

*Implementation Workshop*

*ON*

# **Six sigma Green Belt**

Offered by

***QC Services***

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## **IMPLEMENTATION WORKSHOP ON Six Sigma Green Belt**

This is a practical workshop leading to systematic analysis, process improvement & control of quality problems.

This program is focused on solving practical problems, achieving savings & human resource development at the same time.

The programme is offered as an in-house implementation package in following steps:

1. Management identifies problems and selects 12 to 18 participants with appropriate process knowledge and experience.

Problems should be identified as follows,

- a) Specific issues causing customer dissatisfaction, warranty claims, issues addressing loss of market share or mismatch in customer service such as delay in delivery etc.
- b) Specific issues within the organization such as rejection, rework, reprocessing, delays, excess cycle time, productivity loss, excess inventory etc.
- c) Specific supplier related problems such as quality issues, delivery delays, mismatch etc.

Typically, the participants are selected using the following criteria:

- a) Appropriate technical background
  - b) Work experience of 5 to 15 years in same or similar processes in which improvement is desired.
  - c) Should be able to form groups of 3 or 4 participants who will work in team to solve the identified problem.
2. Participants bring all the available data on processes to the class. This will be used in the class for analysis & project guidance.
  3. **ATTEND FIRST PHASE OF 3 DAYS TRAINING** (schedule enclosed).
  4. Next 3 to 4 weeks:- Participants collect further data if required and use all the tools & techniques discussed in the class to further refine the problem. Based on these studies, some problems may be solved in this period. In such a case participants can complete their report and collect data on other problem for next phase.
  5. **ATTEND NEXT PHASE OF THREE DAY TRAINING** (schedule enclosed)
  6. Apply advanced analysis & improvement tools by designing and conducting experiments. Confirm improvement results.
  7. **ATTEND LAST TWO DAYS OF CONTROL** and continuous improvement phase.
  8. Implement control techniques, confirm control and introduce continuous improvement.

## PROGRAM SCHEDULE PHASE – I Define & Measure

Session	Day I	Day II	Day III
I	Introduction Review of problems Role of Quality in revolutionizing manufacturing Learning from customer & competitive rating	Histogram Normality & Quality Process capability	Why – Why analysis Cause & effect Linear regression
II	Process Mapping FMEA	Data collection tools Define & Measure Problem	Factor search method
III	Measurement system analysis (MSA)	Methodology of analysis Run Charts	Discussion of participants Problems & analysis
IV	Data Collection and analysis tools Histogram Exercise	Multivary charts Paired comparison B v/s C	Contd.....
			Closure of phase I

**Before the next phase one faculty member will make visit to meet all the groups, review progress and report on the progress to management.**

## PROGRAM SCHEDULE – PHASE II Analyze & Improve

Session	Day I	Day II	Day III
I	Presentation by Participants & Faculty comments	-DOE Full Factorial & Fractional Factorial designs	Poka - Yoke
II	Presentation by participants and faculty comments	-EVOP	Employee Involvement, TPM, 5 'S' Kaizen
III	Multiple regression	-Control of hardware -Process control manual Implementation	Plan for further studies & implementation Group presentation and discussions
IV	DOE full factorial designs, fractional factorial designs	Process capability & Machine Capability	Closure of Phase II

**Before the next phase one faculty member will make visit to meet all the groups, review progress and report on the progress to management.**

## PROGRAM SCHEDULE – PHASE III Control

Session	Day I	Day II
I	Control Charts for variables	Review of all Projects & future plan
II	Control charts for variables (Contd...)	
III	Pre-control Charts	Management Presentations by groups
IV	Control charts for attributes	