

STEAM TURBINE AND GENERATOR USER GROUP 2015

Institution of
**MECHANICAL
ENGINEERS**

25-26 March 2015
Warwick Conferences, The University of Warwick, Coventry
www.imeche.org/events/C6170

Power Industries Division
Conference

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STEAM TURBINE AND GENERATOR USER GROUP 2015

25-26 March 2015

Warwick Conferences, The University of Warwick, Coventry



THE TWO-DAY STEAM TURBINE AND GENERATOR USER GROUP 2015 IS THE NEXT IN THIS POPULAR SERIES OF THE INSTITUTION'S POWER GENERATION USER GROUPS.

This event will enable those involved in the management, operation and maintenance of steam turbines and generators to discuss common problems and issues, exchange ideas, identify potential solutions and learn about new developments.

The Institution's User Groups encourage open debate and problem solving, using informal presentations and discussion forums to promote networking and sharing experiences among the steam turbine generator community.

BENEFITS OF ATTENDANCE:

- **Learn** from real-life case studies illustrating project experience and best practice
- **Improve** the performance of your plant
- **Discover** updates on the latest industry developments and technologies
- **Hear** advice from leading specialists on a wide number of issues
- **Understand** how to manage and minimise plant risks

KEY TOPICS COVERED INCLUDE:

- Plant operation and ownership
- Turbine and generator failures, case studies and repair methods
- Steam turbine technologies
- Generator technologies
- Turbine and generator auxiliary systems and condensers
- Turbine overhauls and life extension
- Generator overhauls and life extension
- Plant condition monitoring and control
- Industrial/CHP/renewables turbine generators
- Steam turbine and generator projects
- Steam turbine last stage blading

SPONSORSHIP AND 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

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PROGRAMME

DAY 1		WEDNESDAY 25 MARCH 2015	
	08:30	REGISTRATION AND REFRESHMENTS	
	09:00	CHAIR'S WELCOME AND INTRODUCTION	
	SESSION 1 - PLANT OPERATION AND OWNERSHIP		
	09:10	KEYNOTE: HIGH LEVEL POWER INDUSTRY INSURANCE Don Schubert, Senior Vice President, Marsh Energy Practice	
	09:30	POWER PLANT PERFORMANCE ASSESSMENT PROCESS Tim Eastwood, Business Development Director, Alstom	
	09:50	BLACKBURN MEADOWS RENEWABLE ENERGY PLANT - CHALLENGES DURING CONSTRUCTION AND COMMISSIONING OF THE STEAM TURBINE AND GENERATOR SYSTEMS Paul Housley, Steam Turbine Engineer, ETG, EON	
	10:10	Q&A SESSION	
	10:30	NETWORKING REFRESHMENT BREAK	
		SESSION 2 - PARALLEL SESSIONS	
		2A STEAM TURBINE TECHNOLOGIES	2B GENERATOR TECHNOLOGIES
11:00		RECENT ADVANCES IN COMBINED CYCLE STEAM TURBINE TECHNOLOGY Rainer Quinkertz, Product Manager, Siemens	LATEST GENERATOR TECHNICAL DEVELOPMENTS Andrew Crosby, Section Head, Generator Engineering Scott Robinson, Generator Frame Owner, Siemens
11:20		FORCED MISTUNING APPLIED TO FREE-STANDING LAST STAGE BLADES OF THE CP2-1300 MW LOW PRESSURE STEAM TURBINES Sébastien Roques, Senior Engineer, EDF	SHAFT-LINE MODELS AND TORSIONAL NATURAL FREQUENCIES FOR A GRID SUB-SYNCHRONOUS RESONANCE STUDY Nik Zelenovic, Principal Engineer, Alstom
11:40		LAST STAGE STEAM TURBINE BLADE VIBRATION ASSESSMENT AND DESIGN MODIFICATIONS TO ELIMINATE THE CRITICAL WHEEL RESONANCE Mehran Zanjani, Structural Analysis Engineer, ETG, EON	A CASE STUDY OF RETAINING RING CRACKS FROM GRID TRANSIENTS Neil Kilpatrick, Principal Expert Engineer, Siemens
12:00		STEAM TURBINE LOW PRESSURE LAST-STAGE BLADE ROOT NON-DESTRUCTIVE TESTING INSPECTIONS – PRACTICAL EXPERIENCE Paul Crowther, Group Head - Inspection Management, RWE npower	CONVERSION OF ROTATING EXCITATION SYSTEMS TO STATIC Doug Cope, Electrical Engineer, Excitation and Engineering Services
12:20		Q&A SESSION	
12:40		NETWORKING LUNCH	

