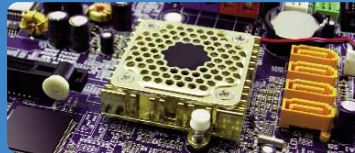
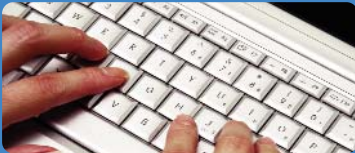


AccessERA



The second edition of the IEC 61508 standard 'Functional safety of electrical/electronic/programmable electronic safety-related systems', was published in April 2010. It outlines current best practice for all safety-related systems of an electromechanical nature, including solid-state electronic and computer-based systems. As electrical, electronic or programmable electronic systems increasingly carry out ever more complex safety functions, the requirements to comply with industry best practice for safety and to show due diligence is essential.

This course provides delegates with a clear understanding of the requirements and application of the revised IEC 61508, including an understanding of the relationships between all parts of the standard. Topics covered include implications for hardware and software design along with the key concepts relating to the achievement of functional safety such as hazard and risk assessment and the concept and derivation of Safety Integrity Levels (SILs).

Your programme

08.45 Registration and refreshments

09.00 Safety and Risk Concepts

- Concept of functional safety
- Basis of UK health and safety law
- Tolerability of risk.

Introduction to IEC 61508

- History of IEC 61508 and related standards
- Structure of the standard
- SIL and other key concepts
- Role of risk assessment.

Refreshments

IEC 61508 Part 1: general requirements

- The overall safety lifecycle
- Planning and managing the safety lifecycle
- Techniques for hazard analysis
- SILs and system architecture.

Introducing Parts 2 and 3: systematic integrity

- Outline of Parts 2 and 3
- Concepts: systematic and random failure
- Lifecycle requirements.

12.45 Lunch

Hardware and architectural safety: IEC 61508 Part 2 and guidance on the standard

- Architectural constraints
- Common cause failures
- Failure probabilities
- Basic architecture tables.

Software requirements: IEC 61508 Part 3 and guidance on the standard

- Overview of Part 3
- Importance of the software lifecycle
- Relationship to other parts of IEC 61508
- Safety analysis of software and other key issues for Part 3.

Refreshments

Managing Safety Critical System Development

- Assessment and evidence
- Competence
- Interactions with customers and suppliers
- Cost and common mistakes.

Discussion and Questions

- How does IEC 61508 affect your work?

17.30 Close.

Related courses

Software Safety: Software Development for Safety-Related Systems
14-15 September 2011

Hazard and Risk Analysis for Safety-Related Systems
4-5 October 2011

For more information please visit
<http://shop.era.co.uk>

Siemens, spring delegate 2011

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Your speakers



Stephen Hatton - Consultant Safety Engineer, ERA Technology Ltd

Since joining ERA Technology sixteen years ago, Stephen has had extensive experience of safety assessment of electronic and programmable electronic systems, focusing particularly on programmable logic controller based systems. He has also made key contributions to the development of the IET's SEMSPLC Guidelines (Safety-Related Application Software for Programmable Logic Controllers) and Competency Guidelines for Safety-Related System Practitioners.



William Marsh - Lecturer, School of Electronic Engineering and Computer Science, Queen Mary, University of London

William has been working in the field of software and systems safety and dependability since 1989. He proffers experience in the development of tools and techniques for static analysis of safe subsets of programming languages. He has audited a number of safety-related software projects, as well as conducting research into new techniques.

Booking form

Please photocopy this form if you wish to register more than one delegate. Send a second person at a discounted price!

Delegate details

Name <small>Dr Mr Mrs Miss</small>
Job Title
Organisation
Address
Postcode
Telephone
Fax
E-mail
VAT number (EU customers only)
<input type="checkbox"/> Please tick if you are happy to receive further information about ERA Technology Ltd via e-mail. It is our policy NOT to supply your details to third parties.

Bookings

I wish to make a firm booking for:

An Introduction to IEC 61508

13 September 2011 Ref: 31127 17 April 2012 Ref: 31208

Fees*

Fee rate	Fee	VAT@20%	Total	Please tick
Early Booking Rate	£432.00	£86.40	£518.40	
Standard Rate	£480.00	£96.00	£576.00	

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Additional booking rates:

Additional booking rates are applicable to second and subsequent delegates and may only be claimed at the time of booking.

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- +44 (0)1372 367321*
- The Events Team, ERA Technology Ltd, Cleeve Road, Leatherhead, Surrey KT22 7SA.

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