aCADemix ®

Transferring Technology...

Design Failure Modes & Effects Analysis (DFMEA)

COURSE

DFMEA

COURSE DESCRIPTION   **:** DFMEA

COURSE DURATION   **:** 6 hrs.

SYLLABUS

Module 1: Introduction
- Introduction
- Risks associated in mechanical design and need for DFMEA.
- What DFMEA accomplishes

Module 2: Basics of DFMEA
- Defining Failure modes
- Mechanical Phenomena of failure modes
- Cause, Effect and Root cause analysis
- Domains of underlying root causes
- Root cause Analysis - Example - Frame cracks
- Effects of failure and Examples
- Evaluation of Risk and Severity levels
- Occurrence
- Detection control and Design verification
- Grading of Occurrence
- Detection and its Grading
- Grading of severity
- Process of preparation of DFMEA

Module 3: Boundary Diagram
- What is B diagram? And its use.
- B diagram with Example 1
- B diagram with Example 2
- Exercise 01 - B diagram of a product.

Module 4: Parameter Diagram
- P Diagram with Example 1
- Why P diagram? And its use.
- P diagram details and Noise Factors
- Input, Output, Control parameters definitions
- P diagram of Product 1
- P diagram of Product 2
- Exercise 02 - P diagram of a product

Module 5: DFMEA of a product

- Format
- DFMEA of Part 1
- DFMEA of Part 2
- DFMEA of Part 3
- DFMEA of Part 4
- Assigning Severity Rating to Part 1 failure modes
- Assigning Occurrence ratings to Potential causes in Part 1
- Assigning Detection rating to Potential causes in Part 1
- Exercise 03 - Complete the DFMEA

Certificate:

On successful completion of the course and evaluation, the Certificate will be issued by aCADemix.

OTHER COURSES

SolidWorks 3D CAD

- SolidWorks-Basics
- SolidWorks-Advanced
- SolidWorks- Mold Design
- SolidWorks- Routing
- SolidWorks-Composer
- SolidWorks-MBD

SolidWorks Simulation

- SW Simulation Advanced
- SW Simulation-Fatigue FEA
- SW Simulation-Drop Test FEA
- SW Simulation-Dynamic FEA
- SolidWorks Motion
- SolidWorks Plastics

Design For Quality (DFQ)

- GD&T-Introduction
- GD&T-Advanced
- Tolerance Stack-Up Analysis

SolidWorks Automation

- SolidWorks API - Basics
- SolidWorks API - Advanced

SolidWorks PDM

- SolidWorks PDM- User
- SolidWorks PDM - Admin

SolidWorks PDM Automation

- SolidWorks PDM- Automation

Abaqus CAE

- Abaqus CAE – Linear Static Analysis