# ONSHORE AND OFFSHORE WIND ENGINEERING 2018



# nstitution of HANICAL

## **KEY SPEAKERS INCLUDE:**

Steve Hillier, Asset Risk and Governance Team Leader **E.ON Climate and Renewables (EC&R)** 

Andrea Attorni, Lead Engineer Vestas Technology UK Ltd

Jamie Dempster, Operations & Maintenance Manager Engie

Alexios Koltsidopoulos Papatzimos, Offshore Wind Research Engineer **EDF Energy R&D UK Centre** 

Allan Crockett, Senior Engineer SSE

Graham Daws, Head of Operations and Asset Management **London Array** 



**EVENT PARTNERS:** 



Save 10% before 6 April 2018 www.imeche.org/windengineering

## Conference

23-24 May 2018 Manchester United Football Club, Manchester

# **ONSHORE AND OFFSHORE** WIND ENGINEERING 2018

23–24 May 2018, Manchester United Football Club, Manchester

WITH THE WIND INDUSTRY HAVING HALVED THEIR LEVELISED COST OF ENERGY (LCOE) IN RECENT YEARS TO UNDER £58 FOR EVERY MEGAWATT-HOUR OF ELECTRICITY PRODUCED, THERE IS ONGOING PRESSURE ON OUR ENGINEERS TO CONTINUE THAT REDUCTION.

Onshore and Offshore Wind Engineering 2018 focuses on managing the major engineering challenges including leading edge erosion and increase of blade length. Attend the event to gain best practice in reducing the cost in your operations and maintenance.

Hear experts in onshore and offshore wind share operational experiences and take back best practice to your organisation. Improve your condition monitoring and resource assessments by hearing about the latest technologies and techniques from leaders in the sector. Meet and discuss solutions to your challenges in wind industry engineering with representatives from across the field from operators to OEMs.

## **KEY PROGRAMME HIGHLIGHTS:**

- **E.ON Climate and Renewables** reveal how they manage large offshore repair projects
- Vestas Technology UK Ltd talk about the design process from conceptualisation to validation
- **EDF Energy** explain the process of integrating data from the various parties involved in a wind project
- **DTU Wind Energy** give an exclusive update on research into tackling leading edge erosion
- Siemens Gamesa discuss best practice in retrofitting through blade extensions

## ATTEND THIS EVENT TO:

- Hear from leaders in the wind industry including E.ON Climate and Renewables, Engie, London Array, EDF Energy, Siemens Gamesa and Vestas Technology UK Ltd
- Reduce risk in your operations and maintenance offshore by hearing case studies from successful projects carried out
- Discover the latest innovations in turbine and blade design to reduce your LCOE from pioneering organisations in the field
- Hear directly from the International Electrotechnical Commission (IEC) Working Group about changes to the wind sector IEC standards to ensure you are up-to-date
- Network with key players in the wind industry from operations and maintenance, design and asset engineers from operators, OEMS and solution providers

## WITH THANKS TO:

Simon Evans, Digital Engineering Development Manager, Energy **Atkins** 

Robert McMillan, Product Safety Officer and Head of Engineering Wind Power UK **Siemens Gamesa** 

