

21-22 October 2015 (Leatherhead)



## Hazard and risk analysis for Safety-related systems

Hazard and risk identification, management, analysis and mitigation are all disciplines employed to ensure the operational safety of complex systems performing safety-related functions. When implemented in a detailed safety life cycle that starts with the design stage, these methods can ensure smooth operation and compliance with safety legislation. Failure to meet the legislative and regulatory safety requirements concerned with these systems can result in heavy penalties which are both costly and counter-productive to business. This course explains the techniques for ensuring operational safety as well as covering safety planning requirements. Interactive workshops allow delegates to put into practice the techniques learnt.

### Your programme

#### Day One

08.45 Registration and refreshments

09.00 Introduction

##### Basic concepts and definitions

- Definitions of hazard, accident, risk and safety.

##### Basic concepts exercise

##### Introduction to risk

- History and legal background
- Tolerability
- Public perception and acceptance.

Refreshments

##### The safety life cycle

- Steps in the safety life cycle
- Relation to the development life cycle
- Safety planning.

##### Safety planning exercise

12.45 Lunch

##### Preliminary Hazard Analysis (PHA)

- Hazard and accident identification and analysis
- Fixing the system boundary and scoping the analysis
- PHA techniques
- Who should get involved?
- Introducing accident sequences.

##### PHA exercise

Refreshments

##### Safety requirements

- Understanding the different safety requirements
- Safety functions
- Safety integrity
- Safety targets
- Determination of requirements.

##### Summary

17.00 Close.

#### Day Two

08.45 Refreshments

09.00 Overview of day two

##### Risk assessment

- Risk estimation techniques
- Risk matrix
- Limitations and alternatives.

Refreshments

##### Risk assessment exercise

13.15 Lunch

##### Hazard management

- Assessing risks through the safety life cycle
- Using a hazard log to manage risk
- Problems with hazard logs
- Hazard closure
- Incident reporting and corrective action tracking.

Refreshments

##### Safety arguments and safety cases

- Basis of a safety argument
- Preparing a safety case document
- The implications of the Haddon-Cave report.

##### Summary and questions

16.00 Close.

## Your Speakers



**David Annas**  
Principal Safety Engineer  
Edif ERA



**Colin Barnett**  
Principal Safety Engineer  
Edif ERA



**Andrew Armstrong**  
Principal Safety Consultant  
Edif ERA



**Simon Goodchild**  
Principal Safety Engineer  
Edif ERA

## 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 Dr Mr Mrs Miss
Job title
Organisation
Address
Postcode
Telephone
Fax
E-mail
VAT Number (EU customers only)

### Bookings

I wish to make a firm booking for:

#### Hazard and Risk Analysis for Safety-Related Systems

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### Fees\*

Fee rate	Fee	VAT@20% <sup>†</sup>	Total	Please Tick
<b>Early booking rate</b>	£720.00	£144.00	£864.00	
<b>Standard rate</b>	£800.00	£160.00	£960.00	

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Access/American Express/Delta/Diners Club/Eurocard/Mastercard/Switch/Visa

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Your course will take place at the Edif ERA Training Centre, Cleeve Road, Leatherhead, Surrey, KT22 7SA, UK. It is a 15-minute walk from Leatherhead main-line station. Visitor car parking is available on-site. A location map is available at: <http://www.edifgroup.com/contact/edif-era-uk-surrey-head-office>.

### Early booking rates:

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### Enquiries:

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### How to pay:

Payment must be made before attendance at the event and must be made in £ sterling only. Acceptable methods of payment are by cheque (payable to ERA Technology Ltd), credit card or bank transfer. Bank transfers, free of all charges, can be made to ERA Technology Ltd via: HSBC, 9 The Boulevard, Crawley, RH10 1UT; sort code: 40-18-22, account no. 22178095. When paying by bank transfer, please quote the relevant course, course date and the delegate and company name.

### Cancellations and transfers:

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### Edif ERA:

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