



INDIAN STATISTICAL INSTITUTE
SQC&OR UNIT, PUNE
www.sqcpune.org
SIX SIGMA MASTER BLACK-BELT CERTIFICATION PROGRAM
FOR 12 DAYS OF CLASSROOM SESSION DURING 3-8 & 10-15 September-18



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.

Six Sigma Master Black-belt is a 12 days class-room program spread over 2 weeks. Practicing Six Sigma Black-Belts having completed 3 Six Sigma projects would be eligible to enrol for this Program. Exposure to Master Black-Belt Program would make the participants capable to deploy Six Sigma to any Organisation as effective mentor. An MBB would be able to effectively train and coach at all levels including Leadership team, Sponsor, Champion, Black-Belt, Green-Belt and Yellow Belts on all the related disciplines viz. DMAIC, Lean Six Sigma, Design for Six Sigma and Business Analytic using Data Mining. Our MBB would be able to act as RAJGURU to any Organisation to enable sustainable, predictable and desirable growth in profit following the laws of the lands.

Who can enrol?

The program is only for those Certified Six Sigma Black-Belts who have completed three Six Sigma Black-Belt level Projects.

Certification Requirements:

Six Sigma Master Black-belt Certificate will be issued after successful completion of Content Test and a Test of Presentation skill with $\geq 80\%$ marks in the test conducted on the last day of the session.

We also issue an MBB ID card to the MBB once he mentored at least five Six Sigma Black-Belt level projects and complete at least 100 hours of training session within one year from the date of issue of MBB Certificate.

Course Content

Topics

Introduction

Content

Vision & Mission, Hosin Kanri, SWOT, Balance Scorecard, Business level dashboard
Annual Business Plan (ABP), Strategic Business Plan (SBP), Multigenerational Process (MGP) and MGAP (Multi generation annual plan), Six Sigma linked to business benefit, Six Sigma Deployment Strategies- Business Process Management Systems, DMAIC, Lean Six Sigma and DFSS
Organisation for Six Sigma, Role clarity and certification requirements, Project hopper
Project selection methodologies
Change Acceleration Process

Refreshing DMAIC

Project Hopper, Project Charter, Voice of Customer, Critical to Quality, Tree Diagram, Pareto, SIPOC
Type of Data, Measurement System Analysis – Variable & Attribute, R&R Study, Sampling, Base level Assessment, Normality tests, Capability analysis – CpCpk 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, Real cause identification
TRIZ, Solution Prioritization matrix, Solution Matrix, RIC – Chart, Before After tests, Solution Implementation, Design of Experiments - Taguchi, ANOVA
Control Plan, Control Charts for Online Analysis, Mistake Proofing, Kaizen
Philosophy, Overall Review, Evaluation Test

Lean Six Sigma

Define Phase:
Project charter, VSM- CS
Measure Phase:
Waste related CTQs, Spaghetti chart, Routing card
Analyse Phase:
Seven Point Waste
Improve Phase:
VSM-FS, Kaizen- Takt time, Heijunka box, Pull-JIT, 5-S, SMED, Andon, Poka Yoke, Jidokh, Super market, Suggestion system, TPM
Control Phase:
Report-out

DFSS

- Define Phase

Project charter
MGP-MGAP
Conjoint analysis
Contextual enquiry
ECTQ Dashboard

- Measure Phase:

QFD
Design scorecard

- Analyse Phase:

Transfer functions
Simulation
DFX
Axiomatic design
TRIZ
Pugh Matrix
Fault tree analysis
Reliability analysis
FMEAs
Tolerance design

- Design Phase:

Design competencies
Design components- Design configurations
P-R Map
Control plans

- Verify Phase:

ECTQ Dashboard
Control plans

Business Analytic using Data Mining

Introduction to Business Analytic using Data Mining
Data Preparation
Outlier Analysis
Data Normalisation
Data Dimension Reduction (Principal Factor Analysis & FA)
Data Visualisation
Classification (Logistic regression, Decision tree, CART)
Clustering concept
Affinity analysis (Market basket Analysis concept)
Predictive analytic including Time series forecasting

Examination

Theory Session
Presentation Session

Schedule

12 Day Program: **3-8 & 10-15 September-18** 9:30 am to 5:00 pm

Location

The Central Park Hotel, Near Inox Multiplex, Bund Garden Road, Pune, Maharashtra 411001
Phone:020 4010 4000

In case of limited number of participants, the program will take place in:

Indian Statistical Institute,
B-9, 3rd Floor,
Anandvan Co-op. Hsg. Soc.,
Survey Number 36, Kothrud,
Pune 411 038.

Course Fee

INR 70,000/- per participant. (Plus applicable GST @18% ie., INR 12,600) Totalling to INR 82,600/-.
Participant would have to pay by cheque favouring INDIAN STATISTICAL INSTITUTE, payable at Pune.

In case the venue is changed to our office premise,

Fees would be

NR 60,000/- per participant. (Plus Applicable GST@18% i.e, INR 10080/-) Totalling to INR 70,800/-

Mode of Payment:

- Drawing a Cheque/DD in favour of “**Indian Statistical Institute**” payable at Pune
- For RTGS or NEFT: **Current account number 11138205207 with State Bank of India, Erandavana Branch; IFSC No. SBIN0004618.**

Note :

1. The above fee is also inclusive of Course Material, 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

Contact Details

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