



Introduction to the

INSTITUTE OF CORROSION

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MSc, MICorr, CEng

On behalf of



ICorr Aberdeen



Aberdeen University

12/09/2018

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About Corrosion



Humber Estuary Killingholme UK – April 16, 2001 (Erosion Corrosion, Refinery, USD 82,400,000)

The Health and Safety Executive report <http://www.hse.gov.uk/comah/conocophillips.pdf>

About Corrosion



Corrosion costs (general):

- 276 billion USD per year for total direct cost of corrosion in the United States; equivalent to 3.1% of GDP.

(Source: NACE – The Worldwide Corrosion Authority.)

- Corrosion cost to the UK is about 4% of GDP

(Source: Institute of Corrosion, ICorr, U.K.)



Corrosion costs (Oil and Gas industry):

- 7 billion USD per year for gas and liquid transmission pipelines.
- 1.4 billion USD per year for oil and gas exploration production.

About Corrosion

Consequences of Corrosion:

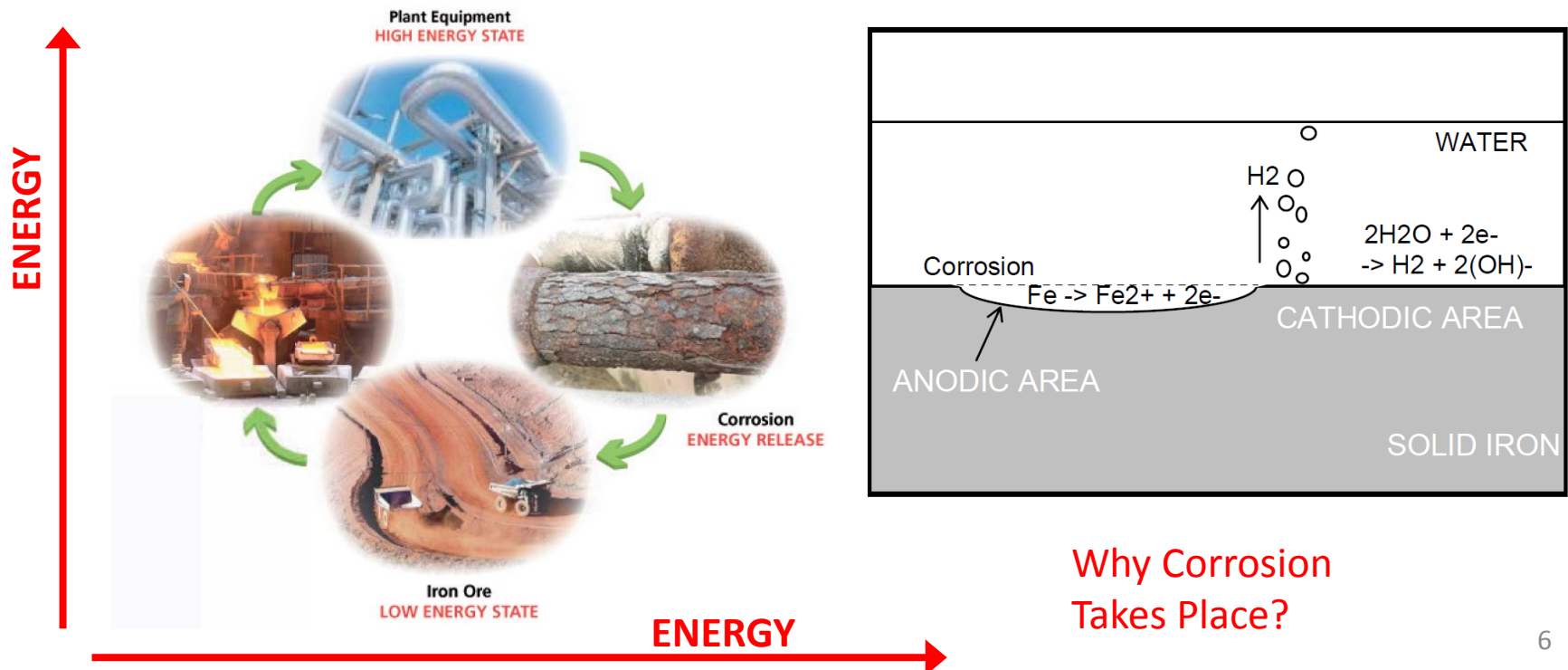
- Hazards or injuries to people
- Environmental impact due to leakage from vessels and pipes
- Loss of mechanical strength leading to structural failure or breakdown
- Loss of time in availability of industrial equipment
- Reputational damage



About Corrosion

What is Corrosion?

