Course Title Corrosion Training Programme

Course Dates 24 - 28 November 2014

Fee Payable ☐ 1 Day £290 ☐ 2 Day £580 ☐ 3 Day £870 ☐ 4 Day £1130 ☐ 5 Day £1400 Discounts available for members of professional bodies and group bookings of 5 or more

Delegate's details ☐ Mr ☐ Mrs ☐ Miss ☐ Dr ☐ Other, please specify

First name **Surname**

Job title

Email **Nationality**

Organisation name

Organisation address

Town **County/Region**

Country **Postcode/Zipcode**

Direct line telephone number and fax

Country code	Area code	Telephone number	Ext: no	Fax no

Cancellations and substitutions

All cancellations must be notified in writing to the Academic Operations Unit 2 weeks prior to start date and will be refunded in full. After that date, refunds will only be issued in exceptional circumstances. However, the organisers will accept substitutions provided that written notification is received.

☐ **Data protection**

Please tick this box if you do not wish your details to be held by Cranfield University for the purpose of marketing courses, conferences, research programmes and other associated activities.

Authorisation of Payment / Invoice details (if different from the above)

I have read and I accept the Booking Conditions and understand that upon confirmation of this booking I/the organisation will become liable for all charges including cancellation and transfer charges if applicable.

Contact name Purchase order no (if applicable)

Full Address

Address

Postcode (if in UK) Email:

Telephone (inc code) Fax:

Credit card payment If you would like to pay by credit card, please complete the following

Card type ☐ Mastercard ☐ VISA ☐ American Express please specify

Card number ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ Expiry date ☐☐ ☐☐

Total amount payable _____ **3-digit security code** (on reverse of card) ☐☐☐

Cardholder name

Cardholder address

Cardholder or authorised signature

Complete and return this registration form to: Academic Operations Unit, Cranfield University, FREEPOST BF463, Bedfordshire, MK43 0AL UK.

The Training Team

Dr Mike Robinson (MJR) is a Corrosion Specialist at Cranfield University. Mike has over twenty years experience of organising and presenting corrosion courses for the oil and gas industry, both in this country and overseas. His research interests include microbial corrosion, stress corrosion cracking, hydrogen embrittlement and cathodic protection.

Professor John Nicolls (JRN) Professor of Coatings Technology and Director of the National High Temperature Surface Engineering Research Centre (NHTSEC) at Cranfield University.

Professor John Sharp (JVS) is Visiting Professor to the Offshore Technology Group at Cranfield University. John formerly worked for the Health & Safety Executive, where he was Head of Research in the Offshore Safety Division (OSD). His main expertise is in the field of materials and structural integrity related to the offshore industry.

Dr Clare Watt (CW) is currently a Senior Integrity Engineer with CRN International a global oil and gas operator. Clare has previously worked for ExxonMobil as the UK Corrosion Integrity Advisor and as a consultant specialising in projects for the oil and gas, defence and nuclear industries.

Research and Consultancy

Cranfield University has considerable expertise in the area of corrosion. We are able to undertake research and consultancy programmes for clients. Cranfield is also able to offer bespoke training programmes. For further details about how we can assist your organisation please contact:

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The Queen's Anniversary Prizes
For Higher and Further Education
2011

Contact

For further details including registration information please contact:

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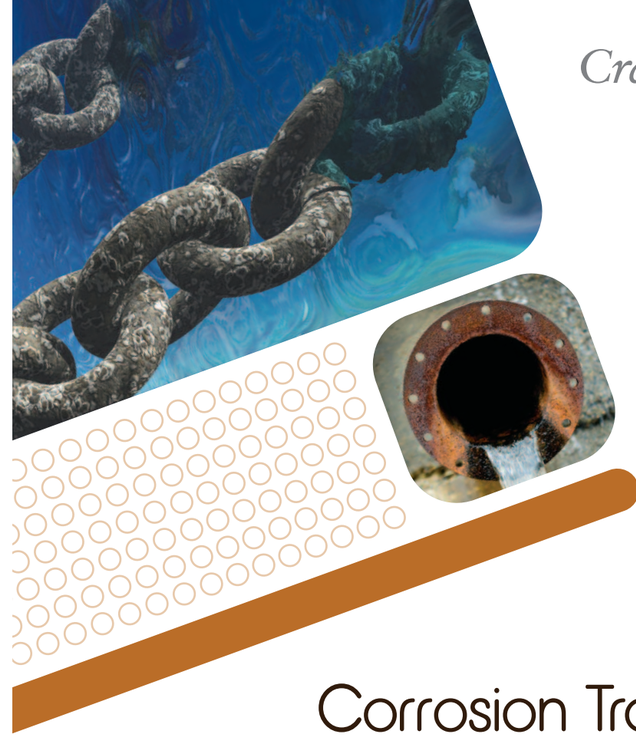

