



## RINA Training Courses 2018

RINA courses are presented by our own specialist engineers who have many years' experience in their subject areas, gained from working on numerous projects and plant, across all sectors of industry. Training courses can be delivered in either standard or tailored formats to meet your specific requirements. We can also run the courses at your site, to save you travel costs and time.

RINA offers a regular programme of CPD-certified training courses to help its customers maintain and develop technical excellence. Our training courses provide an authoritative, interactive route to improving your knowledge and expertise. For many of our customers, these courses have become a fundamental part of their organisations' training.

### APRIL 2018

#### 17 Leatherhead **NEW!**

##### **Hazardous chemicals in hardware products – a practical approach to compliance**

Experts in RoHS and REACH legislation guide delegates through the legal obligations of these EU regulations. The course focuses on RoHS compliance and supplier assessment using EN 50581 and also on where RoHS substances are used.

### MAY 2018

#### 23 Leatherhead

##### **Introduction to lightning protection**

Ideal for those involved in the protection of infrastructure and electrical systems, this course covers both the science behind lightning and the methods by which protection may be achieved. Designing, testing, earthing and bonding techniques as well as lightning standards are explored in this thorough introduction.

#### 24 Leatherhead

##### **An introduction to earthing design **NEW!****

This course introduces delegates to basic earthing concepts to lead them through a typical earthing design for a high-voltage installation. It aims to provide an overview of this critical subject for those involved with the design, construction and maintenance of high-voltage installations.

### JUNE 2018

#### 5 Leatherhead

##### **Common Safety Method: Contributor competence**

This one-day workshop provides essential understanding for engineers associated with UK and EU projects that bring about changes to the rail industry and who wish to understand how the CSM should be applied. It provides a background to the legal obligations for compliance and practical guidance on how compliance for straightforward projects should be approached. A short e-learning course is included for delegates to complete before the workshop.

#### 12 - 13 Leatherhead **NEW!**

##### **Common Safety Method: Practitioner competence**

Following on from the two-day workshop, which should be completed before attending this course, this two-day, workshop-based training addresses the means of complying with the CSM Regulation where projects present complexity and/or novelty. It builds upon the foundations laid in the one-day course and provides a detailed approach to compliance for non-straightforward projects, taught through consideration of a realistic project scenario.

#### 27 Leatherhead

##### **Understanding safety cases: Development, maintenance and your responsibilities**

A must for anyone who is involved in the development and management of a safety case or safety case report, this course explains the reasons for a safety case and offers a variety of methods for producing one effectively. A risk assessment and ALARP workshop reinforce the material covered. The course is aimed at all those who have involvement in a safety case, from those responsible for developing and managing one, to those required to accept a safety case as a deliverable from a contractor. The course provides managers with the knowledge to recognise if a safety case is complete.

### SEPTEMBER 2018

#### 19 - 20 Leatherhead

##### **Software safety: Software development for safety-related systems**

Techniques are honed and exercised in this two-day course which tackles the analysis of potential safety issues and the creation of safety arguments within the framework of software development for safety-related systems. The course adopts a predominantly civil aviation and defence perspective.

## SEPTEMBER 2018

### 25 - 26 Leatherhead

#### Power system earthing

Encompassing all aspects of earthing, from standards and safety criteria through to earth grid design, fault current distribution and earth resistance measurement and interpretation, this two-day course delivers a comprehensive introduction to the subject. In addition to the theoretical content, the course also includes a series of invaluable practical sessions.

### 27 Leatherhead

#### Successful design and selection of HV cable systems **NEW!**

Early life failures of HV cable systems can, at times, be attributed to mistakes or omissions in cable system specifications. This RINA Consulting training course will help delegates avoid common pitfalls by learning from the mistakes of others. In addition to drawing on the presenters' extensive experience of cable system failures, the course will cover the essential aspects of cable design, cable selection and procurement together with key aspects of cable ratings, fault capacity and cable bonding systems. The course will cover HV cable systems from 11 kV to 132 kV.

## OCTOBER 2018

### 2 Leatherhead

#### Understanding failure analysis investigation

An extensive introduction to a spectrum of failures, ranging from metallic and electronic components, to plastics and gas turbines. Attendees discover techniques for analysis via a group exercise and a demonstration of scanning electron microscopy as well as advice on how to fully capitalise on the results from post-failure studies.

### 16 Leatherhead

#### An introduction to earthing, lightning protection and EMC requirements for a building **NEW!**

The subjects of earthing, lightning protection and EMC are critical aspects of building design although they are often misunderstood. This one-day course demystifies the three areas, covering the main technical requirements and design aspects and how these can be managed to achieve an effective and coordinated design.

### 17 - 18 Leatherhead

#### Hazard and risk analysis for safety-related systems

Intensive and interactive, this two-day course has a strong practical element, covering techniques such as Preliminary Hazards Analysis (PHA), Hazard and Operability Study (HAZOPS), Failure Modes and Effects Analysis (FMEA) as well as safety planning requirements. This course explains the techniques for ensuring operational safety.

## NOVEMBER 2018

### 13 Leatherhead

#### Common Safety Method: Contributor competence

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### 14 - 15 Conference - Heathrow Terminal 4

#### Electrical and electronic equipment and the environment 2018: Meeting the technical and regulatory compliance challenges

This globally renowned, two-day event covers all environment-related regulatory compliance issues which apply to hardware products. For over 20 years, the conference has been presenting the latest on RoHS2, REACH, WEEE, ecodesign and conflict minerals. Our invited speaker panel is drawn from policy makers in the EU and UK governments and experts from industry, consumer electronics, defence and law enforcement. Join the debate on the prevalent critical issues surrounding environmental product regulation and their effect on electrical products, from materials through to design, use and end-of-life.

### 21 - 22 Leatherhead **NEW!**

#### Common Safety Method: Practitioner competence

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#### In-company training

In-company training for your company – off-the-shelf or customised into a solution that fits in with your requirements. You choose when and where you wish the training to take place – at your organisation in the UK or overseas, a venue close to you or at RINA Consulting's training centre. Contact the Training Team for more information.

#### ASME and API certified courses

RINA is a market leader in the provision of ASME and API inspector training courses, offering specialised training for the inspection of pressure systems and mechanical plant. The company is an authorised global training provider for the American Society of Mechanical Engineers (ASME). For more information on the range of ASME and API courses we offer, please contact the Training Team.



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