

Design of Experiments (DoE) Seminar

OBJECTIVES

Includes basic statistics behind a DOE as well as workshop in which we perform a DOE on a specific product.

WHO SHOULD ATTEND

This course is intended for those involved in quality, manufacturing, design, or test, who want to better understand the different design tools and when to apply which.

OUTLINE

Introduction

- Classic Approach to Experiments
- DOE Benefits

What is DOE and an Overview

- Sample Size Comparison
- Types of Designed Experiments
- Types of DOE Approaches
- The Language of DOE

Conducting a Main Effect Experiment

- State the experiment's objective
- Select factors and levels
- Assign factors to array
- Select effects and analysis criteria
- Select analysis statistics
- Plan experiment
- Conduct experiment
- Results of experiment
- Mean and Signal-to-Noise ratio
- Response table
- Analysis of Variance (ANOVA)
- Conclusions

Dealing with Interactions

DOE in Product Design

Class Exercise

Review of Practical Aspects of Conducting a DOE

Course Review and Close