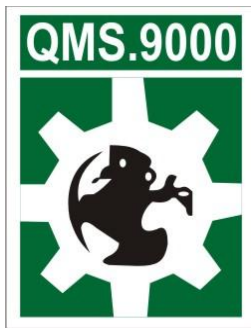


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Six Sigma Onsite Training Booklet



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TABLE OF CONTENTS

Section	Course Code	Training Title	No. of Days	Page No.
-	-	Corporate Profile	-	02
I	-	SIX SIGMA AND FOCUSED IMPROVEMENT TOOLS	-	04
	SF	Six Sigma	-	05
	SF-01	Six Sigma Black Belt	15	05
	SF-02	Six Sigma Green Belt	05	08
	SF-03	Six Sigma Champion (Awareness & Introduction)	01	09
	SF	Focused Improvement Tools	-	10
	SF-04	Implementing Statistical Process Control	02	10
	SF-05	Understanding and Measuring Process Performance	02	11
	II	-	Terms & Conditions	-
-	-	Registration Form	-	14



CORPORATE PROFILE:

Quality Management Systems.9000 (**QMS.9000-Est since 1998**) is one of longest running Consultancy and Training organization in this region, with our expertise in various best practices and international standards. The testament of our experience and reliability in this field is evident of our **800 clients**, to whom we have provided these services in the last 15 years of our existence. In addition, we have also imparted exclusive onsite and seminar based trainings to various local and multinational organizations, with over **7000 professional** resources trained and prepared to increase their capability to strengthen their organizations. More details can be accessed via our website.

QMS.9000 offers exclusive **onsite (at your premises) training services** of your own choice and based on your requirement. For your convenience, we have divided these trainings into FOUR domains:

I. CERTIFICATIONS AND COMPLIANCES:

These trainings are more focused on improvement of industrial and service sector based organizations where organization needs to improve their internal operations, Human Resource Management, ensure legal and regulatory compliances as well as Foreign Buyer Compliances.

II. INFORMATION SYSTEMS

These trainings are more focused on Information System and related topics that support organizations in ensuring stability of their businesses against certain levels of issues, problems and risks as well as advanced trainings on various certification courses. These topics range from Information Security, Information Technology Services Management and Business Continuity Management to Risk Management, CISSP, CISA, CISM, etc.

III. LABORATORY ACCREDITATION

We also offer basic & advanced (Lead Implementer) trainings on Lab Management for Industrial testing / calibration Labs based on ISO 17025 and Medical Labs based on ISO 15189

IV. SIX SIGMA & FOCUSED IMPROVEMENT TOOLS

These trainings are more focused on Six Sigma Champion, Six Sigma Green Belt, Six Sigma Black Belt, Implementing Statistical Process Control and Understanding and Measuring Process Performance. Six Sigma is a business improvement approach that seeks to find and eliminate causes of mistakes or defects in business processes by focusing on outputs that are of critical importance to customers. As a result process performance is enhanced, customer satisfaction is improved and the bottom line is impacted through cost savings and increased revenue. Six Sigma is a strategic approach that works across all processes, products, services, company functions and industries.

We provide trainings at your premises



CERTIFICATION & COMPLIANCE		
ISO 9001 Quality Management System	CE MARK Product Certification	ISO 22000 Food Safety Management System
ISO 14001 Environmental Management System	PM Project Management	HACCP Hazard Analysis Critical Control Point
OHSAS 18001 Occupational Health & Safety	C-TPAT Customs-Trade Partnership Against Terrorism	FBC Foreign Buyers Compliances
SA 8000 Social Accountability	OEKO-TEX Textile Production Certificate	OD Organization Development
INFORMATION SYSTEMS		
ISO 27001 Information Security Management System	ISO 20000 Information Technology Services Management System	BS 25999 Business Continuity Management System
Computer Hacking Forensic Investigator (CHFI)	Certified Information Security Manager (CISM)	Certified Information Systems Security Professional (CISSP)
LABORATORY ACCREDITATION		
ISO 17025 Lab. Management System	ISO 15189 Medical Lab. Management System	CWA 15793:2008 Clean Work Area
SIX SIGMA AND FOCUSED IMPROVEMENT TOOLS		
Six Sigma Champion Awareness & Introduction	Six Sigma Green Belt	Six Sigma Black Belt
Implementing Statistical Process Control	Understanding and Measuring Process Performance	

Foreign Collaborations: NETS International -UAE, CONSAK Inc -Canada; Mount10-Switzerland, Global Management Inc – UK, AMI Technology Qatar.



SECTION I

SIX SIGMA AND FOCUSED IMPROVEMENT TOOLS



SIX SIGMA AND FOCUSED IMPROVEMENT TOOLS

Course Code: **SF-01**

Course Title: **Six Sigma Black Belt**

Duration: **15 Days**

Course Descriptions:

Six Sigma emphasizes quality improvement, but it is more than statistics and tools. The proven Six Sigma methodology is a systematic application that is focused on achieving significant financial results. When properly deployed on carefully selected business projects, this methodology can lead to a significant reduction—and in many cases, elimination—of defects and out-of-control processes, which saves valuable corporate resources. That translates into immediate—and dramatic— financial profitability. Six Sigma Black Belt training teaches and prepares change agents and technical leaders within an organization to implement the principles, practices, and techniques of Six Sigma in order to deliver breakthrough business improvement results time after time.

