13TH EUROPEAN FLUID MACHINERY CONGRESS
LEVERAGING THE LATEST TECHNOLOGY TO TACKLE ENGINEERING CHALLENGES

3-4 October 2016
Bilderberg Europa Hotel
Scheveningen, The Hague

Conference dinner – 3rd October
Meet and Network at the end of Day 1

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OFFER ENDS 12 AUGUST 2016
TERMS AND CONDITIONS APPLY

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THE RENOWNED 13TH EUROPEAN FLUID MACHINERY CONGRESS RETURNS TO THE HAGUE TO HIGHLIGHT THE LATEST DEVELOPMENTS IN FLUID MACHINERY FROM EUROPE AND ACROSS THE GLOBE.

You will learn about the latest technology, including CFD, to take cost-efficient strategies to your business to tackle core engineering challenges.

This event is a unique opportunity to share your insight and learn from other fluid machinery projects in various stages of implementation. Learn from key experiences in design, operation and maintenance with leaders from across sectors including oil and gas, nuclear and water.

**Committee:**
- Arie Aartsen, Technical Representative, ArtsenCrafts BV
- Robert Brown, Head of Engineering, Sulzer
- Harald Carrick, Consultant, Process Industry Machinery Expertise (PrIME)
- Frits de Jongh, Operations Manager, EthosEnergy
- Ahmed Kovacevic, Professor, City University London
- John Middleton, Rotating Machinery Engineer
- Ivor Rhodes, Consultant, ACE Cranfield
- Stephen Shaw, Group Engineering Director, AESSEAL plc
- Jans Smeulers, TNO Science and Industry
- Pharic Smith, Sulzer
- Andrew Walker, Machines Engineer, SABIC
- Simon Whatley, Director, Mech2o Engineering Ltd

**Day 1 Highlights:**
- SABIC UK Petrochemicals share lessons learned when investigating the catastrophic failure of a barrel type centrifugal compressor
- Get perspectives from Technip on technical evaluations of centrifugal compressor bids for oil and gas projects
- Insights on gas compressor re-rate and process solutions through engineering and collaborations, presented by Weir Group
- Hear successful and effective uses of AP682 Plan 53B Barrier fluid systems from AESSEAL plc, with particular focus on operating climates with large ambient temperature changes

**Day 2 Highlights:**
- James Fisher Defence detail the latest regulatory compliance requirements for engineers and fluid machinery manufacturers
- An Aero-Acoustic analysis of a low-pressure centrifugal compressor stage, presented by TNO
- Safran Labinal Power Systems detail their estimations of instability critical velocities of fluid-conveying pipes
- Hear the results of combining CFD, FEA and scripting for efficient oil vane pump integrity assessment from Code Product Solutions

**Why Attend?**
- Hear over 20 presentations led by representatives from over 7 countries, including The Netherlands, Germany, Singapore and Algeria
- Gain valuable insights from academia, multinational companies, legal professionals and more
- Join the dedicated conference dinner and network with fluid machinery specialists at an international level
- Meet and share experience with senior industry professionals covering the design, operation and maintenance of fluid machinery