- Corrosion is the deterioration of a substance, usually a metal, or its properties because of a reaction with its environment. (Source: National Association of Corrosion Engineers)
- Physicochemical interaction between a metal and its environment which results in changes in the properties of the metal and which may often lead to impairment of the function of the metal, the environment, or the technical system of which these form a part. (ISO 8044)



About Corrosion

Corrosion Triangle:

WATER



CORRODENT



Corrosion Control:

METAL

METAL + WATER + CORRODENT = CORROSION

~~METAL~~ + WATER + CORRODENT = NO CORROSION

METAL + ~~WATER~~ + CORRODENT = NO CORROSION

METAL + WATER + ~~CORRODENT~~ = NO CORROSION

Design the material

Control the environment
Design a barrier

About Corrosion



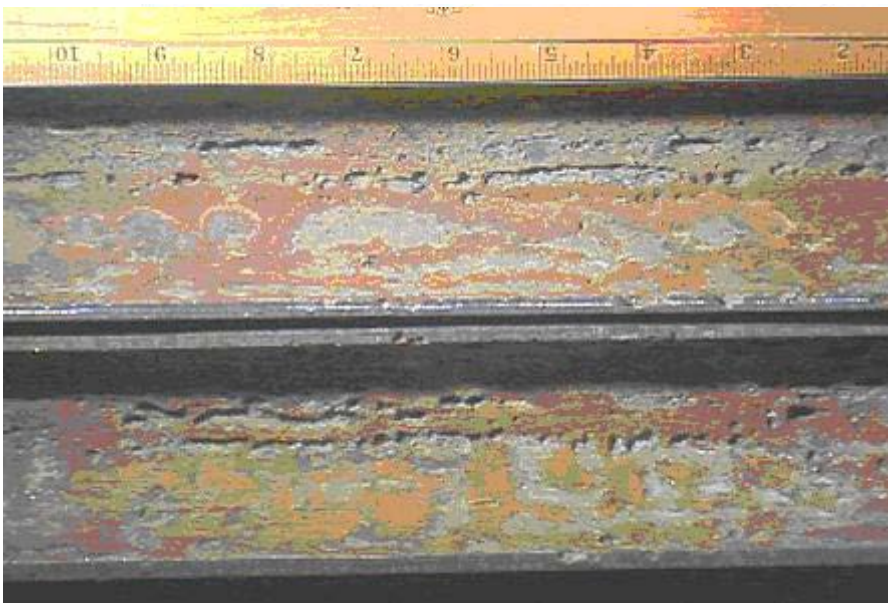
Corrosion Control Engineering

Factor	Controlling Method	Barrier	Controller
Conductivity	Stop/slowdown electrons	Non-conducting coat/paint	Coating/Painting Engineer/Inspector
Conductivity	Reduce conductivity	Keep the process dry	Process Engineer
Electrochemical reaction	Apply current	Cathodic protection	CP Engineer/Inspector
Oxygen	Stop/slowdown Oxygen	Barrier coating/paint	Coating/Painting Engineer/Inspector
Anodic reaction	Electronegativity	Corrosion resistant metal	Material/Corrosion Engineer
Electrochemical reaction	Stop/ reduce reaction rate	Corrosion inhibitor	Chemical/Corrosion Engineer
Electrochemical reaction	Stop/ reduce reaction rate	Passive layer	Material/Corrosion Engineer

About Corrosion

Types of corrosion

- There are more than 45 types of failure mechanisms in 5 categories as per API 571 only in oil and gas industries
- **Mechanical and Metallurgical**
- **Uniform or Localized Loss of Thickness**
- **High Temperature Corrosion**



Brittle fracture
Microbially induced Corrosion
Stress Corrosion Cracking
Oxidation

CO₂ Corrosion
Erosion

About Icorr



ICorr (<http://www.icorr.org/>) is a learned society and registered charity that has been serving the corrosion science, technology and engineering community since



Galloway Award

This award was created in 1998 in memory of Jack Galloway, a founder member of the British Association of Corrosion Engineers (BACE) from which the Institute of Corrosion derived, to encourage contributions from students working in any area of corrosion science and corrosion engineering.

