eFunctionalSafety®

CB1 Business Centre | 20 Station Road
CAMBRIDGE, UK | CB1 2JD

Tel: +44 (0)1223 653 169
info@efunctionalsafety.com
www.eFunctionalSafety.com

SIS Design & Engineering

Course Code
eFF-SIS

This course has been fully updated to comply with BS EN 61511 edition 2:2017

A course aimed at all end users, engineering contractors and system integrators who need to understand the latest requirements of IEC 61511 edition 2 for both hardware and software.

The course outlines the whole SIS safety lifecycle, and then focuses participants on the latest requirements for SIS specification and design, up to and including SIS validation.

Participants will learn how to conduct SIL verification of basic SIF designs, including SIS equipment selection options, checking systematic capability, hardware fault tolerance and achieved probability of failure.

The completely new Application Program (AP) requirements of the latest standard are fully reviewed.

Course Tutor

Jon Keswick, Certified Functional Safety Expert.
With more than 25 years of safety system experience, Jon is an active consultant who works on functional safety related projects across multiple different sectors, including oil & gas, chemicals, pharmaceuticals, power generation and mining machinery. Jon provided CFSE and CFSP training for almost 10 years, and has taught hundreds of today's practising engineers about functional safety principles.

Latest Guidance

- The safety lifecycle according to BS EN 61511 edition 2:2017.
- Cyber security risk assessment of BPCS & SIS - the basics.
- Latest Hardware Fault Tolerance (HFT) rules.
- Application Program safety requirements.
- Application Program design & verification requirements.

Venue

On-site or hosted at CB1 Business Centre, Cambridge, UK. CB1 2JD.

Duration

2 working days.

Provided Materials

Printed Course Notes.

BOOKINGS: www.efunctionalsafety.com/training

Fundamentals

An overview of the full SIS safety lifecycle according to BS EN 61511 edition 2: 2017

SRS review

How to review safety requirements to ensure SIS design and engineering can proceed.

Hardware Design

SIS hardware design options, including PFDavg calculations and latest Hardware Fault Tolerance (HFT) requirements.

AP Design

Effective techniques for ensuring Application Programs (AP) specification and designs will conform to IEC 61511 edition 2.

Validation

Effective validation test planning and implementation procedures.