

STEAM TURBINE AND GENERATOR USER GROUP 2019

Institution of
**MECHANICAL
ENGINEERS**

13–14 March 2019
Old Trafford, Manchester United
Football Club

More details available at
www.imeche.org/stug

KEY SPEAKERS INCLUDE:

Paul Evans, Station Manager
Drax Power

James Stagnitti, Combined Cycle Steam
Turbine Services Leader
GE

Ondrej Novák, R&D Specialist
Doosan Skoda Power

Tobias Gabl-Zimmek, Steam Turbine Automation -
Functional Safety Engineer
Siemens AG

Lee Beresford, Condition Monitoring Team Leader
Uniper

Graham Young, Rotating Equipment Specialist
EDF Energy



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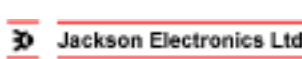
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STEAM TURBINE AND GENERATOR USER GROUP 2018

13–14 March 2019, Manchester United Football Club,
Old Trafford, Manchester

FIND SOLUTIONS FOR KEY CHALLENGES FACING THE MANUFACTURERS AND OPERATORS OF STEAM TURBINE AND GENERATOR TECHNOLOGIES

This event will enable those involved in the management, operation and maintenance of steam turbines and generators to discuss common problems and issues. Join us to exchange ideas, identify potential solutions and learn about new developments at our leading technical event offering peer reviewed and high level content. Hear directly from OEMs, service providers and end users of steam turbines, generators and large motors about the latest technologies available. Learn from case studies in plant operations, and best practice in turbine and generator service.

The Institution's User Groups encourage open debate and problem solving to our technical and specialist communities. Hear from key peer reviewed presentations and promote the sharing of experiences among the steam turbine generator community. Engage and network with thought leaders and decision makers across the industry.

KEY PROGRAMME HIGHLIGHTS:

- Gain insight into the current trends in the energy market with presentations from **Brush Electrical Machines** and **FM Global**
- **Doosan Skoda Power, GE Power, Uniper** and **Horizon Nuclear Power** will deliver presentations on the latest Steam Turbine, Generator and Large Motor Technologies
- Explore strategies for Steam Turbine and Generator Integrity and Reliability with **SvoBaTech AG, Environment One Corporation, Rendcombe Consultancy Ltd** and **Hardide Plc**
- Learn best practice for Steam Turbine Service and Generator condition monitoring with **RWE Generation UK, Siemens Newcastle, Engie** and **EDF Energy**
- Hear presentations about the use of robots for asset inspections from **Ansaldo Energia** and **Toshiba**

ATTEND THIS CONFERENCE TO:

- **Network** at our dinner with leading manufacturers, operators and service providers within the steam turbine and generator community
- **Gain insight** into the current position of the UK power generation industry from policy advisors, major utility companies and manufacturers
- **Learn** from real-life case studies illustrating project experience and best practice
- **Discover** the latest steam turbine and generator developments and technologies
- **Hear** advice from leading specialists on a wide number of issues
- **Understand** how to manage and minimise plant risks and improve the performance of your plant

ORGANISING / ADVISORY COMMITTEE:

Fossil Power Committee, Power Industries Division
Institution of Mechanical Engineers.

MEMBERS CREDITS:

Richard Martin Turbine Engineering Consultants	James Fogden Toshiba International (Europe)
Andrew Laycock Centrica Energy	James Hough SSE Engineering Centre
Ben Adams Hawkins	Mike Jones GE Power
Colin Caldwell Scottish Power	Nigel Carter Engie
Christopher Whiteley SSE Engineering Centre	Paul Cooper GE Power
Dave Wallis Rendcomb Consultancy	Richard Stewart EDF Energy
Geoff Horseman Siemens	Roy Beardshaw Brush Electrical Machines
Ian Rowntree Uniper Energy	Paul Roper RWE Generation UK

