SAVE 10%
OFFER ENDS
26 JANUARY 2018

STRUCTURAL INTEGRITY DESIGN AND VALIDATION TECHNOLOGIES 2018

A JOINED-UP APPROACH

Institution of MECHANICAL ENGINEERS

KEY SPEAKERS INCLUDE:

Tim Barden, Scientist NDE
Rolls-Royce

Thomas Barber, Senior Engineer - Materials Technology
BAE Systems

John Harris, Senior Engineer (Non-Destructive Testing)
Network Rail

Alan Smith, Senior Consultant
Genesis Oil and Gas

Graham Elliott, Manager, Inspection Department, Manufacturing Europe
SABIC UK Petrochemicals Limited

Conference

27-28 February 2018
Manchester United Football Club, Manchester



CO-SPONSOR:

Institution of MECHANICAL ENGINEERS

Engineering Training Solutions
Including Argyll-Ruane

EXHIBITORS:

ROSEN

OLYMPUS
Your Vision, Our Future

SUPPORTING ORGANISATION:

BINDT

FESI
UK FORUM FOR ENGINEERING STRUCTURAL INTEGRITY

ATTMA

Hf
Hazards forum

EIS
ENGINEERING INTEGRITY SOCIETY

CARBON TRUST

EVENT PARTNERS:

topEngineer

Save 10% before 26 January 2018 **www.imeche.org/sidvt**

STRUCTURAL INTEGRITY DESIGN AND VALIDATION TECHNOLOGIES 2018

27-28 February 2018, Manchester United Football Club, Manchester

ENGINEERS REVEAL THEIR METHODS OF APPROACHING STRUCTURAL INTEGRITY, OPERATIONS AND MAINTENANCE IN A COLLABORATIVE WAY USING NON DESTRUCTIVE TESTING.

Structural Integrity Design and Validation Technologies 2018 will bring together experts from across the field of Non Destructive Testing (NDT), structural integrity, operations and maintenance. Attendees will gain an in-depth understanding **of NDT in context of different applications** through various cross industry case studies. Learn about new and existing techniques, NDT reliability and validation, as well as real time monitoring solutions for hazardous environments or equipment that is difficult to take out of service.

Attend our exclusive networking dinner for the chance to meet new contacts and broaden your contact base within the industry. Take part in **interactive panel discussions** for the opportunity to ask experts about your own engineering challenges and how they could be addressed. Find **innovative approaches**, **emerging solutions** and **new technologies** to improve your inspection processes and the use of the associated data.

KEY PROGRAMME HIGHLIGHTS:

- The nuclear regulator's perspective on non-destructive examination from the **Office of Nuclear Regulation**
- Monitoring aging assets in a real life plant environment from **SABIC Petrochemical Ltd**
- Ultrasonic NDE in lieu of radiography: challenges and opportunities from **BAE Systems**
- Improved asset performance using multiple data sources from **Network Rail**
- Practical steps to achieving reliable NDT results from **Wood Group**

ATTEND THIS EVENT TO:

- Understand the role of **NDT in context** of operations, maintenance, structural integrity analysis, design and validation
- **Hear directly from regulators** and those working to effectively adhere to standards in order to remain safe and compliant
- Meet **key budget holders and decision makers** who specialise in the use of NDT, operations, condition monitoring and structural integrity analysis
- Hear about the latest methods f**or assessing structural integrity**, and the effective use of NDT data
- Learn from cross industry case studies from representatives in **Aerospace**, **Rail**, **Oil**, **Gas**, **Petrochemical Processing**, **Nuclear**, **Thermal**, and **Renewable power generation**

2018 ADVISORY BOARD:

Colin Bird, Director
Colin Bird Inspection

Paul Smith, Consultant, New Nuclear
Wood Group

WITH THANKS TO:

Pressure Systems Group
Institution of Mechanical Engineers

Structural Technologies and Materials Group
Institution of Mechanical Engineers

BOOK EARLY AND SAVE 10%
OFFER ENDS 26 JANUARY 2018

TERMS AND CONDITIONS APPLY

PROGRAMME

DAY 1	TUESDAY 27TH FEBRUARY 2018
08:30	REGISTRATION AND REFRESHMENTS
09:00	**CHAIR'S OPENING REMARKS**
	REGULATION ACROSS INDUSTRIES
09:10	**THE NUCLEAR REGULATOR'S PERSPECTIVE ON NON DESTRUCTIVE EXAMINATION** Russ Booler, Inspector – Nuclear Safety, Office of Nuclear Regulation
09:35	**PENSTOCKS INSPECTION – CAPABILITY ASSESSMENT OF NEW TOOLS** Jerome Delemontez, NDT Expert Engineer, EDF France Regulation
10:00	**QUESTION AND ANSWER SESSION**
10:15	NETWORKING REFRESHMENT BREAK
	TESTING AND VALIDATION TECHNIQUES
10:45	**PHASED ARRAY ULTRASONIC TESTING VERSUS RADIOGRAPHY FOR DENSE METAL WELDS** Fraser Hardie, Technical Authority, NDT, Asset Management, Doosan Babcock
11:10	**ULTRASONIC NDE IN LIEU OF RADIOGRAPHY: CHALLENGES AND OPPORTUNITIES** Thomas Barber, Senior Engineer - Materials Technology, BAE Systems
	CASE STUDIES IN RENEWABLES
11:35	**AN OVERVIEW OF THE CARBON TRUST AND ITS ROLE IN SUPPORTING THE RENEWABLES INDUSTRY** Michael Stephenson, Offshore Wind Associate, The Carbon Trust
12:00	**THE DEVELOPMENT OF A TECHNIQUE FOR INSPECTING THE FOUNDATIONS OF OFFSHORE WIND TURBINES** Colin Brett, Technical Head, Inspection Management, Uniper
12:25	**QUESTION AND ANSWER SESSION**
12:45	NETWORKING LUNCH
	CASE STUDIES IN STRUCTURAL INTEGRITY ASSESSMENT
13:45	**PRACTICAL EXPERIENCE OF RISK-BASED LIFE EXTENSION AS APPLIED TO AN OFFSHORE PLATFORM** Alan Smith, Senior Consultant, Genesis Oil and Gas
14:10	**INSPECTION TAILORED TO RISK BASED LIFE EXTENSION** Colin Bird, Director, Colin Bird Inspection
14:35	**PREDICTING POTENTIAL ERRORS IN OFFSHORE NON-DESTRUCTIVE TESTING (NDT)** Richard Scaife, Director, Occupational Psychologist, The Keil Centre Limited
15:00	**QUESTION AND ANSWER SESSION**
15:15	**NETWORKING REFRESHMENT BREAK**
	DATA MANAGEMENT AND ANALYSIS
15:45	**IMPROVED ASSET PERFORMANCE USING MULTIPLE DATA SOURCES** John Harris, Senior Engineer (Non-Destructive Testing), Network Rail
16:10	**IMPROVING THE ABILITY TO CHARACTERISE DEFECTS IN AND THE IMPACT ON STRUCTURAL INTEGRITY** Bruce Drinkwater, Professor of Ultrasonics, University of Bristol
16:35	**QUESTION AND ANSWER SESSION**
16:45 **Panel discussion**	**EFFECTIVE USE OF VALIDATION DATA FOR ASSET LIFE EXTENSION** • Assessing how testing techniques can be used to extend the life span of existing assets • Decision making based on data analysis • Reviewing the best techniques available for life span extension
17:15	**CHAIR'S CLOSING REMARKS**
17:25	**END OF DAY ONE**
18:00	**NETWORKING DRINKS RECEPTION AND DINNER**

PROGRAMME

DAY 2	WEDNESDAY 28TH FEBRUARY 2018
09:00	REGISTRATION AND REFRESHMENTS
09:30	**CHAIR'S OPENING REMARKS**
	PERFORMANCE AND RELIABILITY
09:40	**PRACTICAL STEPS TO ACHIEVING RELIABLE NDT RESULTS** Bernard McGrath, Operations Manager MID & MCRL, Wood Group
10:05	**SELECTING THE MOST APPROPRIATE NDT METHODS: A CASE STUDY ON TURBINE BLADE INSPECTION IN A COMMERCIALLY-DRIVEN INDUSTRY** Ben Walker, RWE Inspection Management NDT Development Engineer, RWE Generation UK
10:30	**OPTIMISING THE PERFORMANCE OF SAFETY ASSESSMENTS IN THE POWER GENERATION INDUSTRY** Colin Brett, Technical Head, Inspection Management, Uniper Colin Wignall, Technical Head - Structural Analysis, Uniper
10:55	**QUESTION AND ANSWER SESSION**
11:10	NETWORKING REFRESHMENT BREAK
	APPLICATIONS AND RELEVANCE
11:40	**STRUCTURAL INTEGRITY ASSESSMENTS – ISSUES OF RELEVANCE TO NON DESTRUCTIVE EXAMINATION** John Sharples, Operations Manager (Technical) and Chief Technologist (Structural Integrity), Wood Group
12:05	**TECHNICAL DEVELOPMENTS AND APPLICATIONS OF NEW TECHNOLOGIES** Ben Karkera, Mechanical Engineer, NDE Technology, BAE Systems Maritime – Submarines
12:30	**QUESTION AND ANSWER SESSION**
12:40	NETWORKING LUNCH
	MAINTENANCE AND REAL TIME MONITORING
13:40	**MONITORING AGING ASSETS IN A REAL LIFE PLANT ENVIRONMENT** Graham Elliott, Manager, Inspection Department, Manufacturing Europe, SABIC UK Petrochemicals Limited
14:05	**IMPROVING ASSET MANAGEMENT DECISIONS WITH ADVANCED NDT AND STRUCTURAL HEALTH MONITORING** Robert Pritchard, NDT Consultant, Wood Group
14:30	**ON-WING INSPECTION TECHNIQUES FOR THE AERO-ENGINE INDUSTRY** Tim Barden, Scientist NDE, Rolls Royce
14:55	**QUESTION AND ANSWER SESSION**
15:10	NETWORKING REFRESHMENT BREAK
	NEW TECHNOLOGIES AND APPROACHES
15:40 **Panel discussion**	**IMPROVING CAPABILITIES AND INTRODUCTION OF NEW NDT METHODS** • Expanding existing NDT capabilities and understanding which method is best suited for different environments • Gaps in current capabilities and finding a suitable solution • Looking to the future of NDT from an integrated perspective
16:10	**CHAIR'S CLOSING REMARKS**
16:20	**END OF CONFERENCE**