Students are invited to submit a short technical article discussing their work for consideration for the award. This should be 3000-5000 words in length and may include figures as appropriate. The winning article will be published in Corrosion Management, and the prize consists of a certificate and a cheque for £250. The Institute does not retain copyright of the material, so this does not prevent subsequent publication of the work in a scientific journal if students wish to offer a snapshot of an ongoing project, or work towards a thesis.

The winner is also invited to present their work at the annual Corrosion Science Symposium. Submissions should be sent via email at any time to the CSD Chair.

Membership

About ICorr



Technical divisions:

- Corrosion Science Division
 - ✓ Corrosion Symposium (10/11 September 2018- 59th Corrosion Science Symposium)
- Corrosion Engineering Division
 - ✓ Forums
 - ✓ Working groups (Cathodic protection - Nuclear - Coatings - Oilfield chemicals - Water treatment - Corrosion in Concrete)

Regional Branches:

Aberdeen, London, Midlands, Northeast, Northwest, and Yorkshire.

Technical questions

[Back to Forums](#) : [Register](#) : [Login](#)

TOPIC TITLE	LAST POST	REPLIES	VIEWS
316 Ti Stainless corrosion due to chlorine any information on the exposure limits of 316 Ti to chlorine residue before causing reduced life?		-	7099
Is there a difference between painting and coating inspector	by: dgfjgh Wed 24th Aug 2016	4	742
Corrosion Inhibitor Tank Will a corrosion inhibitor offer suitable corrosion protection on its own in a carbon steel corrosion inhibitor tank or would additional protection be required, "internal lining"?	by: mekh Thu 17th Sep 2015	4	4707
TSA vs Protective Coatings All, I'm challenged with; 'what is the most cost effective corrosion protection system between TSA and other protective coating systems operating in an offshore environment?' what would your answer be?	by: jithkriz Thu 16th Jul 2015	2	491
Corrosion due to ground waters Hi all, I was wondering if anyone could recommend a good article on corrosion by groundwaters, specifically some estimated limits of composition as regards, sulphate, nitrate, pH, alkalinity, hardness, etc. to be way of when making a corrosivity assessme	by: winnieie Thu 9th Jul 2015	1	-
cathodic shielding could any one tell me which standards specially are about cathodic shielding and preventing methods?	by: malik.boumnejel Tue 8th Oct 2013	1	4727
cathodic shielding I'm interested in getting some information about cathodic shielding	by: anticorrosionpaint Fri 12th Oct 2012	1	3683
Microbiologically Induced Corrosion Looking for further details of MIC particularly when seen in sea water etc	by: henry tan Tue 23rd Jul 2013	2	4164

About ICorr



Continued Professional Development (CPD)

➤ CPD refers to the process of tracking and documenting the skills, knowledge and experience that you gain both formally and informally in order to help you in your professional career progression.


- Self-study
- Work experience
- professional mentoring of colleagues or others
- Academic study
- Training courses
- Events and seminar

➤ CPD Requirements for Chartered Engineers/ scientists in UK
All Engineering Council registrants make a commitment to maintain and enhance their competence. In practice, this means undertaking Continuing Professional Development (CPD).

- **Chartered Scientist or**
- **Chartered Engineer**

➤ The Institute of Corrosion has developed a mentoring program to assist its members to achieve their Chartered Status.

➤ mycareerpath® (CPD record database)
An online professional development system.



**CONTINUING PROFESSIONAL DEVELOPMENT
ICORR ABERDEEN BRANCH**

COURSE BY THE INSTITUTE OF CORROSION
ON THE 14th AUGUST 2018, 8:45-16:30

ICORR CORROSION AWARENESS DAY (ABERDEEN)

<ol style="list-style-type: none">1. Principles and Costs of Corrosion2. Corrosion Rate Modelling3. Chemistry and Microbiology – Analysis and Data Trending4. Corrosion Mitigation by Cathodic Protection5. Corrosion Mitigation by Coatings and Materials Selection6. Corrosion Management and Risk Based Inspection7. The Role of Advanced Instrumentation in PIM8. Emerson Process Equipment Demonstrations	<p>Dr Odagboy Philip Eneghela (REPSOL) Dr Muhammad Ejaz (PIM) Dr Carol Devine (ICR Integrity) Dr Nigel Owen (Aberdeen Foundries) Alistair Seton (IAS Consulting UK Ltd) Hooman Takhtehian (Oceaneering) Chris Burke (Emerson) Chris Burke & Fiona Butters John Thompson & Steven Healy (Emerson)</p>
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ATTENDEE: Joseph McCabe

