ASSET MANAGEMENT: RELIABILITY FOR A DIGITAL AGE



Institution of MECHANICAL ENGINEERS

26 March 2020 One Birdcage Walk, London

Safety and Reliability Group **Seminar**

KEY SPEAKERS INCLUDE:

Rhys Davies, Chair, ISO Committee TC251 Asset Management

International Organisation for Standardisation

 $\begin{tabular}{ll} Tim Flower, Professional Head of Maintenance \\ \begin{tabular}{ll} Network Rail \end{tabular} \label{tabular}$

Harriet Green, Principal Mechanical Engineer - Technical Integrity

Equinor

Leo Pickford, Strategic Capability Executive Rolls-Royce

Alexandra Knight, Technical Director **Amey Strategic Consulting**

Will Leonard, Asset Management Portfolio Manager, Energy

ABB



SUPPORTING ORGANISATIONS:









EVENT PARTNER:



ASSET MANAGEMENT: RELIABILITY FOR A DIGITAL AGE

26 March 2020, One Birdcage Walk, London

JOIN THIS SEMINAR TO SUCCESSFULLY INTEGRATE ADVANCED DIGITAL SYSTEMS AND DELIVER REAL VALUE FOR ASSET OWNERS AND OPERATORS. LEVERAGING ASSET HISTORY AND **OPERATIONAL DATA CAN INFORM** BETTER DECISIONS, ENABLING YOU TO REDUCE DOWNTIME AND **EXPENDITURE. HOWEVER, GIVEN** THE POTENTIALLY DISRUPTIVE NATURE OF THIS TECHNOLOGY, IT IS IMPERATIVE THAT THESE DIGITAL CAPABILITIES ARE ALIGNED WITH YOUR MECHANICAL ENGINEERING REQUIREMENTS. LEARN FROM LEADERS IN CIVIL AVIATION, RAILWAY INFRASTRUCTURE, RENEWABLE ENERGY, NUCLEAR AND POWER DISTRIBUTION ABOUT HOW DIGITAL TOOLS ARE REVOLUTIONISING THE **OPERATION AND PERFORMANCE** OF THEIR ASSETS.

Cutting-edge industry presentations will demonstrate how condition monitoring and data analysis are being used to give insights into present and future performance for assets at different stages of their lifecycle. Return to your organisation with knowledge of what tools and technologies are best suited to support your assets and learn how to incorporate them smoothly into your operational environment.

This event is a must-attend for asset managers at all stages of digital transformation. It is a unique opportunity to share best practice with engineers from across mechanical engineering and forge connections as you take the next step into digital era.

ORGANISING COMMITTEE:

Safety and Reliability Group

Institution of Mechanical Engineers

ATTEND THIS SEMINAR TO:

- Learn about the application of data analytics to support design, operation, maintenance and life extension decisions
- Hear more about developments in digital asset management tools including digital twins to leverage large volumes of data and upgrade the reliability of your assets
- Benefit from a wide range of industry case studies representing civil aviation, power distribution, railway infrastructure, nuclear processing and offshore wind
- Take part in peer-to-peer roundtables to set the tone for discussion and develop solutions for critical challenges
- Enjoy networking time throughout the day to meet new partners and build relationships which will drive your business forwards

KEY PROGRAMME HIGHLIGHTS:

- Learn about the development and implementation of UK Power Networks' cutting-edge SYNAPS project for AIdriven fault detection
- Sellafield Ltd discuss the use of data to improve their understanding of asset performance and underpin life extension
- Deepen your knowledge of Digital Twins, including the National Digital Twin Programme, with the Centre for Digital Built Britain
- Rolls-Royce present on their Intelligent Engine, integrating global streams of real-time data to optimise operational performance
- Learn about Network Rail's Intelligent Infrastructure programme to revolutionise their predictive maintenance capabilities

MEMBER CREDITS:

Bob Wilson, Chair,

Institution of Mechanical Engineers' Safety and Reliability Group, Working Group 1

Mark Norris, Technical Director - Asset Management, Strategic Business Consulting,

