 a.m. to 11:30 a.m.	Break
	Day-3	11:30 a.m. to 1:00 p.m.	Session -2
	15 June 2025	01:00 p.m. to 02:00 p.m.	Break
	(Sunday)	02:00 p.m. to 03:30 p.m.	Session -3
		03:30 p.m. to 04:00 p.m.	Break
		04:00 p.m. to 05:30 p.m.	Session -4
	Day / Date	Time	Session/Break
	Day / Date Day-4	Time 5:30 p.m. to 7:15 p.m.	Session/Break Session -1
	Day / Date Day-4 20 June2025	5:30 p.m. to 7:15 p.m.	Session/Break Session -1 Break
	Day-4 20 June2025	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m.	Session -1
	Day-4	5:30 p.m. to 7:15 p.m.	Session -1 Break
	Day-4 20 June2025	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m.	Session -1 Break Session -2
	Day-4 20 June2025 (Friday)	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m.	Session -1 Break Session -2 Session -1
	Day-4 20 June2025	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m.	Session -1 Break Session -2 Session -1 Break
è-2	Day-4 20 June2025 (Friday) Day-5	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 1:00 p.m.	Session -1 Break Session -2 Session -1 Break Session -2
ase-2	Day-4 20 June2025 (Friday) Day-5 21 June 2025	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 1:00 p.m. 01:00 p.m. to 02:00 p.m.	Session -1 Break Session -2 Session -1 Break Session -2 Break
Phase-2	Day-4 20 June2025 (Friday) Day-5 21 June 2025	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 1:00 p.m. 01:00 p.m. to 02:00 p.m. 02:00 p.m. to 03:30 p.m.	Session -1 Break Session -2 Session -1 Break Session -2 Break Session -3
Phase-2	Day-4 20 June2025 (Friday) Day-5 21 June 2025	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 1:00 p.m. 01:00 p.m. to 02:00 p.m. 02:00 p.m. to 03:30 p.m. 03:30 p.m. to 04:00 p.m.	Session -1 Break Session -2 Session -1 Break Session -2 Break Session -3 Break
Phase-2	Day-4 20 June2025 (Friday) Day-5 21 June 2025	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 1:00 p.m. 01:00 p.m. to 02:00 p.m. 02:00 p.m. to 03:30 p.m. 03:30 p.m. to 04:00 p.m. 04:00 p.m. to 05:30 p.m.	Session -1 Break Session -2 Session -1 Break Session -2 Break Session -3 Break Session -4
Phase-2	Day-4 20 June2025 (Friday) Day-5 21 June 2025 (Saturday) Day-6	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 1:00 p.m. 01:00 p.m. to 02:00 p.m. 02:00 p.m. to 03:30 p.m. 03:30 p.m. to 04:00 p.m. 04:00 p.m. to 05:30 p.m. 9:30 a.m. to 11:00 a.m.	Session -1 Break Session -2 Session -1 Break Session -2 Break Session -3 Break Session -4 Session -1
Phase-2	Day-4 20 June2025 (Friday) Day-5 21 June 2025 (Saturday)	 5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 11:00 p.m. 01:00 p.m. to 02:00 p.m. 02:00 p.m. to 03:30 p.m. 03:30 p.m. to 04:00 p.m. 04:00 p.m. to 05:30 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 11:30 a.m. 11:00 a.m. to 11:00 p.m. 	Session -1 Break Session -2 Session -1 Break Session -2 Break Session -3 Break Session -4 Session -1 Break
Phase-2	Day-4 20 June2025 (Friday) Day-5 21 June 2025 (Saturday) Day-6	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 1:00 p.m. 01:00 p.m. to 02:00 p.m. 02:00 p.m. to 03:30 p.m. 03:30 p.m. to 04:00 p.m. 04:00 p.m. to 05:30 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 01:00 p.m.	Session -1 Break Session -2 Session -1 Break Session -2 Break Session -3 Break Session -4 Session -1 Break Session -2
Phase-2	Day-4 20 June2025 (Friday) Day-5 21 June 2025 (Saturday) Day-6 22 June 2025	 5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 11:00 p.m. 01:00 p.m. to 02:00 p.m. 02:00 p.m. to 03:30 p.m. 03:30 p.m. to 04:00 p.m. 04:00 p.m. to 05:30 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 11:30 a.m. 11:00 a.m. to 11:00 p.m. 	Session -1 Break Session -2 Session -1 Break Session -2 Break Session -3 Break Session -4 Session -1 Break Session -2 Break
Phase-2	Day-4 20 June2025 (Friday) Day-5 21 June 2025 (Saturday) Day-6 22 June 2025 (Sunday)	5:30 p.m. to 7:15 p.m. 7:15 p.m. to 7:30 p.m. 7:30 p.m. to 9:00 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 11:30 a.m. 01:00 p.m. to 02:00 p.m. 02:00 p.m. to 02:00 p.m. 03:30 p.m. to 04:00 p.m. 04:00 p.m. to 03:30 p.m. 9:30 a.m. to 11:00 a.m. 11:00 a.m. to 11:30 a.m. 11:30 a.m. to 11:00 p.m. 01:00 p.m. to 02:00 p.m. 02:00 p.m. to 03:30 p.m.	Session -1 Break Session -2 Session -1 Break Session -2 Break Session -3 Break Session -4 Session -1 Break Session -2 Break Session -3 Break Session -3 Break Session -4

Course fee:

Rs. 20000 + 18 % Tax as per Govt. Rules. Total fees: **Rs.23600/-** per participant. Fees to be paid **through internet banking**. The bank details for on-line payment are given below:

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

Note: Fees Will be fully refunded if ISI cancels the program only.

Registration:

Registrations are purely on a 'first come, first allotted' basis. Participants must enquire (mobile no. 9969928144 / 7738479688) for the seat availability before making the payments. After making the payment, registration should be done online through the "Register Now" option available on the home page of our site <u>www.isimum.ac.in</u>. A confirmation mail will be sent after receiving of the filled-in online registration form and course fees.

LAST DATE FOR REGISTRATION: 09 June 2025