VERIFIED BY: STEPHEN TATE (ICORR ABERDEEN CAD CHAIRMAN)
Stephen J. Tate

The British Association of Corrosion Engineers, now the Institute of Corrosion was founded in 1959 to promote the dissemination of technical information about corrosion matters and to develop by means of social activities, the free interchange of information among members, establish suitable qualifications for corrosion engineers, and promote of standardisation in the terminology and techniques of corrosion control.

The Institute of Corrosion is recognised by the *Institute of Materials, Minerals and Mining (IOM)*, *British Institute of NDT (BINDT)* and by the *Institute of Marine Engineering, Science and Technology (IMarEST)* as offering technical presentations that contribute to an individual member's Professional Development requirements

<http://www.icorr.org/branches/aberdeen.phtml>

About ICorr



Training and Qualification

- ICorr Certification Scheme
 - Painting Inspector (Level 1/2/3)
 - Coating Inspector (Level 1/2)
 - Pipeline Coatings Inspector
 - Insulation Inspector
 - Fire Proofing Inspector
- Cathodic Protection (CP) Certification Scheme,
 - Cathodic Protection Technician (Level 1/2/3)
 - professional mentoring of colleagues or others,
 - attendance at conferences.



ICorr (Aberdeen Section)



2018-2019 Session Committee

Chair: Dr. Yunnan Gao

Vice Chair and Secretary (External): Stephen Tate

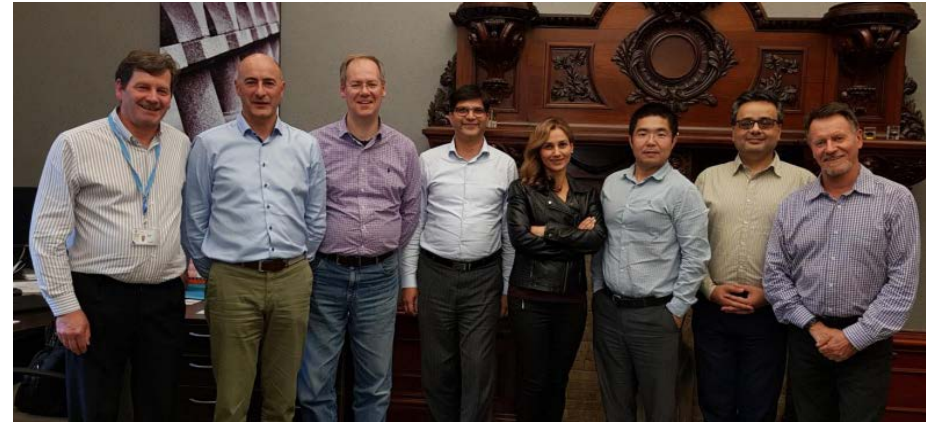
Secretary (Internal) : Dr. Nigel Owen

Finance Officer: Alistair Seton

Event Co-ordinator: Amir Attarchi

University Liaison and CPD Officer: Zahra Lotfi

Committee Member: Bryn Roberts, Dr. Muhammad Ejaz,
and Hooman Takhtechian.



ICorr (Aberdeen Section)



<https://sites.google.com/site/icorrabz/home>

Institute of Corrosion
Aberdeen Branch

Search this site

Institute of Corrosion website

Visit the [Institute of Corrosion](#) website to find out more about Conferences and Events, Education and Training as well as the Technical Forums at <http://www.icorr.org>.

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ICorr Aberdeen

Welcome to the Aberdeen branch of the Institute of Corrosion

Thanks to our branch sponsors, the Aberdeen branch of the Institute of Corrosion is able to host a technical programme of monthly presentations from September through to May.

Institute of Corrosion Aberdeen branch meetings begin at 18:00 with a complimentary light buffet and the opportunity to network with other corrosion professionals, followed by the technical presentation at 18:30. The exception this year is the April meeting which begins at 17:30 for a 18:00 start, after the [Marine Corrosion Forum](#).

Our meetings are typically held on the last Tuesday of the month at the [Palm Court Hotel](#), 81 Seafield Road, Aberdeen, AB15 7YX.

