## Lean Six Sigma Master Black Belt Certification Programme

(MBB 11)

**DURING April - May 2018** (12 days)

Conducted by:



SQC & OR Unit, Mumbai Indian Statistical Institute,

Room No 320, 3rd Floor Old C G O Building 101 Maharshi Karve Road, Mumbai 400 020: Tel + 91 22 22014588/Telefax: +91 22 22004574

Email: - <a href="mailto:sqcbombay@gmail.com">sqcbombay@gmail.com</a>

#### MASTER BLACK BELT CERTIFICATION PROGRAMME

#### Six Sigma/Lean Six Sigma - Why?

Competitive pressure is forcing the organizations to look for the ways and means for improving their processes, so that the Quality of the products and services improve, waste reduces and customer satisfaction increases. But, it cannot just happen overnight. Here Lean Six Sigma provides the answer of reducing variation as well as adjusting the process center. It is a top down, data driven approach to analyze the root/potential causes of problems of business process and prevent them from occurrence/ recurrence. It ties the output of a business process directly to customer requirements/ satisfaction. Some of the salient points are

- Six Sigma embodies a disciplined, data-driven analytical approach for reducing variation in any process and thereby eliminating defects.
- Lean Concept allows producing the same with lesser resource.
- A fusion between Six Sigma and Lean Concept makes the process being efficient and effective. It is being perceived to take people to higher level of performance with fewer mistakes while making it a strategy for transforming an organization.
- Lean Six Sigma is described as a methodology to improve business processes and is supposed to provide metrics that strives for near perfection.

#### **Present Scenario:**

However the implementation and its sustenance is the major challenge today. The major issues today may be summarized as follows;

- Projects remain open much longer than the anticipated 3-6 months
- Black Belts are unable to get cooperation (from functions and departments) in collecting data, identifying root causes, etc.
- Teams lose focus part of the way through their Projects
- Successes with Projects in one department or function are not reapplied in others
- Managers resist assigning high performers to Black Belt jobs, keeping these performers for "real work" instead
- Managers see Six Sigma as competing with other improvement initiatives, and are reluctant to participate
- Master Black Belts (MBBs) do not have adequate knowledge on right applicable methodology on Six Sigma and Lean tools

#### Why This Program?

Towards implementation and sustaining the Six Sigma/Lean culture in an organization's progress, MBB training becomes an essential step. Our MBB programme is designed to give sharpened technical skills, coaching skills and internal advocacy skill to the existing Black Belts and quality personals to lead the Six Sigma efforts within their company.

Through this training each MBB will;

- Gain in depth understanding and application of the DMAIC / DMADV or DFSS and Lean improvement methodology using the project execution road map and how to integrate them.

- Gain an in depth knowledge of common and advanced statistical tools which will be required to guide different types of Lean Six Sigma projects.
- Learn to create a measurement system that pulls for the creation of lean or Six Sigma projects when it is most beneficial to the organization.
- Finally gain project consulting expertise.

#### **Course Description:**

In addition to selected topics of Six Sigma Black Belt Body of Knowledge, following topics will be discussed.

- Overview of Six Sigma Methodology and Lean
- Review Strategies for effectively implementing Six Sigma and Lean Six Sigma in an organization
- Understanding of Deployment Strategies Business Goals/ Dashboards/ Balance Business Score Card or Customer Goals including linkages with financial goals
- Executive and other roles and responsibilities in Six Sigma/Lean implementation
- Six Sigma Project selection-linkage to strategy
- Over view of Lean Six Sigma Project execution (DMAIC or DFSS/ DMADV)
- Project Review Guidelines and selection of Belts for the projects
- Voice of Customer, Affinity Diagram & Quality Function Deployment
- Distribution fitting of a data, evaluation of Process Capability and Concept of Process Capability and assessment of Sigma level
- Identification of VA and NVA activities in Processes.
- Value Stream Mapping
- Lean tools and integration of Six Sigma and Lean concept i.e., Lean Six Sigma
- Logistic regression and use of the same in validating the cause
- Reliability Theory, Design FMEA, Pugh Matrix, Fault Tree Analysis
- Taguchi Methods of Parameter and Tolerance Design
- Exploratory Data Analysis
- Multivariate Analysis like (cluster analysis, factor analysis etc.)
- Conjoint analysis
- Simulation
- Queuing theory
- Change Management Process dealing with resistance to change,
- Concept and Examples of Poke Yoke, Visual Workplace and 5S & Planning for full scale implementation.
- Process of Closing the Project
- Work through at least 3 Six Sigma projects of different applications
- Process of Closing the Project

#### **Method:**

The subject matter will be handled by multi disciplinary Faculty. Heavy reliance will be placed on Interactive learning through group exercise and topic presentation. The atmosphere will enable probing, questioning and reasoned academic disagreements.

