# **AQMS CONSULTING PVT. LTD.**



Course Outline - Design Of Experiment (DOE)

### Feature:

The program will enable participants to implement and optimize processes or product by application of design of experiments. Step by step approach with practical example and exercises. The entire program involves manual method approach by hand as well as Minitab method. The program help optimize product characteristic as well as reduce cost of operation by optimizing process parameters. It's a simple program and does not have any pre required knowledge

## **Course Objective:**

- 1) Enable participant to optimize product characteristic / process parameter statistically
- 2) Understand type of experiments, its merit and demerits
- 3) Be conversant with terminologies used in design of experiment
- 4) Learn with software as well as manual method
- 5) Learn screening process when there are several factors

#### Who Should Attend?

People engaged in product and process development, optimization and improvement.

#### **Course Duration:**

1 Day

#### **Course Content:**

- 1) Introduction to DoE,
- 2) Limitation of conventional experiment (Ad Hoc and One Factor at A Time )
- 3) Type of Factorial design
- 4) Advantage of DOE
- 5) Terminology used in DOE
- 6) Main Effect Plot
- 7) Randomization & Blocking
- 8) Interaction between factors
- 9) Full Factorial Experiments
- 10) Balanced and Orthogonal Design
- 11) Factorial Design with Corner and Center Points
- 12) Screening method for DOE Plackett-Burman Design
- 13) Case study