The Institute of Corrosion is recognised by the Institute of Materials, Minerals and Mining (IOM3), British Institute of NDT (BINDT) and by the Institute of Marine Engineering, Science and Technology (IMarEST) as offering technical presentations that contribute to an individual member's Professional Development requirements.

Details of local Aberdeen events from the Institute of Corrosion (ICorr) are shown in our [Technical Programme](#).

Subscribe to the Institute of Corrosion
Aberdeen Branch event email reminders

Email:



ICorr (Aberdeen Section)

<https://sites.google.com/site/icorrabz/resource-center>



Institute of Corrosion Aberdeen Branch

Search this site

Institute of Corrosion website

Visit the [Institute of Corrosion](http://www.icorr.org) website to find out more about Conferences and Events, Education and Training as well as the Technical Forums at <http://www.icorr.org>.

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ICorr Aberdeen

Downloads

S. 2018/2019 ICorr Aberdeen Presentations					
<input type="checkbox"/>		2018-08-14 CAD 01 ICorr Aberdeen Branch 2018 CAD _ All Lectures Presentation Slides.pdf View	2018 ICorr Aberdeen CAD on 14/08/2018 - All Lectures Presentations	an hour ago	Aberdeen ICorr
<input type="checkbox"/>		2018-08-14 CAD 02 ICorr Aberdeen Branch 2018 CAD _ Emerson Permasense Equipment Demonstration.pdf View	2018 ICorr Aberdeen CAD on 14/08/2018 - Emerson Demonstration Presentations Slides	an hour ago	Aberdeen ICorr
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<input type="checkbox"/>		2018-08-14 CAD 05 ICorr Aberdeen Branch 2018 CAD _ Emerson The Role of Advanced Instrumentation in Process Integrity Management.pdf View	2018 ICorr Aberdeen CAD on 14/08/2018 - Emerson Demonstration Presentations Slides	an hour ago	Aberdeen ICorr
T. 2017/2018 ICorr Aberdeen Presentations					

ICorr (Aberdeen Section)

<https://sites.google.com/site/icorrabz/calendar>



Institute of Corrosion Aberdeen Branch

Institute of Corrosion website

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Local Technical Programme

ICorr Aberdeen Branch Programme of Events

Today ◀ ▶ Tuesday, 27 March 2018 ▾

Print Week Month Agenda

18:00 **ICorr Aberdeen Branch Meeting**

Tuesday, 27 March 2018

18:00 **ICorr Aberdeen Industrial Visit - BOOKING REQUIRED**

When Tue, 27 March 2018, 18:00 – 19:30

Where TBC ([map](#))

Description TBC
[more details»](#) [copy to my calendar](#)

Displaying events until 31/7. [Look for more](#)

ICorr Aberdeen Events



A journal of the Institute of Corrosion

Corrosion Management

Issue 144 July/August 2018

Selection of materials for handling waste waters

www.icorr.org

Discover what is happening in your area with Local Branch News
Page 9

Find out about all the latest industry news
Page 11

Local Branch News Aberdeen Branch

The 5th branch event of 2018 took place on Tuesday 20th May 2018 with 48 attendees. The evening opened with a short AGM and election of a new committee for 2018-2019 season. In terms of the committee members, the branch have secured continued commitment from all the existing 2017/2018 members, and in addition a new committee member, Ms Zahra Lotfi (MICorr, CEng) was elected to serve for the 2018/2019 season. Also the branch welcomed back a former committee member, Dr Muhammad Ejaz, who took a sabbatical year in the 2017/2018 season and has returned for the 2018/2019 season.

The May meeting was a very informative Industrial Visit to Sonomatic, which included several presentations and showcased their specialist equipment and facilities for overcoming / identifying corrosion and integrity challenges.

It was a great opportunity to witness so many different inspection technologies on display together, and which was well received by all who came along. It was also very interesting to hear about the links between Industrial NDT as used extensively in the Oil and Gas Industry, and Medical applications of these advanced techniques.

The applicability of the use of Non-Intrusive Inspection (NII) and its possible time savings, was explained and a wide range of NII verification methods were demonstrated, along with discussion of Non-Intrusive Codes such as DN-VGL-HP-G103 as further developed by MOES, Joint Industry Project and others, in

- Type A – No Corrosion Elong and Minimum Inspection Requirements / Coverage.
- Type B – Predictable Corrosion Locations / Moderate Rates and Medium Inspection Requirements / Coverage.
- Type C – Unpredictable Corrosion Locations / High Rates and 100% Inspection Requirements / Coverage.



