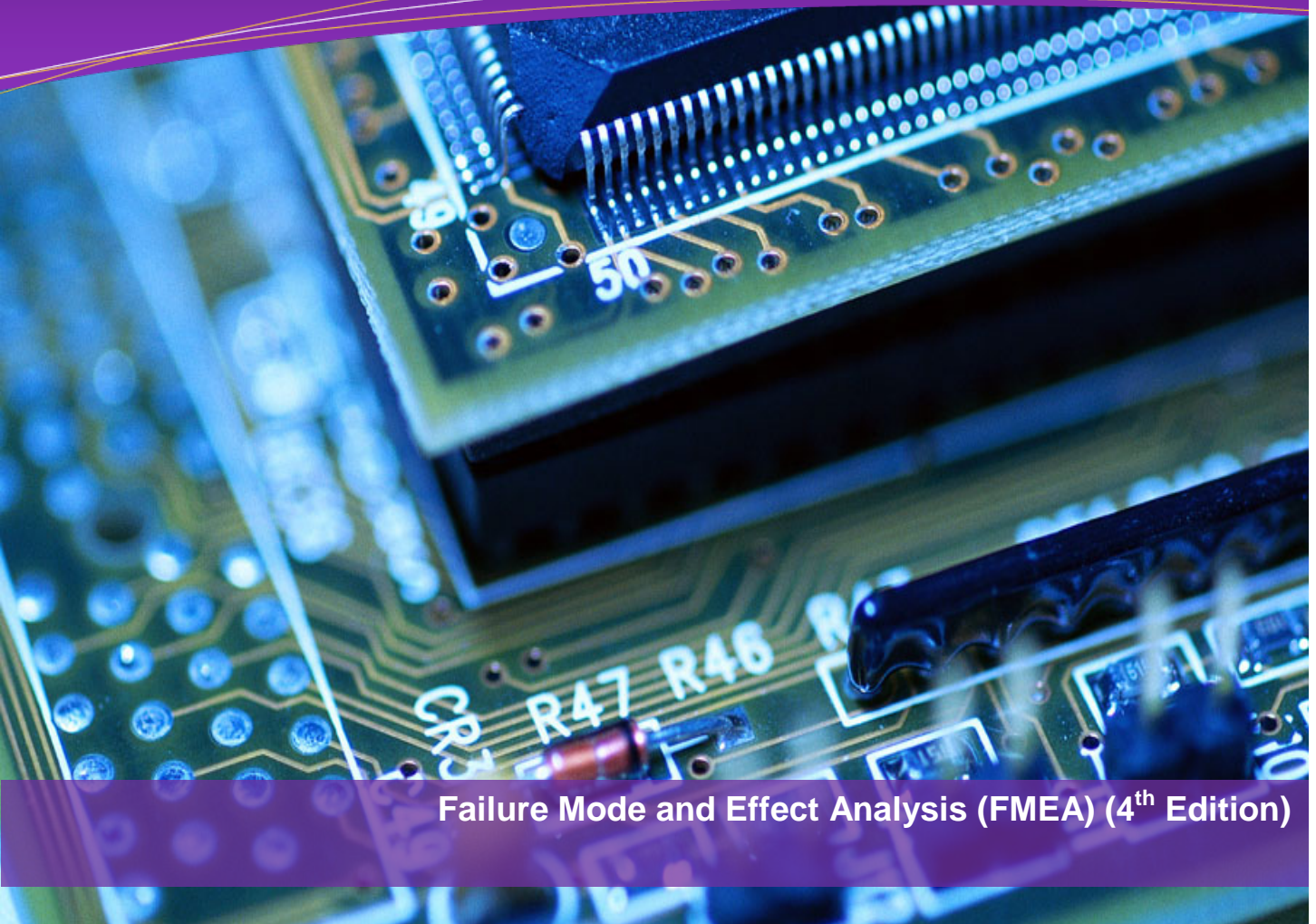


# Elco Learning & Knowledge Center

Building Capability to Learning Edge



## Failure Mode and Effect Analysis (FMEA) (4<sup>th</sup> Edition)

Potential FMEA is a risk analysis technique utilized by cross functional team members to assure potential failure modes (process or product) and their associated causes are identified to avoid unnecessary waste during mass production. This is crucial to increase organizational competitiveness and able to meet customer requirements right from the beginning. Furthermore, it is a proactive tool for continual improvement for both process and product.

## TS-108 Failure Mode and Effect Analysis (FMEA) (4<sup>th</sup> Edition)

### COURSE OBJECTIVES

The course has been designed to fulfill the following objectives:

- To understand the basic concepts, required tools & techniques of failure analysis & risk assessment for process design
- Enable participant to design the risk assessment model that is suitable for individual organization
- Able to implement process FMEA program effectively

### TRAINING APPROACH

This practical course combines classroom teaching, practical exercises, group discussion and case study with actual factory based projects to provide a complete action learning experience. The course has been designed to enable all participants leave the training with a set of new knowledge, tools, skills and direct experience of how to implement FMEA in a real company setting.

### HOW YOU WILL BENEFIT

- Able to master the complete techniques to carry out effective process FMEA
- Able to assess existing company system FMEA program that is suitable to your company manufacturing activities
- Able to lead and coordinate company FMEA program

### COURSE LEADER

The course leader is an experienced and qualified trainer. He is a practicing quality consultant. He is chosen for his proven industrial experience, technical competency, good communication skills and capability to understand the problem you face.

### WHO SHOULD ATTEND

This course is designed for managers, engineers, executives, supervisors, or anyone who wish to introduce FMEA for process and quality improvement.

### COURSE DURATION

This is a one day course running from 9.00am to 5.00pm.

## TS-108 Failure Mode and Effect Analysis (FMEA) (4<sup>th</sup> Edition)

### COURSE CONTENT

#### Section 1: Introduction to FMEA

- Traditional way to fix problem vs. FMEA
- Definition, basic concepts, purposes and benefits of FMEA
- Historical background and current applications
- FMEA development process flow
- Relationship between voice of customer and FMEA
- The timing for design & process FMEA in the development cycle

#### Section 2: Tools for failure modes analysis & planning for process FMEA

- Application of fault tree analysis (FTA) & its relationship with FMEA
- Procedure to carry out FTA
- Application of cause and effect diagram & its relationship with FMEA
- Steps to identify root causes by using cause & effect diagram and how to avoid some typical mistakes
- Steps to carry out effective brainstorming

#### Section 3: Tools for failure modes analysis & planning for process FMEA

- Factors to be considered during planning
- Responsibilities of FMEA coordinator
- Team approach
- Case study on how to apply the above mentioned tools

#### Section 4: Techniques for conducting process FMEA

- Techniques to identify potential failure mode, effects of failure, potential causes of failure and current control method.
- Basic understanding on the ranking of severity, occurrence and detection
- The application of relevant tools
- The design of ranking to quantify the risk that suitable for individual organization
- Typical mistakes and how to avoid
- Required follow up for effective implementation
- Case study



Elco Management Consultants Sdn Bhd

Email: [training@emc.com.my](mailto:training@emc.com.my)  
Website: [www.emc.com.my](http://www.emc.com.my)