

## Statistical Process Control

### Benefits

SPC techniques can help your processes become stable and predictable. In this **16-hour workshop**, participants will learn fundamentals about processes, types of data, variation, and probability. Frequency histograms as well as problem solving techniques will also be explained with examples. Variable and attribute control charts will be covered in details and examples. Process capability analysis will also be covered. The Catapult is used as a process where participants go through the development of control charts. Also a statistical software are used for analysis

### Outline

- Introduction
- Quality Improvement & the Deming Philosophy
- Processes (Flowcharts, Ishikawa Diagram)
- Types of Data & Data Collection
- Probability Theory and its relevance
- Variation (Common vs. Special Causes)
- Tools of Quality
- Frequency Histograms and Checksheets
- Quality Problem Solving Tools
- Specifications
- Statistical Concepts (Normal Distribution, Random Sampling, Mean, Standard Deviation and Range)
- Control Charts
- Constructing and Using Attribute Charts (p, np, c, u)
- Constructing and Using Variable Control Charts (x-bar & R, Median & R, I & MR)
- Monitoring Control Charts
- Out-of-Control Conditions
- Process Capability (Cp, Cpk)

### Who should attend

Quality professionals (engineers / technicians / managers), manufacturing engineers/associates, process engineers, project engineers, lab personnel, and others who might be interested in understanding statistical process control.

**Please contact us to request this workshop onsite!**



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