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WWW.IMECHE.ORG/STUG

TERMS AND
CONDITIONS
APPLY

PROGRAMME

WEDNESDAY 13TH MARCH 2019	
08:30	REGISTRATION AND REFRESHMENTS
09:00	CHAIR'S OPENING REMARKS
	INDUSTRY TRENDS
09:10	KEYNOTE ADDRESS Paul Evans, Station Manager, Drax Power
09:30	STEAM TURBINE: WHAT DRIVES LOSSES David Smith, Assistant Vice President – Senior Engineering Specialist, FM Global
09:50	AN UPDATE ON THE WORK OF THE IEEE ELECTRICAL MACHINERY COMMITTEE GRID CODE TASK FORCE Robert Thornton-Jones, Head of Technology - Controls Engineering, Brush Electrical Machines
10:10	QUESTION AND ANSWER SESSION
10:25	NETWORKING REFRESHMENT BREAK
	STEAM TURBINE TECHNOLOGIES
11:00	NANOSTRUCTURED CVD W/ WC COATING WITH ENHANCED RESISTANCE TO WATER DROPLET EROSION CAN EXTEND LIFE OF STEAM TURBINE BLADES Dr.Yuri Zhuk, Technical Director, Hardide Plc
11:20	STEAMPATH TECHNOLOGY - ADVANCED COATINGS AND SEALS James Stagnitti, Combined Cycle Steam Turbine Services Leader, GE
11:40	PORTFOLIO OF HIGHLY EFFICIENT LAST STAGE BLADES FOR HIGH BACK PRESSURES Ondrej Novák, R&D Specialist, Doosan Skoda Power
12:00	RETROFITTABLE INNER CASING RADIAL AXIAL STAGE ("RADAX") STEAM TURBINE UPGRADE FOR IMPROVED RELIABILITY AND DURABILITY IN A GROWING RENEWABLE POWER GENERATION MARKET Fabrizio D'Agostino, Global Product Manager, Shaftline Steam Turbines & Generators, Ansaldo Energia
12:20	QUESTION AND ANSWER SESSION
12:35	NETWORKING LUNCH
	STEAM TURBINE INTEGRITY
13:35	NUMERICAL LIFETIME ASSESSMENT OF STEAM TURBINE COMPONENTS Simon Farley, Leader, Mechanical Integrity, Steam Turbine Engineering, GE
13:55	EFFECT OF WET STEAM INDUCTION DURING SHUTDOWN PROCESS, STEAM TURBINE CASE Varach Sangthongstid, Engineer, Steam Turbine Department, Electricity Generating Authority of Thailand
14:15	MANAGEMENT OF PLANT RISKS – RISK CRITERIA, LIMITS AND ASSESSMENT METHODS Tobias Gabl-Zimmek, Steam Turbine Automation - Functional Safety Engineer, Siemens AG
14:35	ANALYSIS AND MODIFICATION OF SHAFTLINE TORSIONAL EIGENFREQUENCIES Bert Menshaert, Senior Steam Turbine Engineer and Jean-Louis Farvacque, Powertrain Technology Manager, Engie
14:55	QUESTION AND ANSWER SESSION
	GENERATOR TECHNOLOGIES
	NEW GENERATION TURBO GENERATORS CAPABLE OF HIGH CYCLIC OPERATION WITH MINIMAL SUPERVISION AND MAINTENANCE EFFORT Andrew Crosby, Section Head Generator Service Engineering, Siemens Newcastle
	UNDERSTANDING YOUR GENERATOR – WHY CHANGING THE DESIGN MAY NOT BE A GOOD IDEA David Wallis, Director, Rendcombe Consultancy Ltd
	IMPROVING RELIABILITY OF GENERATOR STATOR COOLING WATER SYSTEMS Matthias Svoboda, President, SvoBaTech AG
	STATOR BAR DESIGN MANUFACTURING AND TESTING Russell J. Chetwynd, Service Manager, National Electric Coil
	QUESTION AND ANSWER SESSION
	GENERATOR INTEGRITY
	AUTOMATIC BRUSH LIFTING SYSTEM FOR GENERATORS AND/OR SYNCHRONOUS CONDENSERS USING STATIC EXCITATION Johannes Beyer, Generator Lifetime Performance Engineer, Siemens
	GENERATOR MOTORING INCIDENT Roy Beardshaw, Head of Engineering, Brush Electrical Machines
	GENERATOR RETAINING RING INSPECTION BEST PRACTICE Chris Ward, Lead Inspection Engineer, RWE Generation UK
	SPEAKER TO BE ANNOUNCED
	QUESTION AND ANSWER SESSION