Black & Veatch

PROGRAMME

08:30 REGISTRATION AND REFRESHMENTS CHAIR'S OPENING REMARKS Alexandra Knight, Technical Director, Amey Strategic Consulting DIGITAL ASSET MANAGEMENT - ASKING THE RIGHT QUESTIONS TO GET THE RIGHT ANSWERS Rhys Davies, Chair, ISO Committee TC251 Asset Management, International Organisation for Standardisation PUTTING THE ROLE OF THE ENGINEER AT THE HEART OF DIGITAL TRANSFORMATION		
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O9:10 KEYNOTE PRESENTATION DIGITAL ASSET MANAGEMENT - ASKING THE RIGHT QUESTIONS TO GET THE RIGHT ANSWERS Rhys Davies, Chair, ISO Committee TC251 Asset Management, International Organisation for Standardisation PUTTING THE ROLE OF THE ENGINEER AT THE HEART OF DIGITAL		
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09:45 LEADING THE CHARGE AS ARTIFICIAL INTELLIGENCE (AI) TRANSFORMS		
ASSET MANAGEMENT Alexandra Knight, Technical Director, Amey Strategic Consulting		
Yuvraj Domun, Data Scientist, Amey Strategic Consulting 10:15 DATA-DRIVEN DESIGN AND OPERATION OF OFFSHORE WIND ASSETS		
Harriet Green, Principal Mechanical Engineer - Technical Integrity, Equinor Thomas Helfer, Senior Engineer, Digitalisation and Performance Analysis, Equinor		
10:45 NETWORKING REFRESHMENT BREAK		
IMPLEMENTING DIGITAL TOOLS FOR DIFFERENT STAGES OF THE ASSET LIFECYCLE		
11:15 NETWORK RAIL'S INTELLIGENT INFRASTRUCTURE PROGRAMME: MAXIMISING AVAILABILITY THROUGH TIMELY INTERVENTIONS AND PREDICTIVE MAINTENANCE		
Tim Flower, Professional Head of Maintenance, Network Rail		
11:45 USING DATA TO INFORM DECISION MAKING FOR AGEING ASSETS Chris Pickford, Equipment Reliability Lead, Sellafield Ltd		
12:15 EXPLORING THE POTENTIAL OF MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE IN ASSET MANAGEMENT Rona Mitchell, Innovation Engineer, SYNAPS Project Lead, UK Power Networks		
12:45 NETWORKING LUNCH		
13:45 ROUNDTABLE DISCUSSIONS		
Delegates can choose to join one of four roundtable discussions. This will provide you with the chance to share their views and thoughts around the roundtable topic of choice.		
 Identifying mission critical systems and performance characteristics to deliver value and reduce risk 		
Will Leonard, Digital Portfolio Manager, Asset Performance Management, ABB		
• Turning data into insight: Preparing for the advent of AI		
Annabel West, Head of Engineering Policy, SGN		
How can organisations align internally to ensure the identification and communication of mission critical data?		
Adam Claxton, Product Performance Manager, TechnipFMC		
What are the requirements for data quality and standardisation and how can engineers ensure these are met?		
Chris Pickford, Equipment Reliability Lead, Sellafield Ltd		
14:45 ROUNDTABLE SUMMARY DISCUSSION Facilitators summarise the outcomes of their roundtable discussion for all the audience. This provides the perfect opportunity to share valuable expertise and insights.		
15:05 NETWORKING REFRESHMENT BREAK		
RELIABILITY IMPLEMENTING NEXT-GENERATION DIGITAL TOOLS TO MEET CHANGING ASSET MANAGEMENT REQUIREMENTS		
DRIVING TANGIBLE BENEFITS THROUGH ADOPTING A FULL-LIFE DIGITAL TWIN APPROACH Simon Evans, National Digital Twin Delivery Lead, Centre for Digital Built Britain and		
Director, Digital Engineering, Atkins 16:05 ROLLS-ROYCE INTELLIGENT ENGINE AND INTELLIGENT SERVICES		
Leo Pickford, Strategic Capability Executive, Rolls-Royce		
16:35 HOW CAN DIGITAL TWINS SUPPORT ASSET MANAGERS IN IMPROVING RELIABILITY AND INCREASING UPTIME? Chris Steele, Head of Data and Analytics, Black & Veatch		
17:05 CHAIR'S CLOSING REMARKS		
17:15 END OF SEMINAR		

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

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

Delegate Type	EARLY BIRD RATE Until 31 January 2020	STANDARD RATE
Member, Institution of Mechanical Engineers / Supporting Organisation	£340 + VAT = £408	£375 + VAT = £450
Non-member	£420 + VAT = £504	£470 + VAT = £564
Full-time Student/Retired	£115 + VAT = £138	£130 + VAT = £156

THREE WAYS TO BOOK

1 online:

www.imeche.org/assetmanagement

2 email:

eventenquiries@imeche.org

+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

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

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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

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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.

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CONFERENCE VENUE

Institution of Mechanical Engineers One Birdcage Walk Westminster London SW1H 9.I.I

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OTHER EVENTS TO LOOK FOR



ESSENTIAL MANAGEMENT SKILLS 2020

1-3 April 2020, Coventry

This three-day conference will equip you with the skills required for success within line and project management roles. Attend this event to improve your ability to manage yourself, projects and teams. You can also take the opportunity to gain a Level 3 Award in First Line Management, awarded by the Chartered Management Institute (CMI).

www.imeche.org/ems



WIND TURBINE USER GROUP 2020

6-7 May 2020, London

This event is part of a popular series of power industry user groups that enable those involved in the management, operation and maintenance of wind turbines to discuss common problems and issues. Join us to exchange ideas, identify potential solutions and learn about new developments at our technical conference offering peer reviewed and high-level content.

www.imeche.org/windturbines

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.

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