The current Aberdeen Chair (Dr. Yuzuan Gao), with Sonomatic staff - Dr Allison Craigies, Dr Patricia Conder, Dr Susan Ozbek and Graham Marshall, together with Stephen Tate Branch Publicity Secretary.

The need for close working co-operation between inspection teams and corrosion engineers was stressed, together with the importance of post inspection analysis / data review and statistical analysis. When correctly calibrated and deployed, these specialist techniques provide an extremely useful 3-dimensional record of the completed inspection with all high risk areas highlighted / colour coded according to depth of corrosion penetration / pitting.

The use of Long range Ultrasonic Testing (LRUT) as an effective screening tool was explained in detail to the audience. Weld locations maybe clearly visualised as high amplitude peaks, and when used properly, LRUT flags up areas showing corrosion activity which require further investigation. This does not necessarily stop at the specific location(s) of the indication(s) detected, but it triggers the operator to perform a higher level of investigation. For instance, if defect indications are detected in sections of straight pipe, adjacent elbows or other fittings may warrant inspection using a complementary NDT technique, e.g. CHIME®, which is a semi-quantitative tool used to inspect pipe material located between two UT probes, which can be up to 1 metre apart. This is an ideal method for pipe supports, as LRUT indicates only where there is an indication, but CHIME® classifies indications into categories of,

Technical Article

(a) No corrosion, (b) +10% wall loss, (c) 10% to 40% wall loss, and (d) +40% wall loss.



Long Range UT (LRUT) Equipment alongside segregated Pipe spools ready for inspection.

Later in the evening the Dynamic Response Spectroscopy (DRS) demonstration showed how modern composite coatings / wraps such as neoprene and multi-layer polypropylene, could be effectively inspected, highlighting variations in thickness, and the ability to detect internal pitting to +/- 0.5mm and any significant coating defects. DRS uses lower test frequencies to deal with these thicker type coatings.



Caption Composite Wrap Inspection with Dr Allison Craigies.

At the end of the evening, a vote of thanks was given to all the Sonomatic staff, who contributed to this very successful event. Throughout the evening wide range of questions followed the very comprehensive presentations and all the presenters' slides are available at,

<https://sites.google.com/site/icorrabz/resource-center>
Other event photos are available at:
<https://photos.google.com/share/>

Next year's Technical Meetings will be held at a new venue - The Robert Gordon University, and for more information about all forthcoming Aberdeen branch activities, please check the diary page, or the website or contact, Dr Yuzuan Gao, ICorrABZ@gmail.com. To sign up to the branch mailing list, go to <https://sites.google.com/site/icorrabz/home>

London Branch

The first meeting of the new season will be held as usual at Imperial College, on 11th October. The topic will be, "Advanced cathodic protection; protection design by finite method", by Paolo Marcelloni from Coscor. More details will be available on the Branch page of the Institute website nearer the time.

The second branch joint meeting with the Society of Chemical Industry will be held at SCI, 14 Belgrave Square, London SW1X 8PS, on 25th October 2018 and entitled "A Fighting Ship and Fighting Corrosion". The Speakers will be, Dr Eleanor Schofield - Mary Rose Trust and Jim Glynn - ICorr and Beany Ltd. The presentations will describe the conservation strategies developed during the restoration of the Mary Rose, and the dynamic duo of coatings and cathodic protection.

The starting time is 17.30 for 18.00, and a net-working drinks reception will follow at 18.30. This event is free to attend, but please register in advance to help with catering at, <http://bit.ly/2k0CXUR>. Registration can also be made through John O'Shea at, john.oshea@btinternet.com. Further details are available on both ICorr and SCI websites.