PROGRAMME

15:15	NETWORKING REFRESHMENT BREAK	
	PLANT OPERATION	PLANT CONSTRUCTION AND COMMISSIONING
15:45	STEAM TURBINE BEARING OPERATING INCIDENTS AND INVESTIGATION Mike Jones, Principal Engineer, Steam Turbine Engineering, GE	KEADBY 2 NEW BUILD CCGT Mark Birley, Head of Product Engineering, SSE and Andreas Pickard, Head of R&D Management Energy Solutions, Siemens AG
16:05	DEVELOPMENT OF HOT STANDBY MODE FOR FLEXIBLE STEAM TURBINE OPERATION George Cleaver, Steam Turbine Thermodynamics And Operation Engineer, Siemens Newcastle	COMMISSIONING OF STEAM TURBINES: NEW BUILD AND POST OVERHAUL James Betts, Steam Turbine Engineer, Uniper Energy
16:25	BUILDING VIBRATION: TURBINE GENERATOR SHAFT-LINE INVESTIGATION AND RESOLUTION - CASE STUDY Lee Beresford, Condition Monitoring Team Leader, Uniper Energy	AN INTEGRATED STRATEGY FOR ASSET VALUATION AND DISPOSAL OF SURPLUS AND REDUNDANT STEAM TURBINES AND ANCILLARY EQUIPMENT Mike Craigie, Owner, Craigie Engineering Sales & Services (CESS)
16:45	DOUBLING THE INSPECTION INTERVALS OF STEAM TURBINE COMPONENTS WITH CONDITION BASED MAINTENANCE Andreas Schaarschmidt, Technical Project Lead, Advisory Engineer, Siemens AG	QUESTION AND ANSWER SESSION
17:05	QUESTION AND ANSWER SESSION	
17:20	CLOSE OF CONFERENCE DAY ONE	
18:30	NETWORKING DRINKS RECEPTION	
19:30	NETWORKING DINNER	

THURSDAY 14TH MARCH 2019		
08:30	REGISTRATION AND REFRESHMENTS	
09:00	CHAIR'S OPENING REMARKS	
	BEST PRACTICE IN STEAM TURBINE SERVICE	BEST PRACTICE IN GENERATOR SERVICE
09:10	MANAGING END OF STATION LIFE TURBINE MAINTENANCE Ajaz Khan, Engineering Manager, EDF Energy	INTEGRITY ASSESSMENT AND SUBSEQUENT REPAIR OF GENERATOR ROTOR ARCING DAMAGE FOLLOWING REVERSE POWER INCIDENTS Jamie Kirk, Generator Operational Support Engineer, Siemens
09:30	RECENT DEVELOPMENTS IN ADDITIVE MANUFACTURING METHODS FOR ON-SITE PARTS REFURBISHMENT Christoph Doeppe, Head of Welding Technology, Siemens AG	TURBO GENERATOR TESTING WITH THE ROTOR IN SITU Jan Willem Noteboom, DEKRA
09:50	ADVANCED REMOTE VISUAL INSPECTION FOR TURBINES Ross Woodside, Senior Visual Inspector, Visual Testing Services	SYNCHRONOUS CONDENSER SOLUTIONS Wolfgang Walter, Generator Product Line Engineering – Synchronous Condenser Product Leader, GE Power Samir Besirevic, Maintenance Engineer – Electrical, Uniper Energy
10:10	STEAM TURBINE WET DROPLET EROSION: AVAILABILITY IMPROVEMENT PROGRAM IMPLEMENTED AT UAE-BASED POWER STATION Enrico Foglino, Mechanical Engineer, Ansaldo Energia SpA	GENERATOR MOTORING. IT HAPPENS MORE THAN YOU THINK! Wojciech Betlej, International Business Development Manager, Quartzelec
10:30	QUESTION AND ANSWER SESSION	QUESTION AND ANSWER SESSION

