COURSE: Introduction to 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,
- Software Development Process, Hardware
- 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: 3 Days    Cost: $2095
**exida is excellence in dependable automation.**

The key to our ability to deliver the cutting edge and influential knowledge is our staff of world class experts. The staff of exida have pioneered the tools and procedures used around the world for the design, maintenance, installation, and operation of safety instrumented systems. We have written the textbooks that are used for teaching automation reliability. We helped write the standards that the world uses for designing safe automation systems. We wrote the procedures that certification agencies use to verify the effectiveness of safety system hardware. We developed the procedures that industry uses to select automation that is both safe and cost effective. We give the lectures and symposia that train the industry’s top professionals and present the latest developments. Nowhere else can you find the level of knowledge, expertise, and experience possessed by exida.

exida is able to provide a greater value than traditional consulting firms because of our sophisticated communication and delivery. In addition to traditional consulting, exida has leveraged the power of the internet to make knowledge transfer and sharing faster and more effective. Our internet virtual community contains resources and access to the world’s leading authorities on safety and highly available automation. Our knowledge is also available in on-line expert system applications that are hosted at our web site, so you are not required to install and maintain them. exida ensures that the information is current, correct, and available.

We are independent, yet tightly integrated with safety instrumented systems vendors. We are financially independent and neutral so that we are able to provide an objective third party evaluation. We also act as partners in their design processes and in some cases act as partners in the delivery of safety life cycle services for complete turn-key solutions. This duality allows us to offer the best of bothworlds to the end user.

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**Automation Users**

- Safety Function Identification
- Hazard/Risk Analysis
- Safety Integrity Level Selection / Tools
- Safety Integrity Level Verification / Tools
- Conceptual SIS Design
- Detailed SIS Design
- Pre-Startup Safety Review
- Operation & Maintenance Procedures
- Function Testing Market Analysis

**Automation Vendors**

- Market Analysis
- Requirements Tracking
- Product Certification
- Cyber Security Certification
- Industry Partner Program
- Brand Labeled Service
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