



**INDIAN STATISTICAL INSTITUTE
SQC & OR Unit
Kolkata**



Announces

**Certification Program
for**

SIX SIGMA GREEN BELT

(FREE For Participants from North-Eastern States)

**27th – 31st March, 2017
At Kolkata**



**Indian Statistical Institute,
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Kolkata – 700 108**

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EXPECTATION!

- ❖ **Six Sigma** is like that old Wella Balsam shampoo commercial: 'She told two friends, and they told two friends,' and so on....As Black Belt project leaders multiply and train more people, and those people get involved in projects, the financial impact is exponential, in our view." *Writes Jennifer Pokrzywinski, an analyst with Morgan Stanley, Dean Witter, Discover & Co. (Report on Business Magazine, October 1997)*
- ❖ **Six Sigma** initiative has become a rage. Every organization wants to implement Six Sigma approach in anticipation of improving market penetration and organizational speed at the same time reducing cost of doing business.
- **Six Sigma** is being perceived to take people to higher level of performance with fewer mistakes while making it a strategic option for transforming an organization.
- **Six Sigma** is a Program to be owned and led by leadership orienting strategically towards market place and customer satisfaction.
- **Six Sigma** is described as a methodology to improve business processes and is supposed to provide metrics that strives for near perfection.
- **Six Sigma** embodies a disciplined, data-driven analytical approach for reducing variation in any process and thereby eliminating defects.

PRESENT SCENARIO!

- Six-Sigma is a data driven process improvement methodology. Many a times the project leaders suffer from the lack of adequate understanding of the appropriate tool to apply in a real life situation. Ultimately most of the time prior knowledge or experience take precedence over data analysis.
- The aim of the program is to provide an overview and understanding of this methodology to the participants, and to equip them with how to deal with problems, so that these people can work as internal resource personnel and assist the Black Belts / Master Black Belt effectively in the organization.
- How long we can depend on outside consultants. If Six Sigma has to be natural way we do business then we must have internal change agents who will take the mantle of creating more of change agents inside the organization.
- To seek answers to some of the questions faced by the implementing entities, the **Indian Statistical Institute** is organizing this program of developing internal change agents by equipping them with necessary skill of advanced Six Sigma methodology so that these people in turn can replace the consultants and take up the onus of sustaining the movement on their own.

VENUE AND TIMINGS:

The Sessions shall be held during

27th to 31st March 2017; 09:30 hrs to 18:30 hrs,
at the

Indian Statistical Institute, 203, B T Road, Kolkata 700 108

("Bon Hooghly" Bus Stop, Near "Dunlop Bridge").

FACULTY:

Specialists from Indian Statistical Institute

WHO CAN ATTEND:

- Diploma/Degree holder in any discipline with basic knowledge of Quality Management
- Experience of involvement in improvement projects is desirable

CERTIFICATION CRITERIA:

Qualifying certificate by

- a) 100% Attendance in the sessions, &
- b) Securing 70% marks in the test conducted on the last day of the course.

THE TRAINING SESSION TOPICS:

Introduction to Six Sigma Methodology; Identification, Prioritization and Selection of Improvement opportunities, Roles & Responsibilities in Six Sigma implementation, Over view of Six Sigma Project execution [DMAIC (Define- Measure-Analyze- Improve & Control) or DFSS (Design for Six Sigma) / DMADV (Define Measure Analyze Design and Validate)];

Development of Business Cases. Translating the needs of the customer into the specific requirements - Development of Project Team and Charter, Define and Map Processes to be improved (SIPOC / COPIS); Identification of Critical to Customer (CTC) / Critical to Business (CTB) characteristics.

Data Collection planning, Understanding of Prioritization Matrix and/or FMEA, Type of Data, Introduction to statistical software packages for data display and analysis, Measurement System Evaluation (Gauge R&R) for variables as well as attribute data, Understanding variation - special causes vs. common causes through dot plots, box plots, histogram and control charts, Stratification methods through Pareto, Bar Diagrams, stratified dot plot, etc; Evaluation of Process Capability and Sigma level.

Process Mapping essentials - Activity flow chart, identification of Value-added and Non-value-added activities (Lean Sigma), Organizing for potential causes using Cause and effect diagram, Verification/validation of causes using work place investigation (GEMBA), Concept of correlation and Regression and use of the same in validating causes, Concepts of Test of Hypothesis like 2 Sample t, Chi Square, ANOVA etc., and use of the same in validating the causes, Concepts of industrial experimentation.

Selection and prioritization of solutions for the validated causes including concept of risk analysis, Developing plan for pilot and full scale implementation.

Development of the process control plans, Evaluation and monitoring mechanism (SPC), process audits, comparison of results after implementation of the solutions, institutionalization and integration of the solutions, closing of the project.

PARTICIPATION FEE :

- Participation fee is WAIVED for participants from the North-Eastern States

(Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland , Tripura and Sikkim).

[Must attach valid Proof of Domicile]

- INR 25,000/- per head (Note: This comes to INR 28,750/- with tax) **for others.**

NOTE: 1. **Separate Registration Forms** for NE & Non-NE Participants.
2. **Course Manual, Lunch & Refreshments and Course Kit** will be provided

For participants from states other than North-East:

3. **Applicable Service Tax, presently 15%, TO BE ADDED.**

4. **Applicable fees, if any, to be paid in full alongwith the application.**

(Refer to Page 2 of "Non-NE" Registration Form for details).

Seats are limited. Enrolment on First-Come-First-Served basis.

Submission of nomination: NOT LATER THAN 21st March' 17

CONTACT

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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 D.Sc.; 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 / www.isical.ac.in

Role & Function of SQC & OR DIVISION, ISI

- ❖ 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 **ISO-9000 series, ISO-14000, TS-16949-2002 standards, Six Sigma & World Class Manufacturing**.
- ❖ 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**.