# **TUV India Training Academy**

# Functional Safety Certified Professional – Level 1 In accordance with IEC 61508/ IEC 61511





# **Course Features**

New technologies and the increasing number of functions within products mean that manufacturers have to develop more and more safety-relevant systems. This not only leads to an increase in the number of electronic components - the components and systems themselves are more complex and requirements as to their safety are becoming more stringent. Safety standard IEC 61508 stipulates that organizations must ensure that persons entrusted with tasks related to functional safety have a sufficient level of competence and also that they are suitably qualified. Since the publication of IEC 61508, therefore, employers have been urgently seeking trained and qualified personnel who can demonstrate their competence and professionalism

Our 4 Day Training & Examination Programme provide detailed information, example and discussion for understanding and mastering the requirement of IEC 61508/ IEC 61511 Functional Safety

## **Course Objectives**

The Main Objective of the course is to provide each of the professionals to Design and Implement Functional Safety with applicable codes and Standard's with respect to IEC 61508 & 61511. The course provides the overview on the Safety requirement of the Plant with Respect to Process Safety, Risk Analysis, HAZOP, Design of Safety Instrumented system by Control Engineer with Installation, Commissioning, and Opera-

**Duration**: 4 Days

#### Registered & Head Office-

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#### **Course Contents**

- Introduction to Functional Safety.
- Safety Instrumented system(SIS)
- Basics of Functional Safety
- Safety Life Cycle Concept
- Safety Integrity Level
- SIL Assessment and Verification
- Process Hazard & Risk Analysis
- Risk Reduction Analysis Techniques
- Layer of Protection Analysis(LOPA), HAZOP, FMEA, FTA & ETA
- Tolerable Risk
- Safety Requirement Specification(SRS)
- Functional Safety Standards IEC 61508 & 61511
- Hardware Design
- Software Design
- Operation & Maintenance

#### Pre-requisite/Prior knowledge

- Minimum 3 years' experience in the field of Functional Safety and other related areas in the field of Safety.
- University degree either Masters' or Bachelor's in Engineering.

#### Who should attend?

- System Integrator and Engineering Consultant
- Control & Instrument Engineer
- Process Safety Engineer
- Manager of Engineering Department
- Loss Prevention Professional
- Plant Risk Analysts
- Reliability professionals
- Sales Manager and Engineer on Safety Products

### Certificate

Functional Safety Certified Professional" Level 1 – In accordance with IEC 61508/ IEC 61511