Objective

- Define scope and execute DMAIC projects.
- Apply the DMAIC methodology to business issues and transition projects from phase to phase.
- Apply basic and more advanced statistical analyses to determine the relationship between key inputs and process outputs.
- Effectively manage team dynamics and understand how to work with multiple levels of leadership to remove barriers and achieve project success.
- Close projects and hand over control to process owners.
- Present projects to instructors, peers and managers.

Course Outline

Week 1

- Fundamental Quality Management Approaches
- Fundamental of Six Sigma Methodology
- Six Sigma Calculations
- Introduction to DMAIC Methodology
- Six Sigma Frame Work
- Project CTQ's (VOC, From VOC to CTQ's, Business Goals, Defects/Problem)

- Voice of Customer & Voice of Process (VOC & VOP)
- Project Charter (Project title, business case, problem statement, goals, primary and secondary metrics, project team, communication plan), Project selection guidelines
- Affinity Diagram, Kano Model, Process Mapping, Quality Function Deployment (QFD), SIPOC Diagram
- Data Collection (Identification of KPOVs, data collection plan, types of data), Descriptive statistics (Mean, median, mode, standard deviations, range etc.), Cause & Effect Matrix
- Pareto Chart, Histogram

Week 2

- Process Capability Analysis
 - Process Capability for normal data, Process Capability for non-normal Data, Process Capability for attribute data
- Advance Measurement System Analysis and Gage R&R
 - MSA for Variable Data, MSA for Attribute Data
- Probability Distributions & Applications
 - Normal Distribution, Binomial Distribution, Poison Distribution, Exponential Distribution
- Cause & Effect Diagram, Why Why Analysis
- Inferential Statistics, Confidence Interval Studies , Hypothesis Testing (Variable & Attribute data)
- Mean & Variance Testing (1 sample Z test, 1 sample T test, 2 sample T test, Pair T test), Chi square testing
- Graphical Analysis Tools
- Dot plot, Interval plots, Box plot, Interval plots,
- Analysis of Variance (ANOVA)
 - One-way ANOVA, Two-Way ANOVA
- Correlation study
- Regression Analysis
 - Simple Regression Analysis, Multiple Regression Analysis, Best Subset Regression Analysis, Polynomial Regression Analysis
- Failure Mode Effect Analysis (FMEA)
- Sample Size Selection
 - One sample z-test, One sample t-test ,Two sample t- test, One sample proportion test, Two sample proportion test

Week 3

- Introduction to Design of Experiment (DoE)
- Full Factorial Design of Experiments (Planning, Analysis and Improvement)
- Fractional Factorial Design of Experiments, General Full Factorial Design, Plaket Burman Design. Fold Over Design, Process Optimization Design
- Response Surface Methodology (RSM), Evolutionary Operations (EVOP)
- Introduction to Statistical Process Control

Quality Management Systems.9000

- Application of Process Control Charts for Variable Data,
 - X bar range chart, X bar sigma chart, Individual Moving Range Chart
- Application of Process Control Charts for Attribute Data,
 - p-chart, np-chart, c- chart, u-chart
- Control Plan development, Project Conclusion & Documentation
- Project transformation tools to process owner

Week 4

Written Exam (Two Hrs)



Course Code: **SF-02**

Course Title: **Six Sigma Green Belt**

Duration: **05 Days**

Course Description

Green Belts provide value within the organization's Six Sigma initiative in a variety of ways. They serve on Black Belt project teams to help collect and analyze data, develop process maps, assist the Black Belt in certain levels of statistical analysis, and develop experimental designs for a particular project. These activities serve to both support and accelerate progress in every project—which helps to maximize the organization's return on its investment, and adds capacity to deliver even greater numbers of breakthrough improvement projects throughout the company.

Objective

- Understand the Important Concepts in Six Sigma, its Methodologies and Application.
- Prepare a road-map for launching Six Sigma in their organization.
- Understand how to apply Six Sigma methodologies for improving the organization's business processes and profitability in today's world of global competition.
- Understand the Key Success Factors & Challenges during launch, deployment & sustenance of Six Sigma.

Course Contents

- The fundamental of Quality & Six Sigma approaches.
- Determining VOC, CCR, CTQs to identified Six Sigma Project.
- Define Phase tools (Affinity Diagram, Kano Model, SIPOC, Process Mapping etc.)
- Measure Phase Tools (Descriptive Statistics, Pareto Analysis, Histogram, Process Capability and Measurement System Analysis-Gage R&R)
- Analyze Phase Tools (Cause & Effect Diagram, Hypothesis Testing, Confidence Interval, Correlation and Regression Analysis.
- Improve & Control Phase Tools (Design of Experiment, Controls Charts, etc



Course Code: **SF-03**

Course Title: **Six Sigma Champion (Awareness & Introduction)**

Duration: **01 Day**

Course Descriptions

The Champion will acquire the skills and tools to select projects, implement improvements, execute control, and alleviate roadblocks to success. The goal of this training is to increase your knowledge of the Champion roles and responsibilities to effectively lead a team of Black Belts. As a Champion, you will learn to identify the elements of a well-written business case as well as learn the importance of project selection. Finally, you will learn about the tools used to complete successful projects as well as your responsibilities throughout the DMAIC process.