ICorr Aberdeen Events 2018-2019



Date	Event Type	Company / Sponsor	Topic (s)
Tue 14/08/18	Corrosion Awareness Day (2018), at Emerson, Dyce, (9-4 pm).	EMERSON - Key Sponsor	Wide Range of Corrosion Topics and Equipment Demonstrations from the Aberdeen Corrosion Awareness Team.
Tue 25/09/18	Joint ICorr/TWI Joint Technical Event, at RGU 6pm.	ROSEN	Preferential Weld Corrosion (PWC) for Subsea and Topsides Systems.
Tue 30/10/18	ICorr Technical Event, at RGU 6pm.	Emerson - Permasense	Optimising Plant Integrity and Solids Control through continuous Non-Intrusive Wall Thickness Monitoring
Tue 27/11/18	Joint ICorr/IOM3 Joint Technical Event, at RGU 6pm.	Metal Ecosse	Downhole Metallurgy and Corrosion Control.
Tue 29/01/19	ICorr Technical Event, at RGU 6pm.	Plant Integrity Management (PIM)	Integrity Issues and Planned Production Losses – How to Break the Cycle.
Tue 26/02/19	ICorr Special Coating Event, at RGU 6pm.	International Paint and AEGION	Paper 1, A Novel Approach to Combatting CUI. Paper 2, MIC-Resistant HDPE Linings for Seawater Applications (AEGION).
Tue 26/03/19	Industrial Visit to ICR, Bridge of Don, ICR Premises, 6pm.	ICR	Presentations and Displays of Combined Corrosion Control Capabilities from all five ICR Business Units: Walker Technical, NECE, CIU, Quickflange and MOSS.
Tue 30/04/19	Joint ICorr/MCF Joint Technical Event, at RGU 5.30pm.	SCALED SOLUTIONS	Corrosion Inhibitor Screening: Impacts of Different Test Approaches.
Tue 28/05/19	ICorr/NACE Joint Technical Event, at AIS 6pm. (N.B This Meeting will be preceded by the ICorr AGM).	AIS and Hempel	Agenda 1: NACE Presentation and Demo. Agenda 2: Evaluating the Effect of Surface Preparation Standard on Zinc Rich Epoxy Primers (Hempel)

ICorr Aberdeen Events

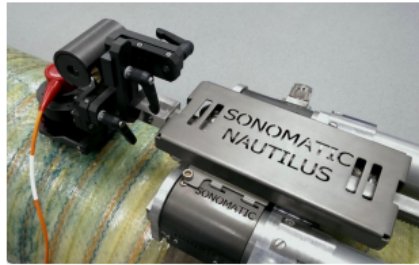


ICORR AND NACE JOINT EVENT SONOMATIC INDUSTRIAL VISIT 18:00 HRS ON TUESDAY 29TH MAY, 2018



INDUSTRIAL VISIT TO SONOMATIC – OVERCOMING INSPECTION CHALLENGES

Venue: Sonomatic, The Core Industrial Estate, Berryhill Crescent, Murcar, Aberdeen, AB23 8AN
18:00: Complimentary Light Buffet & Networking, 18:20: Event Starts. PPE is not required.



The Full Agenda for the Event is as follows: **Please arrive Promptly.**

18:00 – 18:20: Reception and Snacks, 18:20 – 18:30: ICorr AGM
18:30 – 18:35: Health and Safety Brief and Introductions, 18:35 – 20:00: Tour of Facilities, (in Groups of 10)

The tour of **Sonomatic** facilities will include talks on the following 4 topics:

1. Inspection and Evaluation of Pressure Vessels,
2. Inspection through challenging Coatings,
3. Corrosion Under Pipe Supports,
4. Subsea Inspection

Should You Wish To Attend This Event.....Please Contact: Amir Attarchi aattarchi@oceanearing.com

Places are very limited. Please ensure that if you reserve a place **that you do attend.**
Attendance at this ICorr Event is FREE for Pre-registered Members and Non-Members.
CPD Certification will be Available upon Request.

2017-2018 ICORR ABERDEEN BRANCH SPONSORS:



2017-2018 ICorr Gold Sponsors: Corpro Companies Europe Ltd, Pipeline Technique Ltd.

2017-2018 ICorr Sustaining Sponsors: CAN Offshore, North East Corrosion Engineers, Oceanearing Int. Services, Plant Integrity Management, R&R Corrosion, Spencer Coatings.

