

# Reliability Academy

Reliability Engineering Training Courses

## FMEA

### Failure Modes and Effects Analysis

**Goal:** FMEA is the most important single tool for a Reliability Engineer. The course demonstrates the basic ideas of the FMEA method with most common variations. We will show the different types of FMEA's, such as Component, Functional, Design, Process and Interface FMEA. We will teach the most effective methods to complete an FMEA project.

#### 1. Overview: FMEA Analysis

- Background, Basic terms in Reliability Engineering
- FMEA project, steps

#### 2. FMEA Analysis Forms

- FMEA basic forms explained

#### 3. Component FMEA

- Component FMEA explained.
- Preparations for Component FMEA
- Component FMEA exercise

#### 4. Functional FMEA

- Functional FMEA explained
- Preparations for Functional FMEA
- Functional FMEA exercise

#### 5. Other FMEA types and Applications

- FMEA in electronics
- Design FMEA, Process FMEA, Interface FMEA, Software FMEA

#### 6. Failure Criticality

- Criticality classification scheme for failure effects
- FMEA in RAM analysis

#### 7. System improvement using FMEA

- what next after FMEA

#### 8. Summary

- Discussion and advice how to start an FMEA analysis project for an actual case.