

DESIGN FOR MANUFACTURABILITY (DFM)

Introduction:

Design for Manufacturability (DFM) is the process of proactively designing products to optimize all the manufacturing functions and to assure the best cost, quality, reliability, regulatory compliance, safety, time-to-market, and customer satisfaction

DFM is a means of proactively addressing product issues early in the design cycle. It provides a means for integrating specific manufacturing concerns into a product's design to obtain a product that is easier to manufacture with excellent overall quality.

It is an approach that has scored dramatic success in facilitating designing of sound products with lowest costs and yet meet the Time-TO-Market and Customer Delight objectives.

Course Objectives:

The objective of this course is to provide a comprehensive methodology how DFM is being carried out and the various tools use to achieve DFM objectives.

Course Content:

1.0 Introduction

- 1.1 Design for Assembly/Design For Manufacturability
- 1.2 History of DFM
- 1.3 The needs for Design of Excellence

2.0 DFM Principles

- 2.1 Minimize number of parts
- 2.2 Standardization
- 2.3 Design for fit manufacturing process
- 2.4 Design for Eased of manufacturing
- 2.5 Maximize compliance
- 2.6 Reduce adjustments

3.0 Managing Design for Manufacturability and Excellence

- 3.1 Product realization process and obstacles
- 3.2 Concurrent Engineering
- 3.3 New Design Evaluation

4.0 DFM Metrics

- 4.1 Assembles Improvements guides
- 4.2 Individual parts Improvements
- 4.3 Design for Reliability
- 4.4 Design of Testability
- 4.5 Design for Safety
- 4.6 Design for Environment
- 4.7 Design for Short time-to-market

5.0 Tools and Techniques for DFM

- 5.1 Quality Function Deployment (QFD)
- 5.2 Pugh Concept for alternatives selection
- 5.3 Value Engineering and Value Analysis (VE/VA)
- 5.4 Design Failure Modes and Effects Analysis (DFMEA)
- 5.5 Taguchi Robust and Tolerance Design of Experiments
- 5.6 Poka Yoke/SPC
- 5.7 PDPC

Who Should Attend:

Design Engineers, Manufacturing Engineers, Project Leaders, Executives, Managers and Key People from Operations and Supply Chain Management or anyone who work on product development.

Award of Certificate:

Participants will be issued with a Certificate of Successful Completion upon meeting 75% of the required course attendance.

Duration:

2 days (14 hours)

Course Fee:

\$600 nett per trainee (GST is not applicable).

(Course fee is inclusive of all training materials and light refreshments.)