For the most up-to-date and detailed programme for the event, please visit:
www.imeche.org/sidvt

- This programme is subject to change.
- The Institution is not responsible for the views or opinions expressed by individual speakers.

WHO SHOULD ATTEND?

All engineers and professionals who are directly and indirectly involved with Structural Integrity, Non-Destructive Testing/Examination and Condition Monitoring should attend, including:

- Railway and axle testing
- Aerospace
- Marine
- Automotive
- Construction
- Power generation
- Nuclear
- NDT of food
- NDT in forensic science
- Automated and robotic NDT
- Theoretical modelling
- Inspection qualification
- Composites
- Adhesives and bonding
- Thermography
- Ultrasonics
- Phased arrays
- Electromagnetics
- Radiography
- Digital radiography
- Digital signal processing and imaging
- Novel techniques
- Monitoring Research

FEEDBACK FROM PREVIOUS EVENT:

"The IMechE NDT event was formed of incredibly well-rounded, interesting and engaging sessions, providing the chance to hear from and talk to many of the big players in the NDT industry."

NDE and Aircraft Health Management Engineer, QinetiQ

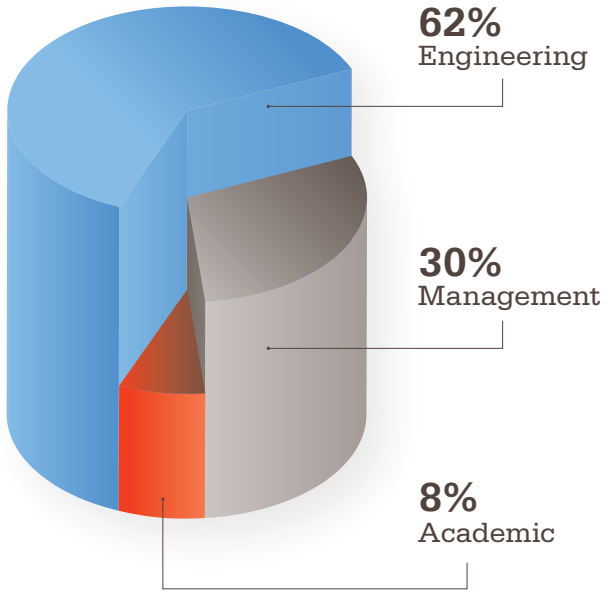
"Great informative event - with a varied range of speakers."

HSE Mechanical Specialist Inspector, HSE

"A well organised event giving broad information about emerging techniques in the field of NDT"

Head of Inspection and Assurance Services, Sellafield Ltd

WHO YOU WILL MEET - PREVIOUS EVENT ATTENDEES:



CREATE A BESPOKE STRATEGY THAT PLACES YOUR COMPANY IN FRONT OF SENIOR DECISION MAKERS

Engage face to face with your target market of senior engineers
Extensive networking opportunities to help you forge strong long-term business relationships with leading industry players

Firmly establish thought leadership credentials within your specialist field
Use high-profile sponsored speaking platforms or focused technical workshops to effectively demonstrate your skills and expertise within a chosen sector

Deliver high-profile and relevant brand exposure
Promote your products and services as market leaders in front of our influential audiences

Generate new business leads
Capture contact data from our highly qualified delegates to fuel your sales teams

CONTACT DANIEL ANGLIN ON:
T: **+44 (0)20 7304 6853**
E: **d_anglin@imeche.org**

HOW TO BOOK YOUR PLACE

FEES AND CHARGES

Registration fees include entry to the sessions, refreshments and a copy of the conference proceedings.