Mark Porter, Director, Wind Operations **E.ON Climate and Renewables (EC&R)** 

# **BOOK EARLY AND SAVE UP TO 10%** OFFER ENDS 6 APRIL 2018

# PROGRAMME

DAY ONE	WEDNESDAY 23 MAY 2018		
08:30	REGISTRATION AND REFRESHMENTS		
09:00	CHAIR'S OPENING REMARKS		
	OVERVIEW OF THE WIND INDUSTRY		
<b>09:10</b> Keynote	INDUSTRY UPDATE ON THE UK OFFSHORE WIND MARKET Ray Thompson, Head Of Business Development, Siemens Gamesa Renewable Energy Limited		
	DEVELOPMENTS IN DESIGN FOR TURBINE PERFORMANCE		
09:40	ROTOR DESIGN: CHALLENGES AND TRADE-OFFS Andrea Attorni, Lead Engineer, Vestas Technology UK Ltd		
10:10	<b>BI-AXIAL FATIGUE TESTING OF WIND TURBINE BLADES</b> Peter Greaves, Research Engineer for Blades, ORE Catapult		
10:40	QUESTION AND ANSWER SESSION		
10:55	NETWORKING REFRESHMENT BREAK		
	TACKLING EROSION AND CORROSION		
11:25	<b>LEADING EDGE EROSION OF WIND TURBINE BLADES</b> Charlotte Bay Hasager, Senior Scientist, Team Leader in Meteorology and Remote Sensing Section, DTU Wind Energy		
11:55	A NEW APPROACH TO FOUNDATION CORROSION PROTECTION Henry Begg, Principal Project Leader – Surface Engineering, TWI		
12:25	<b>INFLUENCE OF RAIN EROSION AND ICE TEST ON LEP</b> Catherine Lester, Research Associate, Fraunhofer IWES		
12:55	QUESTION AND ANSWER SESSION		
13:10	NETWORKING LUNCH		
	MAINTENANCE IN CHALLENGING CONDITIONS		
14:10	PREPARING FOR OPERATIONS AND MAINTENANCE IN OFFSHORE WIND THROUGH OPERATIONS READINESS AND ASSET INTEGRITY ASSURANCE Jamie Dempster, Operations & Maintenance Manager, Engie		
14:40	MANAGING LARGE OFFSHORE REPAIR/UPGRADE PROJECTS Steve Hillier, Asset Risk and Governance Team Leader, E.ON Climate and Renewables (EC&R)		
15:10	NETWORKING REFRESHMENT BREAK		
15:40	<b>MONOPILES: A LEG TO STAND ON</b> Paul Barreto, Asset Integrity Manager - Offshore Wind, Atkins		
16:10	<b>USE OF BIG DATA TO IMPROVE OPERATIONAL MANAGEMENT IN OFFSHORE WIND</b> Graham Daws, Head of Operations and Asset Management, London Array		
16:40	QUESTION AND ANSWER SESSION		
17:00	CHAIR'S CLOSING REMARKS		
17:15	END OF DAY ONE		

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

• This programme is subject to change.

• The Institution is not responsible for the views or opinions expressed by individual speakers.

