DOE - Design Of Experiments Training

Training Scope: *DOE training provides answers to the questions of which input variables are more effective on the outputs of the process, which values of the inputs should be fixed to ensure that the outputs are at the desired value, which inputs' variation should be minimized to reduce the variation at the outputs, and ultimately how to obtain the y=f(x) equation needed to optimize the process. After the training, participants are entitled to receive a "**Certificate of Participation**".*
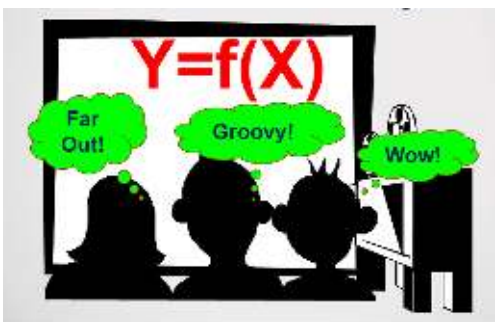
Program Overview

Course Duration : *41 hours total*

Training Details: *24 hours virtual/live classroom, 17 hours of video training*

Who Can Participate: *R&D, Design, Product Development, Quality, Maintenance, Production, Process Improvement Engineers and Managers*

Required Hardware: *Laptop*

Required Software: *Microsoft Office applications and Minitab 20 or 21*
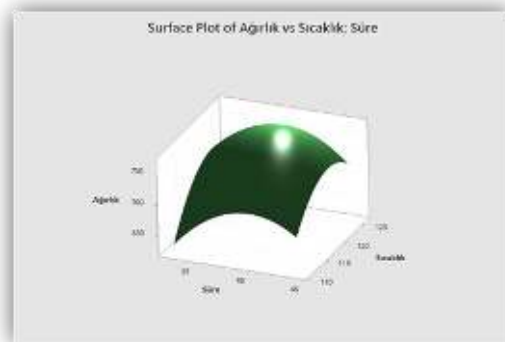
"Statistical thinking will one day be as necessary for efficient citizenship as the ability to read and write"

H. G. Wells

1st Training Module:

- Introduction to Minitab and Basic Statistics

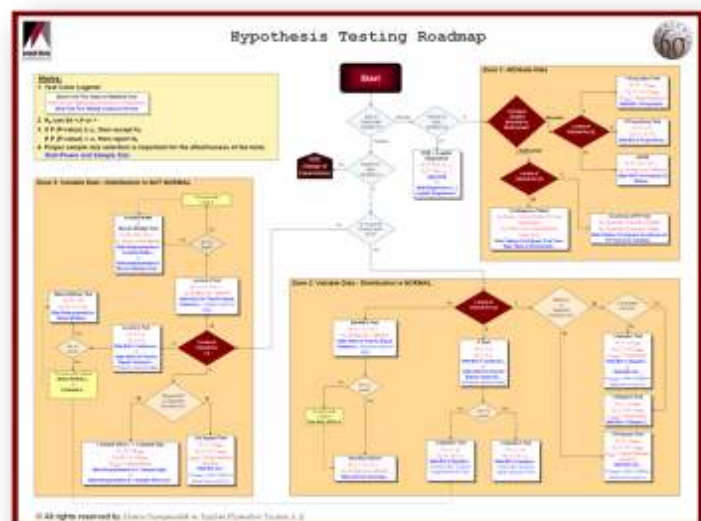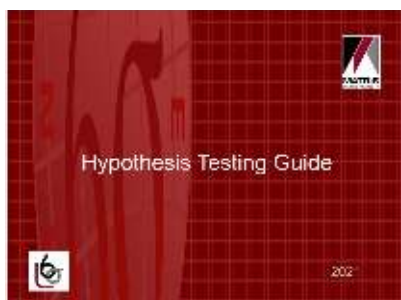- Minitab Basic - Graphic Techniques

- CLT—Central Limit Theorem

2nd Training Module:

- Confidence Intervals

- Introduction to Hypothesis Tests

3rd Training Module:

- Means Tests

- Variances Tests

4th Training Module:

- Correlation & Regression Analysis

- One-Way ANOVA

5th Training Module:

- Introduction to DOE
- Full Factorial Experiment Designs

6th Training Module:

- 2^k Full Factorial Experiment Designs
- 2^k Factorial Experiments - Center Points and Blocking

7th Training Module:

- Fractional Factorial Experiment Designs
- Multiple Regression
- Logistic Regression

8th Training Module:

- Response Surface Designs
- Mixture Design