

# NON INVASIVE INSPECTIONS TECHNOLOGIES

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Pressure Systems Group  
**Seminar**

**14 March 2019**  
Manchester United Football Ground,  
Old Trafford, Manchester

## KEY SPEAKERS INCLUDE:

David Glass, Mechanical Engineering Team Leader  
**HSE**

Gary Robinson, Senior Engineer - Pressure Systems  
**SSE**

Frank Van Bockel, Commercialisation  
& Compliance Consultancy Manager  
**Lloyd's Register**

Stuart Turner, Lead Engineer Pressure Systems  
**BOC**

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# NON INVASIVE INSPECTIONS TECHNOLOGIES

14 March 2019, Manchester United Football Ground,  
Old Trafford, Manchester

**INSPECTION MANAGERS NEED TO HAVE SAFER METHODS OF PERFORMING INSPECTIONS OF PRESSURE EQUIPMENT, INCLUDING THOSE IN HAZARDOUS AND UNREACHABLE ENVIRONMENTS. BY REMOVING HUMAN ENTRY WITH THE USE OF AUTOMATED AND REMOTE METHODS, ORGANISATIONS MUST UNDERSTAND HOW TO MAINTAIN THE RELIABILITY OF THEIR RESULTS WHILE MANAGING COSTS.**

Join the Non Invasive Inspections Technologies seminar to hear how operators in industry are successfully implementing new and novel technologies to enhance their inspections.

Hear the lessons learned from case study presentations that your organisation can use to improve the quality of your inspections results and best practice in the use of live streaming, drones, robots and other camera technologies.

Get guidance direct from the industry regulator on the competent application of these technologies to ensure that your organisation complies with the latest regulatory directives.

Make the most of dedicated networking opportunities at the event to make new contacts from inspections and non destructive testing backgrounds to help address future requirements at your organisation.

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## ORGANISING COMMITTEE:

Pressure Systems Group  
**Institution of Mechanical Engineers**

## MEMBERS CREDITS:

Paul Smith, Consultant New Nuclear  
**Wood plc**

Adam Thistlethwaite, Global Service Line Director  
**Team Inc**

Simon Emeny, Global Head of Nuclear, Inspection Services  
**Lloyd's Register**

## ATTEND THIS SEMINAR TO:

- Understand how new technologies can enable safer and more cost-effective pressure systems inspections
- Gain insights into the latest technologies for inspections, including drones, crawlers, swimmers and much more
- Hear latest guidance from the industry regulator to ensure that your organisation remains compliant with current legislation
- Learn the lessons of technical inspections from recent operator case studies to enhance your organisation's processes
- Take part in an interactive panel session to determine the way forward for industry on remote inspections

## KEY PROGRAMME HIGHLIGHTS:

- Hear from **Doosan Babcock** about the development of the latest inspections methodology and how to put NII into practice
- Hear from **HSE** about the latest regulatory updates on inspection use
- **SSE** shares lessons learned in remote visual inspection of demineralised water tanks using submersible ROV (remotely operated vehicle)
- **Lloyd's Register** outlines how to improve quality and safety through new functionalities of live streaming, drones and other camera technology
- **BOC** details how to implement and execute a drone inspection system
- Learn from **Sellafield** about the use of a new technology on GRP tanks and vessels

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TERMS AND  
CONDITIONS  
APPLY