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

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

PROGRAMME

10:45	NETWORKING REFRESHMENT BREAK	
	GENERATOR INSPECTION AND MONITORING	TURBINE GENERATOR OIL SYSTEMS
11:15	ON-LINE PARTIAL DISCHARGE CONDITION MONITORING TECHNIQUES OF ROTATING MACHINES Speaker to be announced, HVPD	OIL MANAGEMENT Graham Young, Rotating Equipment Specialist, EDF Energy
11:35	ON-LINE PD TESTING OF ROTATING MACHINES - INFLUENCE OF STATOR WINDING IMPREGNATION PROCESS Howard Sedding, Insulation Engineer, Qualitrol Iris Power	ELIMINATION OF ELECTROSTATIC DISCHARGE IN HYDRAULIC AND LUBRICATING CIRCUITS, A HISTORICAL PERSPECTIVE John Duchowski, Corporate Director R&D Filtration, HYDAC
11:55	LIFE CYCLE MAINTENANCE COST IMPROVEMENT USING INNOVATIVE TECHNOLOGY IMPLEMENTATION FOR GENERATOR ROBOTIC INSPECTIONS Fabrizio D'Agostino, Global Product Manager, Shaftline Steam Turbines and Generators , Ansaldo Energia	SPEAKER TO BE ANNOUNCED
12:15	GENERATOR DE-GASSING AND PURGING: BEST PRACTICES FOR SAFE PLANT OPERATION Gus Graham, Director of Products & Markets – Hydrogen Systems, International, Environment One Corporation	SPEAKER TO BE ANNOUNCED
12:35	QUESTION AND ANSWER SESSION	QUESTION AND ANSWER SESSION
12:50	NETWORKING LUNCH	
	TURBINE GENERATOR PLANT OPTIMISATION	
13:50	REPLACEMENT TURBINE CONTROL SYSTEMS Eetu Oittinen – Product Manager Turbine Automation, Valmet Automation Ltd	
14:10	INTRODUCING A RISK BASED TURBINE-CENTRELINE MAINTENANCE STRATEGY TO A NUCLEAR POWER PLANT Lia Bucks, Consultant, Decision Analysis Services	
14:30	OPTIMISING FLEXIBLE ELEMENT COUPLING SELECTIONS FOR TURBINE AND GENERATOR APPLICATIONS Neil Slater, Sales Support Engineer, John Crane	
14:50	ACHIEVING BETTER BOLTING WITH NORD-LOCK: THE USE OF MULTI-JACKBOLT TENSIONER FASTENERS FOR HIGH-DUTY BOLTED JOINTS Ian Mander, Technical Sales Engineer, Nord-Lock Group	
15:10	QUESTION AND ANSWER SESSION	
15:25	NETWORKING REFRESHMENT BREAK	
	ADVANCED INSPECTION TECHNIQUES	
15:55	ROBOTIC INSPECTION TECHNOLOGY FOR TURBO-GENERATOR Tatsuya Ishikawa, Specialist, Toshiba	
16:15	RECENT INSPECTION AND REPAIR TECHNOLOGIES FOR BLADE ATTACHMENTS OF LOW PRESSURE STEAM TURBINE ROTORS Hans Rauschenbach, Siemens Power Generation Services	
16:35	INVESTIGATION AND REPAIR OF A ROTOR CRACK IN A STEAM TURBINE OF OTHER MANUFACTURE OPERATING IN A FLEXIBLE SEGMENT Klaus Helbig, Engineering Manager - Life Cycle Condition Assessment, GE	
16:55	SPEAKER TO BE ANNOUNCED	
17:15	QUESTION AND ANSWER SESSION	
17:25	CHAIR'S CLOSING REMARKS	
17:30	END OF CONFERENCE	

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 ENDS 25 JANUARY 2019	STANDARD RATE
Member, IMechE/supporting organisation	£590 + VAT = £708	£650 + VAT = £780
Non-member	£750 + VAT = £900	£830 + VAT = £996
Student/Retired	£215 + VAT = £258	£230 + VAT = £276

THREE WAYS TO BOOK

- 1 Online:
www.imeche.org/stug
- 2 Email:
eventenquiries@imeche.org
- 3 Phone:
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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

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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.

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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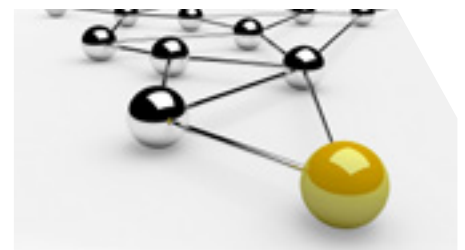


NON DESTRUCTIVE TESTING 2019

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.

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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.

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