Objective

Champion Training objective is to produce Champions who are responsible for coordinating a business roadmap to successfully achieve Six Sigma within the client organization.

Course Contents

- Six Sigma as a Methodology
- Six Sigma Metrics and Measurement
- Introduction to six sigma tools in Define, Measure, Analyze, Improve and Control Phases.
- Champion roles and responsibilities
- The Typical Roadmap
- Project Selection and the Charter
- Black Belt Deliverables
- The Management Skills Needed To Lead Change



Course Code: **SF-04**

Course Title: **Implementing Statistical Process Control**

Duration: **02 Day**

Description

You've collected informative data, but now what? It's nearly impossible to control processes – let alone improve them – without the application of statistical tools. Statistical process control may seem intimidating, but it doesn't have to be. This course will help you understand the powerful statistical tools that are available and be able to use them to make the most of your organizational processes.

Learn ways to control your processes and thus ensure that they meet established performance criteria. Discover different ways to plot data using control charts that are appropriate to the type of data you want to examine. Understand the different types of control charts. Be able to determine which control charts are most appropriate in which situations and with which kinds of data sets.

Objective

- Present methods that facilitate process control and signal situations where processes deviate from established targets.
- Introduce the various types of control charts that are appropriate for specific data sets.
- Learn the pitfalls of working with control charts (do's and don'ts).

Course Contents

- Methods for monitoring and control
 - Process management charts
 - Visual controls
- Variation and individuals control charts
- Control charts for high-volume processes with subgroups
 - Xbar and R charts
 - Xbar and S charts
 - IMR Charts
- Control charts for detecting small shifts quickly
 - Exponentially weighted moving average
- Control charts for discrete variables
 - P and NP charts
 - C and U charts
- Using Minitab™ in support of statistical tools



Course Code: **SF-05**

Course Title: **Understanding and Measuring Process Performance**

Duration: **02 Day**

Description

Don't jeopardize your performance with a too-narrow focus. Organizations are often managed in functional units (e.g., sales, engineering, manufacturing, servicing, etc.). Because of this silo approach, problems occurring during the interactions of the various functions often cause people to stay focused on their own units rather than on the needs and wants of the end customer or the overall performance of the organization.

Learn how to effectively switch from a functional approach to a process approach, and how to stay focused on process interactions (handoffs), where most problems occur. Understand how processes behave by recognizing and measuring the critical variables that impact process performance.

Objective

- Understand processes and how they behave.
- Learn ways to monitor and measure process effectiveness and efficiency.
- Learn how to construct detailed process maps and understand how they can help monitor and measure processes.
- Recognize the value of statistical tools in monitoring and measuring process performance.
- Understand how process measurements impact financial performance

Course Contents

- The process approach and its benefits
- High-level process mapping (supplier– input – process – output – customer)
- Critical process variables and how to monitor and measure them
- Process metrics: process yield, process capability (e.g., Cpk), sigma quality level
- Other key process measurements (e.g., cycle time, overall equipment effectiveness)
- Applicable statistical tools (e.g., time plots, frequency plots, control charts, scatter plots)



SECTION II

TERMS & CONDITIONS



TERMS & CONDITIONS

Following are the terms and condition for offsite and onsite premises;

<p align="center">Offsite Premises QMS.9000 Responsibility</p>	<p align="center">Onsite Premises Client Responsibility</p>
<ul style="list-style-type: none"> ■ Multimedia, ■ White Board, ■ Training hall, ■ Lunch / refreshments etc. 	<ul style="list-style-type: none"> ■ Multimedia, ■ White Board, ■ Training hall, ■ Lunch / refreshments etc.

Important Note:

- Maximum of 18 participants will be accommodated in each training
- Training will be arranged for Minimum 10 participants in each training
- For two or more modules by an Organization there will be 10 % discount.
- Training charges are to be paid in advance
- One week notice is required to ensure availability of trainer
- Course Timings: 0900-1700 hrs
- Certificates will be provided to all participants



REGISTRATION FORM

FOR ORGANIZATION

Course ID:

Please write course code from the Brochure i.e. the courses that you wish to have at your organization

Name Of Organization	
Location Address (where you want to hold trainings)	
Contact Person (with designation)	
Phone	
Mobile	
Email	
Number Of People (mention how many people from your organization will attend)	
Tentative Dates On Which You Want To Hold These Trainings	
Postal Address For Correspondence (if it is different from location for training)	

Note: Organizations can make copies of the Registration Form

Send Your FILLED Registration Form via Email, Fax and Postal Address to our Office.