**BOOK EARLY**
**SAVE 10%**

WWW.IMECHE.ORG/FLUIDMACHINERYCONGRESS
08:30 REGISTRATION AND REFRESHMENTS
09:00 CHAIR’S OPENING REMARKS
09:10 PERSPECTIVES ON TECHNICAL EVALUATION OF CENTRIFUGAL COMPRESSOR BIDS FOR OIL AND GAS PROJECTS
Mounir Mossolly, Technip, France
09:35 GAS COMPRESSOR RE-RATE AND PROCESS SOLUTIONS THROUGH ENGINEERING AND COLLABORATIONS
Barry Hall, Weir Group
10:00 LASER-POWER-CLADDING AS RECONDITIONING TECHNOLOGY FOR HIGH VALUE PARTS
Dr. Florian Wagner, Gall & Seitz Systems GmbH, Germany
10:25 INVESTIGATION AND REPAIR OF A CATASTROPHIC FAILURE OF A BARREL TYPE CENTRIFUGAL COMPRESSOR
Andrew Walker, SABIC UK Petrochemicals, UK
10:50 QUESTION AND ANSWER SESSION
11:05 NETWORKING REFRESHMENT BREAK
11:35 COMPUTATIONAL ANALYSIS OF THE EFFECTS OF MANUFACTURING TOLERANCES ON THE PERFORMANCE OF A REGENERATIVE LIQUID RING PUMP
Nilla-Helene Karlsen-Davies, Lancaster University, UK
12:00 CFD ANALYSES AND CHARACTERIZATION OF A SMALL MODEL OF WATER BULB TURBINE
Dr. Adel Ghenaiet, University of Sciences and Technology, Algeria
12:25 SIMULATIONS OF FLOWS IN A CONTRA-ROTATING AXIAL FAN
Dr. Adel Ghenaiet, University of Sciences and Technology, Algeria
12:50 QUESTION AND ANSWER SESSION
13:05 NETWORKING LUNCH
14:05 TRUE INNOVATION IN AIR COMPRESSION
Jenny Rohde, Lontra Ltd, UK
14:30 DESIGN, ANALYSIS AND PERFORMANCE OF TWIN-SCREW STEAM EXPANDERS IN INDUSTRIAL APPLICATIONS
Marco Iezzi, City University London, UK
14:55 DEVELOPMENTS IN PTFE FACED THRUST BEARINGS FOR USE IN VERTICAL PUMP APPLICATIONS
Steve Dixon, Michell Bearings Ltd, UK
15:20 QUESTION AND ANSWER SESSION
15:35 NETWORKING REFRESHMENT BREAK
16:05 REVOLVING VANE: A NOVEL POSITIVE DISPLACEMENT COMPRESSING MECHANISM FOR COMPRESSORS AND PUMPS
Dr. Kim Tiow Ooi, Nanyang Technological University, Singapore
16:30 A COMPACT WATER-INJECTED SCREW COMPRESSOR WITH HIGH VOLUMETRIC EFFICIENCY
Oleg Dmitriev, Vert Rotors UK Ltd, UK
16:55 QUESTION AND ANSWER SESSION
17:05 CHAIR’S CLOSING REMARKS
17:15 END OF DAY ONE
19:00 CONGRESS NETWORKING DINNER

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

• This programme is subject to change.
• The Institution is not responsible for the views or opinions expressed by individual speakers.
<table>
<thead>
<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>08:30</td>
<td>REGISTRATION AND REFRESHMENTS</td>
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<tr>
<td>09:10</td>
<td>THE EFFECTIVE USE OF API 682 PLAN 53B BARRIER FLUID SYSTEMS FOR IMPROVED PUMP SEAL RELIABILITY IN CLIMATES WITH LARGE AMBIENT TEMPERATURE CHANGES</td>
<td>Richard Jonathan Smith, AESSEAL plc, UK</td>
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<td>09:35</td>
<td>NUMERICAL MODELLING OF LIQUID SCREW PUMPS USING COMPUTATIONAL FLUID DYNAMICS</td>
<td>Prof. Ahmed Kovacevic, City University London, UK</td>
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<td>10:00</td>
<td>ANALYSIS OF AERODYNAMIC PERFORMANCE OF AN HP AXIAL TURBINE</td>
<td>Dr. Adel Ghenaiet, University of Sciences and Technology, Algeria</td>
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<td>11:00</td>
<td>EXPERIMENTAL AND NUMERICAL ESTIMATION OF INSTABILITY CRITICAL VELOCITIES OF PIPES CONVEYING FLUID</td>
<td>Dr. Hayder Yousif Ahmad, Safran Labinal Power Systems, UK</td>
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<td>11:35</td>
<td>AERO-ACOUSTIC ANALYSIS OF A LOW-PRESSURE CENTRIFUGAL COMPRESSOR STAGE</td>
<td>Nestor Gonzalez Diez, TNO, The Netherlands</td>
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<td>12:00</td>
<td>COMBINING CFD, FEA AND SCRIPTING FOR EFFICIENT OIL VANE PUMP INTEGRITY ASSESSMENT</td>
<td>Christopher Lynch, Code Product Solutions, The Netherlands</td>
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<td>REVERSE ROTATION OF COMPRESSORS AND PUMPS</td>
<td>Harald Carrick, Process Industry Machine Expertise Ltd, UK</td>
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<td>14:05</td>
<td>COMPACT INLINE GAS COMPRESSOR/BOOSTER</td>
<td>Dr. Alexander Fedotov, TPG Design &amp; Technology, UK</td>
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<td>14:30</td>
<td>NUMERICAL ANALYSIS OF THE INFLUENCE OF DESIGN TOLERANCE ON OIL JET SIZE FOR ROTOR SHAFTS IN AN AEROSPACE ELECTRIC GENERATOR</td>
<td>Dr. Hayder Yousif Ahmad, Safran Labinal Power Systems, UK</td>
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<tr>
<td>15:40</td>
<td>SYSTEM DYNAMIC SIMULATIONS TO PREVENT FAILURE IN CENTRIFUGAL COMPRESSORS DUE TO SURGE AND ROTATING STALL</td>
<td>Jan Smeulers, TNO, The Netherlands</td>
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<tr>
<td>16:05</td>
<td>ASSESSMENT OF AN ELECTRO-MECHANICAL DIFFERENTIAL SYSTEM PROVIDING VARIABLE SPEED TO INDUSTRIAL APPLICATIONS</td>
<td>Maximilian Hehenberger, SET GmbH, Austria</td>
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<tr>
<td>16:30</td>
<td>REGULATORY COMPLIANCE – A WORKING GUIDE FOR ENGINEERS AND FLUID MACHINERY MANUFACTURERS</td>
<td>Nick Andrew Ahens, James Fisher Defence, UK</td>
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<tr>
<td>16:45</td>
<td>CHAIR’S CLOSING REMARKS</td>
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<td>17:00</td>
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WHO SHOULD ATTEND THE 13TH FLUID MACHINERY CONGRESS?