SESSION 3 - TURBINE DEGRADATION, FAILURES AND CASE STUDIES	
13:40	STRATEGIC SPARES INVESTMENT Joe Eckersley, Strategic Spares Manager, EDF Energy
14:00	UNDERSTANDING VARNISH BUILD-UP MECHANISMS ON STEAM TURBINE AND GENERATOR LUBRICANTS Jo Ameye, European Sales and Marketing Manager, Fluitec
14:20	IMPORTANT ASPECTS OF LP TURBINE OPERATION John Gilroy, Senior Design Engineer, Siemens
14:40	IRONBRIDGE LP TURBINE LAST ROW BLADE FAILURE Ben Morrell, Rotating Plant Engineer, ETG, EON
15:00	Q&A SESSION
15:20	NETWORKING REFRESHMENT BREAK
SESSION 4 - GENERATOR DEGRADATION, FAILURES AND CASE STUDIES	
15:50	TOP TEN GENERATOR FAILURES AND WHAT YOU CAN DO TO PREVENT THEM Bill Moore, Director, National Electric Coil
16:10	IMPACT OF NEW FLEXIBLE LOAD OPERATION AND GRID CODES ON TURBINE GENERATORS FOCUSING ON STATOR END WINDINGS Thorsten Krol, Generator Business Development and Marketing, Siemens
16:30	GENERATOR FAULTS AND FAILURES - UTILITY/INSURERS' PERSPECTIVE Don Shubert, Senior Vice President, Marsh Energy Practice
16:50	Q&A SESSION
17:10	CHAIR'S CLOSING REMARKS
17:20	CLOSE OF DAY ONE
19:00	NETWORKING DINNER

DAY 2	THURSDAY 26 MARCH 2015
08:30	REGISTRATION AND REFRESHMENTS
09:00	CHAIR'S OPENING REMARKS
SESSION 5 - MATERIALS AND INTEGRITY ANALYSIS	
09:10	MATERIALS FOR LARGE STEAM TURBINES Geoff Horseman, Chief Turbine Engineer, Torsten-Ulf Kern, Principal Engineer Materials, Siemens Doug Gass, Section Manager Materials and Performance Testing, Siemens
09:30	APPLICATION OF A NEW FRACTURE - MECHANICS BASED CREEP - FATIGUE PROCEDURE FOR STEAM TURBINE ROTORS Henning Almstedt, Principal Expert, Siemens Shilun Sheng, Advisory Expert, Siemens
09:50	THE INTERACTION BETWEEN SHOT PEENING AND EROSION NOTCHES ON LAST STAGE BLADE AEROFOIL SECTIONS: STRESS DISTRIBUTIONS AND FATIGUE RESISTANCE Katherine Soady, Structural Analysis Engineer, ETG, EON
10:10	Q&A SESSION
10:20	NETWORKING REFRESHMENT BREAK

SESSION 6 - TURBINE GENERATOR AUXILIARY SYSTEMS

11:00	BASIC INTRODUCTION TO STEAM TURBINE GOVERNING REQUIREMENTS Stuart Rowe, Manager Controls and Auxiliaries, Alstom
11:20	HYDRAULIC CONTROLS AND PROTECTION UPGRADES FOR GEC-ALSTOM STEAM TURBINES Wolfgang Warmuth, Technical Sales Manager, Siemens
11:40	MAIN BOILER FEED PUMP TURBINE PIPEWORK REPLACEMENT Bob Thomson, Project Manager, EDF
12:00	Q&A SESSION
12:20	NETWORKING LUNCH