Fees and charges	Early Bird Rates until 26 January 2018	Standard Rates
Member, Institution of Mechanical Engineers / Supporting Organisation	£360 + VAT = £432	£400 + VAT = £480
Non-member	£450 + VAT = £540	£500 + VAT = £600
Student/Retired	£120 + VAT = £144	£140 + VAT = £168

THREE WAYS TO BOOK

1. Online:
   www.imeche.org/sidvt
2. Email:
   eventenquiries@imeche.org
3. Phone:
   +44 (0)20 7973 1251

Please read the information listed below as each booking is subject to the Institution's standard terms and conditions.

CONDITIONS OF BOOKING
Completed application forms should be returned to the address above, along with the correct payment. Attendance at the event will be confirmed on receipt of the full balance. All participants are advised to bring a copy of their confirmation with them on the day, to ensure the fastest possible entry.

SPECIAL REQUIREMENTS
Please inform us of any special requirements, ie dietary or access, on the relevant section of the booking form or email eventenquiries@imeche.org

Cancellation
For a refund (minus £25+VAT admin charge), cancellations must be received at least 30 days prior to the event. Replacement delegates are welcome at any time. The Institution reserves the right to cancel any event. In this case, the full fee will be refunded unless a mutually convenient transfer can be arranged. In the event that the Institution postpones an event for any reason and the delegate is unable or unwilling to attend on the rescheduled date, they will receive a full refund of the fee paid. The Institution is not responsible for any loss or damage as a result of a substitution, alteration or cancellation/postponement of an event. The Institution shall assume no liability whatsoever if this event is cancelled, rescheduled or postponed due to a fortuitous event, Act of God, unforeseen occurrence or any other event that renders performance of this conference impracticable, illegal or impossible. For the purposes of this clause, a fortuitous event shall include, but not be limited to: war, fire, labour strike, extreme weather or other emergency.

Please note that while speakers and topics were confirmed at the time of publishing, circumstances beyond the control of the organisers may necessitate substitutions, alterations or cancellations of the speakers and/or topics. The Institution reserves the right to alter or modify the advertised speakers and/or topics if necessary without any liability to you whatsoever. Any substitutions or alterations will be updated on the event's webpage as soon as possible.

LIABILITY
The organisers do not accept liability for any injuries or losses of any nature incurred by delegates and/or accompanying persons, nor for loss or damage to their luggage and/or personal belongings.

CONFERENCE VENUE
Manchester United Football Club
Sir Matt Busby Way
Old Trafford
Manchester
M16 0RA

SPONSORSHIP & EXHIBITION OPPORTUNITIES

GET INVOLVED

Attending this event as either an exhibitor or sponsor will give you the opportunity to display your solutions, services and products to the right people at the right time.

This is an excellent way to enhance your company profile and communicate effectively to your target audience.

BENEFITS OF SPONSORING

- **Showcase** new products
- **Raise** awareness of your operation
- **Improve** perception of your brand
- **Influence** other organisations' spending plans

For more information please call
+44 (0)20 7973 1309
or email **sponsorship@imeche.org**

PE
DOWNLOAD THE PE APP

Access the latest engineering news

www.imeche.org/peapp



Institution of MECHANICAL ENGINEERS

The Institution of Mechanical Engineers is a registered charity (no 206882)
VAT No GB299930493.

1 Birdcage Walk
Westminster
London
SW1H 9JJ

T +44 (0)20 7222 7899
www.imeche.org

FORWARD THINKING

We are the market leader among professional engineering bodies. We've been supporting engineers since 1847 and have 117,000 members in over 140 countries, working in the world's most dynamic and important industries. Our comprehensive events programme brings you the latest research and best practice from industry and academia.

ANOTHER EVENT TO LOOK FOR

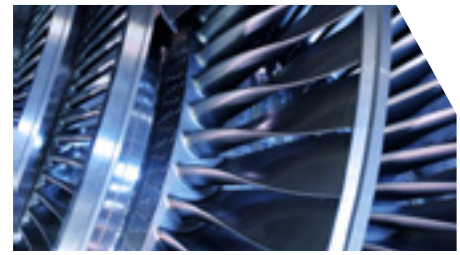


RELIABILITY OF SYSTEMS AND EQUIPMENT OPERATED IN HARSH ENVIRONMENTS

06 March 2018, London

Attend to hear how to effectively and efficiently manage your systems, products and equipment in order to maintain reliability.

www.imeche.org/reliabilityharshenvironments



STEAM TURBINE AND GENERATOR USER GROUP 2018

21-22 March 2018, Manchester

This is THE event for all engineers to stay up to date and benefit from the shared experience of the turbine engineering community.

www.imeche.org/stug

The Institution of Mechanical Engineers organises over 120 events a year, including free-to-attend lectures as well as conferences, seminars, annual luncheons and dinners. Please visit www.imeche.org/events for the complete list of events.

Follow us on Twitter
twitter.com/imecheevents