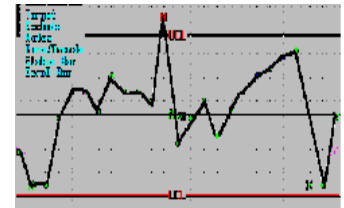


## Statistical Process Control (SPC)

Attendees to this 1-day management overview session gather basic understanding of the subject and are able to decide who and where further training is needed.

Attendees receive brief seminar presentation materials.



**WHERE?** At your facility (For larger group)

**WHEN?** At a mutually convenient time.

**DETAILS:** Please visit for information and registration.

[www.Nutek-us.com/wp-sem.html](http://www.Nutek-us.com/wp-sem.html) - onsite

### WHO SHOULD ATTEND?

- Quality Engineers, Process Engineers, Plant Managers, Operators or anyone looking to gain a better understanding of SPC.

use DOE results for SPC, calculate process capabilities, and learn how to communicate with design engineering in terms of process capabilities.

### COURSE CONTENT

Industrial production often involves mass production of the same part. For such parts to properly assemble and function in the final product, it is necessary to keep the variation in quality characteristic to a minimum. The variation in quality characteristics are caused mainly by two sources; known as common and special causes. Statistical process control (SPC) is used to study the process performance and understand sources of variation with the intention of making corrective actions to reduce variation.

The primary focus of the course will be to help attendees develop a working understanding of the normal distribution and how to construct control charts for variable and attribute data. The attendees gather understanding of how to

### COURSE CONTENT

- Distribution Functions
- Normal, Binomial, Exponential, logarithmic
  - Preparation
  - Areas of application
  - Characteristics & special properties
- Capability Statistics
- How to compare two populations
- Capability indices (calculations and implications)
- Statistical Process Control (SPC)
- Purpose: Identify common and special causes
- Technique: Create standard and compare performance with it.
  - Use key properties of ND (Avg. & Std. Dev.)
  - Calculate Std. Dev. Using arithmetic
  - Create standard AVG. chart for stable performance
  - Collect data and plot them
- Use std. Guidelines for causes of variation

### Learning Objectives:

- Understand normal distribution
- Process capability indices
- Calculation of standard deviation
- Plot of control charts
- Interpretation of process performance

### COURSE INSTRUCTOR

This seminar is led by Ranjit K. Roy, Ph.D., P.E., PMP, and Mechanical Engineer. Dr. Roy specializes in the Taguchi approach to quality improvement and engineering quality improvement topics.



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