Indian Statistical Institute

www.sqcpune.org

Six Sigma Master Black Belt

12 Day Program: 1st Sep -6th Sep; 8th Sep – 13th Sep'14 at Pune

*Limited seats. Participation on first come basis only by registration.

About Indian Statistical Institute

It is a unique institution, devoted to the research, teaching & application of not only statistics and allied sciences, but also the natural sciences, social sciences and their interface with the statistics. Founded by Prof. P. C. Mahalanobis, a Physicist turned Statistician; the Institute has been accorded the status of an INSTITUTE OF NATIONAL IMPORTANCE, by an Act of Parliament, 1959.

Program Objective

The program will provide participants with in-depth understanding of Six Sigma and develop leadership skills to independently lead Six Sigma initiative in their organization. He/she will be able to integrate Six Sigma to organizational vision, system and culture. He/she will be effective trainer and coach for Champions, Black-belts, Green-belts and Yellow belts. The program would consist of contact training and sample teaching sessions for a duration of 12 days.

Pre-requisites

Certified Black-belt who has successfully completed at least 3 Six Sigma project are eligible for the program. Black belts who are currently handling projects can also undergo the training but would be subjected to provisional certification until completion of 3 projects. Completed projects have to be consolidated according to the Project Card format of ISI, Pune.

Certification Criteria:

Six Sigma Master Black-belt Certificate will be issued after:

1. Passing the test conducted on the last day with a score of >=80%
2. Presentation of one of the 3 Six Sigma Black-belt projects to the panel members at the last day of the program and having composite score >=80%.

For ISI Pune's Six Sigma Master Black belt Identity Card certified Six Sigma Master Black belts are expected to mentor at least 5 Six Sigma Black belt level projects and complete at least 100 hours of teaching for the Champion/ Black belts/Green belts/Yellow belts and get the endorsement from the sponsored Organisation within one year of MBB certification.

Course Content

Phase	Plan	Topics
1	Participants would be trained for conducting Executive Overview training to organization leadership team and champion training	Overview of Six Sigma Methodology, Linking Six Sigma to Vision, Mission, Strategies, SBOs, and Business level dashboards, SBUs, Processes, People and Systems. Organization for Six Sigma, Basics of DMAIC, DFSS and Lean. SIPOC, Business Process Map Champion level process map, Business level dashboard, Project selection strategies, Project Charter, Tracking Six Sigma Project
2	Participants would be trained for conducting Black-belt, Green-belt and Yellow-belt training	Type of Data, Data distributions, Measurement System Analysis – Variable & Attribute, R&R Study, Sampling, Base level Assessment, Normality tests, Capability analysis – Cp Cpk Pp Ppk, Defect & defective, DPMO, DPO, DPU, Sigma Level, Process Analysis – Basic Flow Chart, Activity & Deployment flow chart, Opportunity Flow Chart. Problem Analysis, Sporadic Problems, Chronic Problems, Unstable Process, Control Charts, Test of Hypothesis, Tabular Analysis, Chi – Square test, Regression Analysis, Process FMEA, Solution Prioritization matrix, Solution Matrix, RICI – Chart, Before After tests, Solution Implementation, Design of Experiments - Taguchi, ANOVA, Control Plan, Control Charts for Online Analysis, Mistake Proofing, Overall Review.

3	Participants would be trained for advanced statistical techniques.	Non-parametric tests Time series analysis- Decomposition, Winters method, Single Exponential Smoothening, Double Exponential Smoothening, ARMA, ARIMA and model developments. Reliability analysis. Multivariate analysis- Principal Component analysis, Cluster analysis & Factor analysis. Data Mining- CART, Clustering, MBA.
4	Participants would be trained for Lean Six Sigma	Lean Six Sigma approach, VSM, Takt time, cycle time, Hejunka box, line balancing Japanese management tools- Poka yoke, Andon, Jidokha, SMED, 5S, Kaizen burst
5	Participants would be trained for Design for Six Sigma	DFSS approach: MGAP, Risk mitigation plan, Feasibility study, VoS, Conjoint analysis, Contextual enquiry, new seven tools, QFD, TRIZ, Pugh matrix, P-R map, Design FMEA, DFX, Robust design, High level design, Detailed design, Field quality plan, supplier development plan
6	Participants would be trained for Business Analytic & Data Mining	Classification: Discriminate Analysis, Logistic Regression, Nearest Neighbour Rule, Bayesian Classifier, Decision Tree and CART; Clustering: Hierarchical clustering, K-Means method; Association Mining: Market Basket Analysis, Frequent item set Generation, Association Mining; Dimension Reduction: Principal Component Analysis and Applications; Prediction: Business Forecasting, Polynomial Regression, Outlier Analysis

Schedule

12 Day Program: 1st Sep -6th Sep; 8th Sep – 13th Sep'14.

9:30 am to 5:00 pm

Location

3-4 Star hotel in the heart of Pune city. The venue details will be communicated to the registered participants.

Course Fee

INR 80,000/- per participant. (Plus service tax @12.36% ie., INR 9,888)

Note:

1. The above fee is also inclusive of Course Kit, Breakfast, Lunch and Refreshments.
2. For registration procedure please refer to the registration form available at http://www.sqcpune.org/training-programs/training-calendar or email us for the same

Faculty

Dr. Ashish Chakraborty, Head, SQC&OR Division
Dr. Pathik Mandal, Professor, SQC&OR Division
Prof. Subrata Rath, Head, SQC&OR Unit, ISI, Pune
Dr. D. T. Shirke, Professor & Head, Department of Statistics, Shivaji University, Kolhapur

Contact Details

Website: **www.sqcpune.org**
Email: **training@sqcpune.org**
Mobile: 09371058816 (Prof. Subrata Rath)