ABB Automation
Functional Safety

Are you new to the area of Functional Safety?

Are you involved in the design, development or operation of systems compliant with IEC-61511?

Are you interested in the architectures and technologies used to implement Integrated Control and Safety Systems (ICSS)?

Safety Instrumented Systems (SIS) are an essential aspect in the operation of today's process plants. Effective implementation and operation of a SIS according to good engineering practice requires a good understanding of how to apply standards. In addition, the practitioner needs a good grasp of issues from process engineering through to control systems technologies.

This holistic session covers the subject broadly, starting with overall concepts, through engineering lifecycle issues and concluding with the live demonstration of a real-time system.

Who should attend?
This session is aimed at engineers and others involved in Functional Safety.

Benefits of attending
– Introduction for those new to the subject
– Overview of HAZOP and other techniques
– Introduction to the regulatory and standards frameworks relevant to Functional Safety
– Insight into control systems technologies

Topics covered
– What is meant by safety and Functional Safety?
– Evolution of international standards with focus upon IEC 61508 and its derivatives
– Overview of techniques and measures from hazard

identification through to SIL (Safety Integrity Level) determination
– Explanation of the IEC-61511 lifecycle with emphasis upon the SRS (Safety Requirement Specification)
– Introduction to SIS technologies examining IEC-61508 SIL requirements
– Human Factor implications and abnormal situation management
– ICSS demonstration
    – Typical SIF (Safety Instrumented Function) with sensing, logic and actuation elements
    – Operator interface showing trip indication, reset and maintenance overrides
    – Alarm management
    – System diagnostics

Duration: 1 or 2 hour session followed by optional discussion session

Venue: ABB offices in Cambridgeshire, Aberdeen or customer location

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