

Design of Experiments (DOE)

In order to reveal an interaction or dependency the traditional approach of 'one change at a time' analysis relied heavily upon the process engineer taking the tests in the appropriate direction, which in itself can result in a flawed outcome. DOE methodology provides the ability to succinctly find solutions to the key contributing factors to a given problem and to aid in the determination of factors and actions which when implemented will result in a reduction in variation.

Design of Experiments (DOE) is a formal way in which to investigate and identify the relationships between key input factors and the response of a process resulting in improved optimisation and control. The methodology enables an organisation to conduct a series of tests and the resultant analysis of pre-defined outcomes can then be assessed in a controlled manner.

Course Features

- Design of Experiments (DOE) is a one-week course designed to assist organisations in improving performance, reducing costs and shortening production development timeframes.
- DOE focuses upon the identification and understanding of the relationships between key input factors and the response of a process resulting in improved optimisation and control.

Key Topics

- Recognising and understanding variability.
- Introduction and review of factorial and screening designs.
- Statistics underpinning DOE, including Correlation, Regression, and Standard error.
- Residual analysis and influence.
- Lack-of-fit tests and test method development.
- Selecting the "best" model.
- Dealing with an inadequate model.
- Analysing data sets.
- Optimising multiple responses.
- Applications including process optimisation and maximising process robustness.
- In-class experiment.

Who Should Attend?

Departmental Managers, Training Managers, Middle Managers, Quality Managers, Project Managers, Line Supervisors, Process Improvement Engineers, Engineers, IT Managers and Continuous Improvement Managers.

Certified Green Belts wishing to undertake training to complete the requirements for Black Belt Certification may sit for the examination at the successful completion of this module.

External 5 Day

On-Site 5 Day

Corporate Headquarters

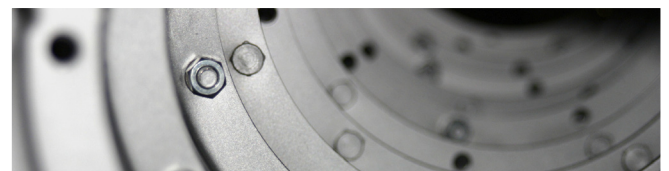
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