ALL PROFESSIONALS WHO ARE INVOLVED IN THE DESIGN, OPERATION, MAINTENANCE AND MANAGEMENT OF FLUID MACHINERY WILL BENEFIT FROM THE 2016 CONGRESS.

In particular, all Heads, Directors, Managers and Engineers with the following specialisms are strongly recommended to join the Fluid Machinery Congress:

- Design and Development
- Research and Development
- Inspections
- Health and Safety
- Maintenance and Repair
- Modelling, Simulation and Testing
- Prototyping
- Analysis
- Risk

Over 94% of previous attendees would recommend a colleague or industry peer to attend Fluid Machinery Congress, book your pass today.

Attendee feedback from the 12th European Fluid Machinery Congress in Edinburgh

“”

The event provided a valuable insight into industrial experience and current research into the improvement & understanding of fluid machinery.

Lancaster University

“”

Excellent event, with good papers

Aramco Overseas

“”

Very well organised event with very interesting presentations given by excellent presenters

Torishima Europe Limited

“”

...first-hand experience on real problems & solutions that worked

Vert Rotors

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Registration fees include entry to the sessions, refreshments, and a copy of selected presentations.

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<tr>
<th>Delegate Type</th>
<th>Early Bird Rate</th>
<th>Standard Rate</th>
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<tr>
<td>Member, IMechE/ Supporting Organisation. Conference and Dinner</td>
<td>£649 + VAT</td>
<td>£719 + VAT</td>
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<tr>
<td>Member, IMechE/ Supporting Organisation. Conference only</td>
<td>£599 + VAT</td>
<td>£669 + VAT</td>
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<tr>
<td>Non-member, Conference and Dinner</td>
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<td>£829 + VAT</td>
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<tr>
<td>Non-member. Conference only</td>
<td>£699 + VAT</td>
<td>£779 + VAT</td>
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<tr>
<td>Student/Retired. Conference and Dinner</td>
<td>£349 + VAT</td>
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<tr>
<td>Presenting author. Conference and Dinner</td>
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Group discounts are available - contact us for more details.

THREE WAYS TO BOOK

1. Online: www.imeche.org/fluidmachinerycongress
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, 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. If 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

Hilton/Rijkaard Europe Hotel Scheveningen
Zwolsestraat 2, 2587 VJ Scheveningen,
The Netherlands

ACCOMMODATION


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