SESSION 7 - PARALLEL SESSION

	7A TURBINE OVERHAULS AND LIFE EXTENSION	7B GENERATOR INTEGRITY MANAGEMENT
13:20	EVENT RECOVERY – MANAGING AN UNPLANNED SHUTDOWN August Pandey, Turbine and Ancillaries Plant Manager, EDF	THE INFLUENCE OF AUXILIARY SYSTEMS ON MAIN GENERATOR AVAILABILITY AND RELIABILITY David Thompson, Plant Check-Up Manager, Alstom
13:40	DRAX IP RETROFIT - IDEA CONCEPT TO PROJECT INSTALLATION Richard Armstrong, Site Manager, Siemens Mark Simmonds, Turbine Engineering, Drax Power	OFF-LINE PARTIAL DISCHARGE MEASUREMENTS ON LARGE GENERATION PLANT Chris Burtle, Senior Electrical Diagnostics Engineer, Siemens
14:00	OLKILUOTO LP TURBINE EXHAUST PERFORMANCE ENHANCEMENT PROGRAMME Phil Hemsley, Engineering Technology Manager, Alstom	ABNORMAL OPERATION OF GENERATORS Steve Mitchell, Lead Electrical Machines Engineer, RWE Generation UK
14:20	Q&A SESSION	
14:40	NETWORKING REFRESHMENT BREAK	

SESSION 8 - INSPECTION AND MONITORING

15:10	SMARTSIGNAL TECHNOLOGY: OVERVIEW AND USE BY SSE MONITORING CENTRE John Twiddle, Equipment Performance Centre Manager, SSE Mark Bate, Solution Consultant, Smart Signal
15:30	VIBRATION MEASUREMENTS OF TURBOGENERATOR STATOR END-WINDINGS Peter Arend, Principal Engineer, Alstom
15:50	EXPERIENCE WITH ADVANCED NDT METHODS IN TURBINE FIELD SERVICE Hans Rauchenbach, Head of NDT Laboratory, Siemens Michael Opheys, NDT Engineer, Siemens
16:10	Q&A SESSION
16:30	CLOSING REMARKS
16:40	CLOSE OF USER GROUP

Find out more about our speakers at www.imeche.org/events/C6170

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

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- Nigel Carter, GDF Suez
- Paul Cooper, Alstom Power
- Alain Foote, Alstom Power
- Geoff Horseman, Siemens
- Andrew Laycock, Centrica Energy
- Richard Martin, Turbine Engineering Consultants Ltd
- Matthew Patch, SSE Engineering Centre
- Ian Rowntree, E.ON New Build and Technology Limited
- Richard Stewart, EDF Energy
- Dave Wallis, Rendcomb Consultancy Limited

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BOOKING FORM

EVENT CODE: C6170AB

EARLY BIRD ENDS 23 JANUARY 2015

STEAM TURBINE AND GENERATOR
USER GROUP 2015

25-26 March 2015

Warwick Conferences,
The University of Warwick,
Coventry CV4 7AL

REGISTRATION Please complete in capitals.

Family Name	Title (Mr, Mrs, Miss)
First Name	Job Title
Membership No	Institution
Name of Organisation (for name badge)	
Address for correspondence	
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Do you have any special requirements?	

How did you hear about this event? ☐ Direct mail ☐ Website ☐ Colleague ☐ Other

We would like to keep you informed of relevant services that may be of benefit to you. Please tick the boxes below to let us know what you're interested in:

☐ Events and training opportunities

☐ News and updates from the Institution

☐ Services and offers from our preferred partners

FEES AND CHARGES Please complete the appropriate box.

Registration fees include entry to the sessions, refreshments and lunch.

	EARLY BIRD RATE Before 23 January 2015	STANDARD RATE	TOTAL
Member, Institution of Mechanical Engineers	£489.50+VAT	£575.00+VAT	£
Member, supporting organisation	£489.50+VAT	£575.00+VAT	£
Non-member	£555.00+VAT	£655.00+VAT	£
Student/retired	£168.30+VAT	£198.00+VAT	£

☐ Please tick if you would like to attend the complimentary User Group Dinner.
25 March 2015 at 19:00, University of Warwick.

Please indicate any dietary requirements.

PAYMENT DETAILS

Payment must accompany this registration form. Registration will be confirmed only on receipt of full payment.

PLEASE INDICATE METHOD OF PAYMENT:

☐ **Cheque** Cheques should be made payable to IMechE and crossed. Please note international delegates may pay only by credit card, BACS or banker's draft. A copy of the draft must accompany this form. It is the delegate's responsibility to pay any bank charges.

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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.

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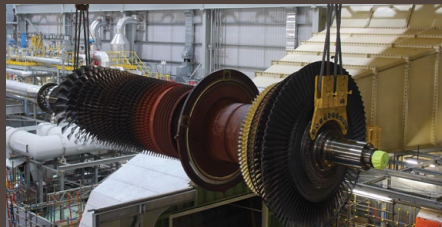


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