# BOOK YOUR PLACE TODAY **WWW.IMECHE.ORG/WINDENGINEERING**

TERMS AND CONDITIONS APPLY

# PROGRAMME

DAY TWO	THURSDAY 24 MAY 2018			
08:30	REGISTRATION AND REFRESHMENTS			
	OPTIMISING WIND ASSETS: HOW TO REDUCE YOUR LEVELISED COST OF ENERGY (LCOE)			
<b>09:10</b> Keynote	<b>RISK MANAGEMENT IN THE WIND INDUSTRY</b> James Middleton, Asset Governance Engineer, E.ON Climate and Renewables (EC&R)			
09:40	OFFSHORE WIND ACCELERATOR: ENGINEERING R&D TO REDUCE THE COST OF ENERGY Michael Stephenson, Offshore Wind Associate, Carbon Trust			
10:10	REDUCING LCOE THROUGH IMPROVING ACCURACY IN ENERGY PRODUCTION ESTIMATES AND WITH SMART OPERATIONS Marie-Anne Cowan, Senior Engineer, DNV GL – Renewables			
10:40	QUESTION AND ANSWER SESSION			
10:55	NETWORKING REFRESHMENT BREAK			
	NEW TECHNOLOGIES FOR EFFICIENT CONDITION MONITORING			
11:25	UNTANGLING THE WIND INDUSTRY: RESTRUCTURING OF THE INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC) WIND TURBINE STANDARDS Alan Derrick, Head of Technical Services, RES Group			
11:55	CONVERGENCE: THE EVOLUTION OF DATA REQUIREMENTS IN WIND ENERGY ASSESSMENT Peter Clive, Senior Scientist, Wood Group			
12:25	QUESTION AND ANSWER SESSION			
12:35	NETWORKING LUNCH			
13:35	<b>REDUCING OPEX THROUGH INTEGRATED DATA MANAGEMENT</b> Alexios Koltsidopoulos Papatzimos, Offshore Wind Research Engineer, EDF Energy R&D UK Centre			
	RETROFITTING OF ASSETS			
14:05	<b>CONTROLLING YOUR WIND TURBINE</b> Simon Pipkin, Energy Assessment Manager, REG Power Management			
14:35	<b>INCREASING RETURNS THROUGH BLADE UPGRADES</b> Arthur Pecher, Product Manager for Aerodynamic Features, Siemens Wind Power			
15:05	QUESTION AND ANSWER SESSION			
15:20	NETWORKING REFRESHMENT BREAK			
15:50	<b>DESIGN DEVELOPMENT, FABRICATION AND OFFSHORE INSTALLATION OF DEEP</b> <b>WATER WIND TURBINE FOUNDATIONS</b> Allan Crockett, Senior Engineer, SSE John O'Sullivan, Package Manager – Substructures, SSE			
<b>16:20</b> Panel	<ul> <li>THE FUTURE OF THE WIND INDUSTRY</li> <li>Following decommissioning, will the wind farms be replaced with others and are industry forward-planning for this?</li> <li>How can wind engineering support the increase of AEP in order to cope with the removal of subsidies?</li> <li>What technologies are needed to facilitate the new wind farms going into deeper waters?</li> </ul>			
16:50	CHAIR'S CLOSING REMARKS			
17:00	END OF CONFERENCE			

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TERMS AND CONDITIONS APPLY

# WHO SHOULD ATTEND?

#### Engineers with direct or indirect interest in Onshore and Offshore Wind Engineering at the following types of organisations:

- Wind Farm Owners and Operators
- Wind Project Developers
- Wind Power Integrators and Installers
- Wind Technology Developers and Manufacturers

- Wind Turbine OEMs
- Government and Regulators
- Utilities and Power Companies
- Wind Power Technology Research and Development Organisations
- Solution and Technology Providers
- Energy Analysts



## FEEDBACK FROM PAST POWER EVENTS:

"AN EXCELLENT KNOWLEDGE SHARING AND NETWORKING EVENT FOR INDUSTRY PROFESSIONALS"

#### "THIS IS AN EXCELLENT NETWORKING EVENT WHICH SHOULD NOT BE MISSED"

Siemens

## RWE

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#### **CONTACT THE SPONSORSHIP TEAM ON:** T: +44 (0)20 7304 6853

E: d\_anglin@imeche.org

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## 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 6 April 2018	Standard Rates
Member, Institution of Mechanical Engineers / Supporting Organisation	£380 + VAT = £456	£420 + VAT = £504
Non-member	£480 + VAT = £576	£520 + VAT = £624
Student/Retired	f120 + VAT = f144	£150 + VAT = £180

#### THREE WAYS TO BOOK

#### 1 Online:

www.imeche.org/windengineering 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

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 uplace a mutually comparison 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**

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

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#### OTHER EVENTS TO LOOK FOR



#### ESSENTIAL MANAGEMENT SKILLS 2018

#### 18-20 April 2018, Coventry

The conference programme will consist of lectures and workshops focused on developing leadership, communication and project management skills. Plus take the opportunity to complete the Level 3 Award in First Line Management, awarded by the Chartered Management Institute.



#### HYDROPOWER ENGINEERING: **TECHNOLOGIES, PROJECTS** AND FUTURE DEVELOPMENTS

#### 14 June 2018, London

Attend this event to find out about engineering challenges and solutions affecting existing and future hydropower projects. Discover exciting technological innovations and how they are expected to affect hydropower generation.

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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