



STATISTICAL PROCESS CONTROL (SPC)

Two Days Training

Effective Quality Trainings:

1. Advanced Product Quality Planning (APQP)
2. Production Part Approval Process (PPAP)
3. Failure Mode Effects Analysis (FMEA)
4. Quality Function Deployment (QFD)
5. Design of Experiment (DOE)
6. Measurement System Analysis (MSA)
7. Statistical Process Control (SPC)
8. Control Plan

The tide of Globalization has swept the Indian Industries, exposing them to tough international competition from the very best of Global Giants. Indian Industries are awakening to the fact that Customer satisfaction is the key determining factor for the profitability, growth and perpetuity of any business organization. Today, the Indian customer is extremely discerning and selective in choosing from the myriad products available in the market. In such a scenario, merely the quality of product/service is no more a Business winning criteria, but it is a prerequisite for survival. This has resulted in adopting Quality as a business winning strategy, coupled with lean resources to control cost.

Statistical Process Control (SPC) is one such 'Quality' initiative that involves monitoring, controlling and ideally improving a process through statistical analysis. Its four basic steps include measuring the process, eliminating variances in the process to make it consistent, monitoring the process, and improving the process to its best target value.

Much of the cited material covers how to collect the data necessary to SPC, and what charts might best portray that data. A common obstacle to successfully use SPC is getting bogged down with the charts (Fishbone, Pareto, etc.) forgetting that the visual representation of data is but the tool, not an end in itself.

SSA provides an understanding of this subject which involves deeper interaction with the process control situation. The study of Cases and guidelines for interpretation of results provided in the curriculum helps the executives or engineers to improve quality, increase productivity & reduce cost.

Programme Objectives

The programme intends to create an Inhouse resource for the organization that can initiate and accomplish various Statistical analysis for the different business processes and interpret the results to take corrective or preventive measures. The contents of this training will provide an insight into:

- Creating awareness for the various Statistical tools & other applications
- Getting a hands-on experience on the Statistical Process Control tools to achieve breakthrough improvements in the projects undertaken
- To co-relate the RDMAIC methodology of Six Sigma with the various statistical tools.

Programme Contents

1. SPC - A brief history
2. What is SPC ?
3. Why Statistical Process Control ?
4. Need for variation reduction
5. Variations and causes
6. Variable and Attribute Data
7. Control Charts and their interpretations
 - Control Charts for Variable Data
 - ▶ X-Bar & R Charts
 - ▶ X-Bar & S Charts
 - ▶ Median Charts
 - ▶ IMR Charts
 - Control Charts for variable Discrete Data
 - ▶ p Charts
 - ▶ np Charts
 - ▶ c Charts
 - ▶ u Charts

The Programme is beneficial to

1. Companies who need Data Analysis for their Business processes
2. Companies who have Measurement systems to monitor & control their processes
3. Companies who have adopted Process Quality Improvement tools in their Business

Note : No prior exposure to the subject is essential.