#### **Eligibility:**

Degree holder in any discipline with at least 6 months of specialized training in quality management sciences from a recognized institutions like ISI etc. and/or Certified Black Belts from recognized certification bodies like ASQ, ISI, Motorola university, Rath &Strong etc. Each candidate should have at least 2 years of experience in conducting/guiding atleast 10 improvement projects.

#### Venue:

SQC & OR Unit, Mumbai, Indian Statistical Institute, Room No 320, Old C G O Building, 101 Maharshi Karve Road, Mumbai 400 020.

Everyday programme will start at 1000 and end at 1800 hrs.

#### **Programme schedule:**

The certification program on Lean Six Sigma Master Black Belt consists of two modules spread over two months.

Phase -1: April 16-21, 2018 Phase -2: May 21-26, 2018

#### **Course Fees:**

Rs.70,000/- (Rupees Seventy Thousand only) + 18% GST = Rs.82600/- applicable per participant (The charges includes course material, Lunch, tea/coffee).

.

#### Fees Once Paid Will Not Be Refunded Under Any Circumstances

### **Important Dates**

• Last date of submission of nomination: April 11, 2018

#### **Certification Criteria**

- Qualifying certificate by securing 75% marks in the test conducted on the last day of the course.
- MBB certificate will be issued after successfull passing of the test and guiding 5 projects on improvement & conducting 120 hours of training in related topics or attending 3 conferences/seminars/workshops on related subjects in the following one Year.

#### Contact

Programme Director, SQC & OR Unit, Indian Statistical Institute, Room No 320, Old C G O Building, 101 Maharshi Karve Road, Mumbai 400 020.

#### **Registration:**

Please fill up the enclosed nomination form along with copy of BB certificate and send it to Programme Director latest by April 11, 2018

#### **Indian Statistical Institute**

- The Indian Statistical Institute is a autonomous body under the Ministry of Planning, Govt. of India.
- 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 upto 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

#### 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 ISO-9000 series, ISO-14000, QS-9000 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

#### **Challenges Undertaken**

- The Division has successfully dealt with many challenging problems in the following areas: Design and development, Production scheduling, Process development & control, Process optimization, Line balancing, Production line maintenance, Optimal utilization of raw material, Inventory planning, Reliability analysis & prediction, Sales forecasting etc. covering a wide range of industrial and service sectors.
- The Division has its share of contribution in the development and improvement of methodologies for real life problems. They include Optimal sampling and inspection procedure, Optimizations in manufacturing, Warranty cost analysis, Taguchi methods of Quality Engineering, Optimum scheme for oil exploration, Debugging procedure in software development etc.

# MASTER BLACK BELT CERTIFICATION PROGRAMME April – May 2018 NOMINATION FORM

Organization:	
Mailing Address:	
Contact Person : E-mail :	
Phone: Fax:	
Details of the participants attending the program:  1. Name: Position: 2. Name:	
Position:	
3. Name:	
Position: [Attach a copy of certificates related to eligibility criteria]	
Details of DD/Cheque of Rs.82600/- incl. GST @18% attached in favor of "Indian	
Statistical Institute" payable at Mumbai	a in tayor of matan
Amount: DD/Cheque No. : Dat	te:
Bank: Branch:	
Bank Details: For Online Payments 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 400 023 IFSC code: SBIN0000300	
Signature: Name: Date:	
*Xerox copy of this form may be used in case of more participated form to: isibombay@vsnl.com or send to:  Program Director  SQC & OR Unit, Indian Statistical Institute  Room No,320, 3rd Floor, Old CGO Bldg.  101, Maharshi Karve Road, Mumbai 400 020  Tel. 022 – 22014588 / 22004574 Email- sqcbombay@gmail,com	unts. Please e-mail the