

## Design of Experiments: Taguchi Techniques

### Benefits

The purpose of this training is to provide those who have the responsibilities of product or process design and development (determination of technical specifications which will yield high quality) with an approach that will allow them to accomplish these tasks in a timely, cost effective manner. A statistically based, structured approach to product or process improvement will quickly yield significant increases in product quality and subsequent decreases in cost. A strategy that allows the evaluation of several causes of product or process variation is many times more useful than the traditionally used "one factor at a time" approach. Since testing and product/process development are such a significant portion of an engineer's time, it makes sense to use one of the most effective techniques possible. In this **16-hour workshop**, students will learn how to plan, perform, analyze, and interpret results of designed experiments. A pendulum is used as a device in a workshop where students go through the actual design and performance of the specified experiment.

### Outline

- DOE Background
- DOE Process Overview
- DOE Case Studies
- Planning: Phase I
  - Selecting Factors
  - Selecting Levels
  - Selecting Test Combination using Orthogonal Arrays
- Conducting: Phase II
  - Sample Sizes
  - Randomization Strategies
- Analyzing & Interpreting: Phase III
  - Observation Method
  - Column Effects
  - Plotting
  - Ranking
  - Confirmation Experiment
- DOE Workshops

### Who should attend

Quality professionals (engineers / technicians / managers), manufacturing engineers, process engineers, Design/R&D/Project engineers, and others who are be interested in utilizing the process and analysis of DOE's

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



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