INTRODUCTION

Field of quality and lean keeps advancing in both depth and breadth with the scope of application of its various methodologies expanding beyond the traditional manufacturing arena. Resolving quality and productivity issues and improving customer satisfaction are now a major concern of every organization, including public, private and service sector. Knowledge and application of six sigma methodology and lean management tools and techniques can play a key role to systematically resolve quality and productivity problems. Proper understanding of tools suggested in DMAIC principal and Toyota Production System (TPS) for variation reduction and waste elimination can result in many fold benefit for an organization. This short term weekend course will provide fundamental concepts, and hands on experience on various statistical and mathematical tools and techniques suggested for six sigma and lean management. Various relevant cases will also be used and hands-on demonstration of MINITAB, R, and Microsoft Excel for analyzing cases and data is the essence of this course.

BROAD OBJECTIVES

The aim of this 7-day short-term weekend (only on Sunday) course will be to familiarize and illustrate application of key concepts/techniques/methodology of six sigma and lean management. More emphasis will be given to case-based application of key concepts/tools and techniques of Six Sigma and lean management. Participants will also learn how to use MINITAB statistical software, Microsoft Excel and R data analysis package for detail analysis and interpretation of various problem situations. Upon successful completion of this course, participants will be equipped systematic use of methodology/key tools suggested in lean and six sigma.

COURSE CONTENTS

- Overview and History of Quality Management, Six Sigma Methodology and Lean Management
- Identification, Prioritization and selection of Improvement Projects (Define Phase)
- Identification of critical-to-quality characteristics, Data Collection and Planning (Measurement Phase)
- Introduction to MINITAB, Rstudio, and Microsoft Excel software packages for data visualization (Measurement Phase)
- Basic Statistics to understanding variation, sampling techniques, probability, sampling distribution and Confidence interval (Measurement Phase)
- Fundamentals on Product Reliability Assessment (Measurement Phase)
- Statistical Process Control charts for Variables and Attribute (Measurement/Control Phase)
- Process Capability and Assessment of Sigma level (Measurement Phase)
- Understanding Statistical Techniques, such as Hypothesis Testing, t test/chi-square /F test, Simple and Multiple Regression, and Logistic Regression (Analyze Phase)
- One way and Two-way Analysis of Variance (ANOVA) (Analyze Phase)
- Design of Experiment (DOE) in MINITAB (Improvement Phase)
- Taguchi’s Robust Design of Experiment using MINITAB 18 (Improvement Phase)
- Control Phase of Six Sigma and Overview of Six Sigma Project Execution and closure of Six Sigma Project
- Fundamentals of Toyota Pull Production System (TPS) and Lean Management
- Demand Forecasting Techniques in MINITAB
- Inventory Optimization and Kanban System
- Load balancing, Overall Equipment Effectiveness, Hoshin Kanri

WHO MAY BENEFIT

Experienced Working Professionals, Scientist in R&D, Faculty Members, and fresher’s interested in the area of Quality Management / Industrial / Production / Design / Manufacturing / Process Engineering and Optimization. Researchers, consulting engineers, and self-employed practitioners engaged in quality assurance, operation, production, service, and process improvement can also benefit from this course. As participants are expected from various parts of country, this course can also provide an excellent opportunity for the participants to interact and get connected with and collaborate on varied problems of mutual interest.

VENUE FOR CLASSES

Classes will be held only on Sunday in IIT Bombay.

LECTURE NOTES

To fully realize the objectives of the course, course material lecture notes/slides/books will be made available for personal academic use to the participants at IIT Bombay.

FACULTY

The teaching faculty constitutes experts from Shailesh J. Mehta School of Management, Mechanical Engineering Department of IIT Bombay, Indian Statistical Institute, and Industries.

ACCOMMODATION

No accommodation facility will be provided to participants as this is weekend course (only on Sunday from 9.30 AM till 5.30 PM)

IMPORTANT DATES

Last date for receipt of registration form: 28th November 2017

Final Notification of acceptance: 30th November 2017

Course dates: 3rd December 2017–28th January 2018
(Only on Sunday from 9.30 AM-5.30PM except 24th and 31st December)
Note:
- Incomplete application forms will not be accepted.
- For additional copies of the registration form, please use a photocopy or type in the format given.

REGISTRATION FEE

Total fee per participant for 7 days
Rs 47200/- (Rs.40000/- + Rs.7200/- towards GST @18 %)

Course fee includes course materials, breakfast, and lunch.

Fee must be paid by a demand draft drawn in favour of “The Registrar, IIT Bombay- CEP Account” payable at Mumbai or online transfer through NEFT. Details given below:

Name of Account: Registrar, Indian Institute of Technology, Bombay
Current Account Number: 10725729128
Name of Bank: State Bank of India, IIT Powai, Mumbai 400076, India
Branch Code: 400002034
MICR Code: 400002034
SWIFT Code: SBININBB519
IFSC Code for RTGS and NEFT: SBIN0001109

No income tax is to be deducted at source from the course fee, as IIT Bombay is exempt from the same. The course fee includes course material, lunch and coffee/tea.

A Certificate of participation from IIT Bombay will be awarded to all participants after successful completion of the course.

Complete registration form along with DD or online transfer details must be sent to the course coordinator at the following address via post or email:

Prof. Indrajit Mukherjee
Course Coordinator,
Shailesh J. Mehta School of Management,
Indian Institute of Technology Bombay,
Powai, Mumbai – 400 076.
Phone: (022) – 2576 7742 / +91 9869607723
Email: indrajitmukherjee@iitb.ac.in / sixsigma@som.iitb.ac.in

For further details, please visit: http://www.cep.iitb.ac.in/calendar.html
REGISTRATION FORM

Seven-days weekend CEP Course on Application of ‘Six Sigma’ and ‘Lean Management’ Techniques using Statistical Software Packages

Dec 3, 2017 – Jan 28, 2018

NAME (BLOCK LETTERS):
__________________________________________________________

__________________________________________________________ Gender: M / F

DESIGNATION: ____________________________________________

ORGANIZATION: ____________________________________________

MAILING ADDRESS: _________________________________________

__________________________________________________________

__________________________________________________________

TELEPHONE: __________________ (O) __________________ (R)

FAX: __________________ MOBILE: __________________

EMAIL: ________________________________________________

QUALIFICATIONS: _______ EXPERIENCE: ______ Yrs.

PAYMENT: D.D. No.: Dt. Rs.

[Demand draft should be drawn in favour of “Registrar, IIT Bombay (CEP Account)].

NEFT /RTGS Transaction Reference details:

Date of Transaction: __________

Date: __________________ Signature of Applicant

(PHOTOCOPY ADDITIONAL COPIES OF THIS FORM, IF NEEDED)