Join our events mailing list at <https://sites.google.com/site/icorrabz>

ICorr Aberdeen Events

Corrosion Awareness Course



- A course comprises a number of lectures (5 to 6), each of which talks about a different aspect of corrosion and gives basic information on corrosion principles, corrosion mechanisms and corrosion control
- The objective of this course is to help understand corrosion as process and to raise awareness regarding corrosion management.
- The lectures are delivered by renowned Corrosion Engineers / Scientists and are provided on a voluntary basis
- Target audience are graduate engineers and non-corrosion engineers but work closely with corrosion (e.g. integrity engineers, inspection engineers, etc.), as well as engineering students
- Priority is given to candidates nominated by Sponsors, on a “first-come, first-served” basis
- The course is hosted by ICorr Aberdeen Branch through its sustaining and branch sponsorships
- Link to lectures from previous meetings:
<https://sites.google.com/site/icorrabz/resource-center>

ICorr Aberdeen Events

Corrosion Awareness Course



ICorr Membership



- **Develop links** with business and professional bodies who have similar interests.
- **Enjoy the support** of an experienced organisation.
- **Participate in the advancement of corrosion control** in all its forms.
- **Participate** in Branch and Divisional activities.
- **Leads to professional qualification** (FICorr, MICorr, TICorr) or certification as technicians and inspectors (Technician 1, Inspector levels 1 to 3).
- **Corrosion Awareness course** free spaces offered to students every year.
- **Keep up to date** with corrosion and corrosion control activities.



ICorr Membership

Free Student Membership

Join the largest community of Corrosion professionals in the UK and access all the resources, skills and opportunities you need to develop your career

<http://www.icorr.org/membership/student-membership.phtml>

- Show proof of full time enrolment at an approved science or engineering based study program.
- Submit completed form and proof of enrolment.



Barratt House, Kingsthorpe Road, Northampton NN2 6EZ
TEL: +44 (0) 1604 438222

E-mail: admin@icorr.org Web site: <http://www.icorr.org>

APPLICATION FOR STUDENT MEMBERSHIP

(Please TYPE or PRINT in black ink as this form will be photocopied)

SURNAME [Mr/Mrs/Miss/Ms/Dr/Prof] <input type="checkbox"/>		FORENAMES (in full) <input type="checkbox"/>		Date Of Birth <input type="checkbox"/>
PRIVATE ADDRESS including postcode <input type="checkbox"/>				
UNIVERSITY <input type="checkbox"/>		Date Of Joining <input type="checkbox"/>		
COURSE <input type="checkbox"/>				
QUALIFICATIONS <input type="checkbox"/>				
UNIVERSITY ADDRESS Including postcode <input type="checkbox"/>				
TELEPHONE		Home <input type="checkbox"/>	Business <input type="checkbox"/>	
		Mobile <input type="checkbox"/>	email <input type="checkbox"/>	
Do you consent to receiving information from the Institute of Corrosion: By email Yes/No <input type="checkbox"/> By post Yes/No <input type="checkbox"/>				
Which Address Do You Want To Use For Correspondence And The Journal				Home/University <input type="checkbox"/>

You are welcome to participate in the activities of any Branch and Division and for mailing purposes, you will be allocated to the Branch covering your home location unless requested otherwise. Which Branch and Division do you wish to join? (Please indicate)

Branch:	[Aberdeen] <input type="checkbox"/>	[London] <input type="checkbox"/>	[North East] <input type="checkbox"/>	[North West] <input type="checkbox"/>	[Yorkshire] <input type="checkbox"/>	[Midlands] <input type="checkbox"/>
Division(s)	[Corrosion Engineering] <input type="checkbox"/>	[Corrosion Science] <input type="checkbox"/>	[Young ICorr] <input type="checkbox"/>			

DECLARATION (to be signed by all applicants)
I hereby confirm that I have an interest in the practice of corrosion technology and/or science and undertake to comply with the Institute's Articles of Association and Bye-laws.
Please note that the Institute of Corrosion is GDPR Compliant and we do not hold any data that is not required for the running of the organisation. The Institute of Corrosion Data Protection Manual and data Protection Policy can be found on the ICorr website

Signed: _____ Date: _____

FEES: Bone-fide full-time students are eligible for ICorr membership at no cost

To qualify for the ICorr student membership rate and benefits, you must:

1. Show proof (e.g. course schedule and student ID) of enrolment as a full-time student at an approved science or engineering based study programme.
2. Submit proof of student eligibility on an annual basis at renewal. (Seven years is the maximum length of time an individual may retain student status.)

Key Information



- For further information about the institute, visit the ICorr website:

www.icorr.org

- For further information about the activities of the local section, visit Aberdeen section page on

<https://sites.google.com/site/icorrabz/>

or send an email to

icorrabz@gmail.com

Thank you.