Cranfield UNIVERSITY

Corrosion Training Programme

At Cranfield University

24-28 November 2014

www.cranfield.ac.uk/courses/training/corrosion-training-programme.html

Introduction

Cranfield University offers a series of one-day specialist training courses that can be linked to form a 5-day short course covering various aspects of corrosion, its monitoring and prevention.

Courses are delivered through lectures and group exercises by a combination of subject specialists from the academic community at Cranfield, and industrial practitioners. Delegates receive full course notes which complement the lectures and provide an invaluable reference tool in the workplace.

Who should attend

This postgraduate level training programme is aimed at design and maintenance engineers, and technical staff from a wide range of industries including the offshore, water and aeronautical sectors. Days 1, 2 and 5 will provide an understanding of the principles of corrosion and its control. The full 5 day course will meet the training needs of individuals in the offshore sector.

Corrosion Training Programme

Day 1 Fundamentals of Corrosion 1
- Principles of aqueous corrosion
- Corrosion kinetics

Day 2 Fundamentals of Corrosion 2
- Corrosion in aerated environments
- Pitting corrosion
- Crevice corrosion
- High temperature oxidation
- Stress corrosion cracking

Day 3 Offshore Corrosion
- H_2S corrosion
- Microbial corrosion
- Hydrogen embrittlement
- Corrosion fatigue
- CO_2 corrosion

Day 4 Corrosion Control Offshore
- Stainless steels
- Inhibitors
- Cathodic protection
- Cathodic protection exercises
- Overview of offshore corrosion

Day 5 Corrosion Monitoring
- Corrosion monitoring
- Service failures
- Industrial case studies

Corrosion module timetable

Monday 24 November 2014 Fundamentals of Corrosion 1	Tuesday 25November 2014 Fundamentals of Corrosion 2	Wednesday 26 November 2014 Offshore Corrosion	Thursday 27 December 2014 Corrosion Control Offshore	Friday 28 December 2014 Corrosion Monitoring
9.00 - 10.00 Principles of Aqueous Corrosion MJR	9.00 - 10.00 High Temperature Oxidation JRN	9.00 - 10.00 Microbial Corrosion MJR	9.00 - 10.00 Stainless Steels MJR	9.00 - 10.00 Corrosion Monitoring MJR
10.00 - 11.00 Principles of Aqueous Corrosion MJR	10.00 - 11.00 High Temperature Corrosion JRN	10.00 - 11.00 H_2S Corrosion MJR	10.00 - 11.00 Inhibitors MJR	10.00 - 11.00 Service Failures MJR
11.30 - 12.30 Corrosion Kinetics MJR	11.30 - 12.30 Pitting Corrosion MJR	11.30 - 12.30 Hydrogen Embrittlement MJR	11.30 - 12.30 Cathodic Protection MJR	11.30 - 12.30 Service Failures MJR
lunch	**lunch**	**lunch**	**lunch**	**lunch**
14.00 - 15.00 Corrosion Kinetics MJR	14.00 - 15.00 Crevice Corrosion MJR	14.00 - 15.00 Corrosion Fatigue JVS	14.00 - 15.00 Overview of Corrosion Offshore CW	14.00 - 15.00 Case Studies MJR
15.00 - 16.00 Passivity MJR	15.00 - 16.00 Stress Corrosion Cracking MJR	15.00 - 16.00 CO_2 Corrosion MJR	15.00 - 16.00 Cathodic Protection Exercise MJR	
16.30 - 17.30 Videos MJR	16.30 - 17.30 Corrosion Exercises and Presentaions MJR	16.30 - 17.30 Videos MJR	16.30 - 17.30 Cathodic Protection Exercise MJR	
			Programme Dinner	

Note: Cranfield University reserves the right to change the programme without prior notification.

(MJR) Dr Mike Robinson (JRN) Professor John Nicolls (JVS) Professor John Sharp (CW) Dr Clare Watt