

exida Can Show you the Way



Training Course: IEC 61508

The IEC61508 standard for functional safety of electrical / electronic and programmable electronic systems (including mechanical) explains the concepts of safety integrity levels, the safety lifecycle and many detail requirements needed to ensure functional safety. The standard is comprehensively reviewed and explained. Documentation requirements, project implications, and maintenance/operational implications are explained. Checklists and other implementation tools are presented.

Skills You Will Learn:

- ◇ Understand the scope and general requirements of IEC61508.
- ◇ Understand how to apply the safety lifecycle at a project level.
- ◇ Understand the basic requirements for product development.
- ◇ Understand software language requirements, test requirements and documentation requirements.
- ◇ Understand the concepts of FMEDA and probabilistic hardware analysis.

Course Topics:

- ◇ Introduction to IEC61508 Background
- ◇ Definitions
- ◇ The IEC61508 Safety Lifecycle Project Engineering Flowchart
- ◇ Exercise Safety Integrity Levels (SIL)
- ◇ Exercise Probabilistic, Evaluation Techniques
- ◇ Project Operations and Maintenance
- ◇ General Product Development Process Requirements
- ◇ Software
- ◇ Product Requirements,
- ◇ Product Requirements, Diagnostics
- ◇ FMEDA analysis
- ◇ Language, Requirements
- ◇ Development Tool Requirements
- ◇ IEC61508 Company Implementation

Who Should Attend:

- ◇ Control Engineers
- ◇ Safety Engineers
- ◇ Risk Analysts
- ◇ Safety Equipment Development Engineers

Length: 2 Days **Cost:** TBD

COURSE MATERIALS PROVIDED

Learning from the Experts



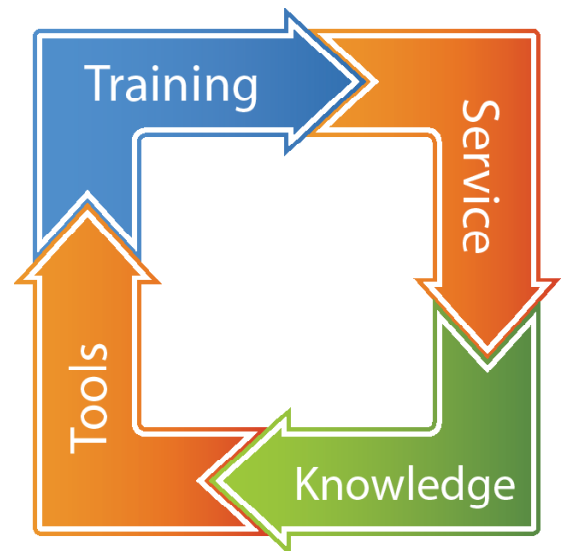
Experience has shown that most companies benefit from training as the first step in implementing a safety program. Having a solid up-front understanding of the Safety Life Cycle, the related standards and requirements for compliance, and the equipment selection and certification options ensures a focused and cost-effective safety initiative. And when you rely on exida for this knowledge, you gain access to some of the world's top experts in functional safety.

exida employees have written the books used for evaluating automation safety and reliability, they helped write the standards used for designing safe and secure systems, and they wrote many of the procedures used to certify the effectiveness of system hardware. They give the lectures and symposia that train industry's top professionals and present the latest developments. And since exida instructors are active safety professionals who participate in standards committees and provide professional safety services, the training reflects the most current and pressing issues.

exida delivers your training flexibly to accommodate your time and budget. Options include training courses delivered at your location, at an exida office, and through computer-based training modules. Example course topics include:

- The IEC 61508 and IEC 61511 Standards
- Hazard and Risk Analysis
- Safety Integrity Level (SIL) Selection
- Functional Safety Life Cycle Management
- CSFE (Certified Functional Safety Expert) preparation

exida also regularly publishes white papers and text books to facilitate learning on key topics, such as the best-selling book Safety Instrumented System Verification and the recently published book Final Elements and the IEC 61508 and 61511 Standards.



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