# PROGRAMME

| <b>THURSDAY, 14 MARCH 2019</b> |  |
|--------------------------------|--|
| 08:30                          | REGISTRATION AND REFRESHMENTS  |
| 09:00                          | <b>CHAIR'S OPENING REMARKS</b>   |
| 09:10                          | <b>KEYNOTE PRESENTATION</b>  |
|                                | <b>DEVELOPING IN THE LABORATORY: WHAT'S JUST OVER THE HORIZON</b>  |
| 09:40                          | <b>RESEARCH ADVANCEMENTS IN REMOTE AND AUTOMATED NDT</b><br>Gordon Dobie, Lecturer in the Department of Electronic & Electrical Engineering, University of Strathclyde   |
| 10:05                          | <b>REVIEW OF NON-INVASIVE INSPECTION TECHNOLOGY</b><br>Fraser Hardie, Manager-Special NDT Techniques, Doosan Babcock   |
| 10:30                          | <b>QUESTION AND ANSWER SESSION</b>   |
| 10:45                          | NETWORKING REFRESHMENT BREAK   |
|                                | <b>CONFIDENCE IN THE RESULTS</b>   |
| 11:15                          | <b>THE CHANGING FACE OF EXAMINATION – REGULATORY CONSIDERATIONS</b><br>David Glass, Mechanical Engineering Team Leader, HSE  |
| 11:40                          | <b>HUMAN FACTORS IMPLICATIONS FOR NII</b><br>Bernard McGrath, Operations Manager MID & MCRL, Wood plc  |
| 12:05                          | <b>REMEMBERING THE OPERATOR IN REMOTE OPERATIONS</b><br>Rachel Cummings, Principal Human Factors Consultant, Wood plc  |
| 12:30                          | <b>QUESTION AND ANSWER SESSION</b>   |
| 12:45                          | NETWORKING LUNCH   |
|                                | <b>INDUSTRY CASE STUDIES</b>   |
| 13:45                          | <b>RVI (REMOTE VISUAL INSPECTION) USING SUBMERSIBLE ROV (REMOTELY OPERATED VEHICLE) OF DEMINERALISED WATER TANKS</b><br>Gary Robinson, Senior Engineer - Pressure Systems, SSE   |
| 14:10                          | <b>IMPLEMENTATION OF A DRONE INSPECTION SYSTEM</b><br>Stuart Turner, Lead Engineer Pressure Systems, BOC   |
| 14:35                          | <b>EXPERIENCE WITH NII IN PLACE OF IVI FOR PRESSURE VESSELS</b><br>Campbell McKee, Senior Engineering Consultant, Sonomatic  |
| 15:00                          | <b>QUESTION AND ANSWER SESSION</b>   |
| 15:15                          | NETWORKING REFRESHMENT BREAK   |
| 15:45                          | <b>GAINING CONFIDENCE FROM REMOTE INSPECTIONS</b><br>Frank Van Bockel, Commercialisation & Compliance Consultancy Manager, Lloyd's Register  |
| 16:10                          | <b>SUBSTANTIATION OF COMPOSITE TANKS/VESSELS USING NEW TECHNOLOGY: LESSONS LEARNED IN THE NUCLEAR INDUSTRY</b><br>Edward Anderson, Senior Engineer -Pressure Vessels and Piping, Sellafield Ltd  |
| 16:35                          | <b>QUESTION AND ANSWER SESSION</b>   |
|                                | <b>LOOKING FORWARD TO THE FUTURE</b>   |
| 16:45                          | <b>PANEL DISCUSSION: WHERE DOES THE INDUSTRY GO FROM HERE?</b><br>David Glass, Mechanical Engineering Team Leader, HSE<br>Gordon Dobie, Lecturer, University of Strathclyde<br>Gary Robinson, Senior Engineer - Pressure Systems, SSE<br>Stuart Turner, Lead Engineer Pressure Systems, BOC<br>Campbell McKee, Senior Engineering Consultant, Sonomatic <ul style="list-style-type: none"><li>• What to do as an industry going forwards?</li><li>• What is the industry need?</li><li>• What needs to be fed back?</li><li>• What do the NDT suppliers need to be working on?</li><li>• What if there is no access?</li></ul> |
| 17:20                          | <b>CHAIR'S CLOSING REMARKS</b>   |
| 17:30                          | END OF SEMINAR   |

For the most up-to-date and detailed programme for the event, please visit [www.imeche.org/niit](http://www.imeche.org/niit)

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

## HOW TO BOOK YOUR PLACE

### FEES AND CHARGES

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

| Seminar   | Early Bird Rate<br>Until 1 February 2019 | Standard Rate     |
|---|--|-------------------|
| Member, Institution of Mechanical Engineers / Supporting Organisation | £285 + VAT = £342                        | £325 + VAT = £390 |
| Non-member  | £320 + VAT = £384                        | £365 + VAT = £438 |
| Full-time Student/Retired   | £100 + VAT = £120                        | £100 + VAT = £120 |
| Access Non Destructive Testing 2019 as well                           | £75 + VAT = £90                          | £75 + VAT = £90   |

Group booking discounts are available. Contact us for more information.

### THREE WAYS TO BOOK

- 1 Online:  
[www.imeche.org/niit](http://www.imeche.org/niit)
- 2 Email:  
[eventenquiries@imeche.org](mailto: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 this form.

#### 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

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## Institution of MECHANICAL ENGINEERS

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VAT No GB299930493.

1 Birdcage Walk  
Westminster  
London  
SW1H 9JJ

T +44 (0)20 7222 7899  
[www.imeche.org](http://www.imeche.org)

# FORWARD THINKING

We are the market leader among professional engineering bodies. We've been supporting engineers since 1847 and have 120,000 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.

### OTHER EVENTS TO LOOK FOR

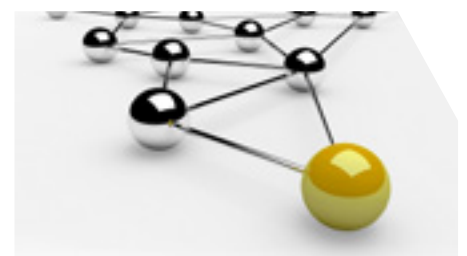


### NON DESTRUCTIVE TESTING 2019

14 March 2019, Manchester

Gain a clear overview of the current techniques and technologies available for safe and compliant non destructive testing. The seminar bridges the gap between current best practice, findings from research and future applications to achieve faster, more accurate and cost-effective testing.

[www.imeche.org/ndt](http://www.imeche.org/ndt)



### ESSENTIAL MANAGEMENT SKILLS 2019

3-5 April 2019, Coventry

Improve your ability to manage people, projects and teams, as well as motivate you to take control of your own development. This hugely popular annual programme focuses on developing leadership, communication and project management skills for engineers.

[www.imeche.org/ems](http://www.imeche.org/ems)

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](http://www.imeche.org/events) for the complete list of events.

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