21st International Conference on
Water Jetting
Looking to the future, learning from the past

Ottawa, Canada
19th – 21st September 2012

Top reasons to attend:
✓ Discover the latest technological advances
✓ Talk and network with the world’s Water Jetting experts
✓ Gain an insight into future directions
✓ Benefit from the experience of others
✓ Understand the lessons learned

Save 10%
Early bird offer ends 19th August, 2012

Celebrating 40 years
BHR Group’s involvement with water jets began in 1972, with the first International Symposium on Jet Cutting Technology, held at the University of Warwick in Coventry. Forty years later we’ve reached our 21st International Conference on Water Jetting and having been all around the world we are making our second visit to Ottawa, Canada. This will be an event to remember.

Companies presenting include:

Swansea Metropolitan University, UK
Tohoku University, Japan
University of Bergamo, Italy
Nihin University, Japan
BHR Group, UK
Manipal University, India
Karadeniz Technical University, Turkey
ES3, USA
School of Energy Science and Engineering, China
Omax, USA
Tokyo University of Technology, Japan
Tokyo Engineering University, Japan
M.J.P. Rohilkhand University, India
Hefei General Machinery Research Institute, China
Tianjin Tongjie High Pressure Pump Manufacturing Co., Ltd, China
Department of Nanomechanics, Tohoku University, Japan
University of Washington, USA
Swiss Competence Center of Waterjet Technology, Switzerland
Koszalin University of Technology, Poland
Waseda University, Japan
Tohoku University, Japan
Jet-Net International Pty. Ltd, Australia
Karabuk University, Turkey
VLN, Canada
University of Tokyo, Japan
University of Ljubljana, Slovenia
OMAX Corporation, USA
Flow International Corporation, USA
Miller Innovations, UK

Introduction

Early bird rate
Applicable to all bookings received with payment on or before 19th August 2012.

Authors
Authors (maximum of 3) per paper are entitled to a 25% discount off the conference fee and will be emailed a promotional code.

Students
There are a limited number of places available for bona fide students at a discounted rate of 50% the full delegate fee, please contact the Conference administrator: Joyce Raymond confx3@bhrgroup.co.uk to register as a student.

Graduates
In keeping with its audience, BHR Group wishes to foster recent graduates (within the last 5 years), to encourage their development and interaction with experience technical managers. For full paying delegates, the organisers offer the option of a second place at a discounted rate of 50% off the full delegate fee who meets the above criteria, please contact Joyce Raymond confx3@bhrgroup.co.uk to register as a Graduate.

Ottawa Convention Centre

A bold, modern design, a bright naturally-lit interior, magnificent views...the all-new Ottawa Convention Centre offers unparalleled, environmentally-responsible setting and support for Ottawa conventions, conferences, meetings and exhibits – large and small. Its 100 ft. / 31 m. high sweeping window façade faces the Rideau Canal UNESCO World Heritage Site and Parliament Hill.

Ottawa is situated on the south bank of the Ottawa River, and contains the mouths of the Rideau River and Rideau Canal. The older part of the city (including what remains of Bytown) is known as Lower Town, and occupies an area between the canal and the rivers. Across the canal to the west lies Centertown and Downtown Ottawa, which is the city's financial and commercial hub. As of June 29, 2007, the Rideau Canal, which stretches 202 km (126 mi) to Kingston, Fort Henry and four Martello towers in the Kingston area was recognized as a UNESCO World Heritage Site. For further information please click here.

Accommodation

Novotel Ottawa

The Novotel Ottawa hotel is ideally located in downtown Ottawa in the heart of the Nation's Capital. One of the finer Ottawa hotels, it offers its clients a warm, cozy and intimate accommodation experience. Novotel Ottawa Hotel specializes in personalized, friendly services in a quiet stress free environment. The hotel is within close walking proximity to the Ottawa Convention Centre. BHR Group has reserved a large number of bedrooms at a special discounted rate, the Novotel will hold these rooms until August 19th 2012 after this date accommodation will be subject to availability and rate, early booking is advised. The special rate can also be used before and after the conference if you would like to extend your stay in Ottawa.

Superior King - Single $189.00  Superior King - Double $189.00

To book your accommodation online, please click here

Or to book by phone, please contact:
Claudia Urrutia
Novotel Ottawa, Phone: 613.230.3033,Fax: 613.760.4766,
eMail: groupreservations@novotelottawa.com Booking Code: 18691
Booking Name: VLN Advanced Technologies

Air France and KLM have kindly agreed to offer discounted flights to delegates where available. Flights will be discounted by as much as 40%:

Event: INTERNATIONAL CONFERENCE ON WATERJETTING
Event ID: 13961AF
Valid for travel from 13/09/2012 to 26/09/2012
Event location: Ottawa, Canada

Attractive discounts on a wide range of airfares on all Air France and KLM flights worldwide**.

Use the website of this event or visit http://www.airfranceklm-globalmeetings.com to
• access the preferential fares granted for this event*,
• make your booking,
• issue your electronic ticket*,
• select your seat**,
• and print your boarding card**.

If you buy your ticket via AIR FRANCE & KLM Global Meetings website, your electronic ticket will carry a special mention which justifies the application of the preferential fares.

Should you prefer to process your reservations and ticket-purchase directly with an Air France and KLM sales outlet, you must keep this current document which serves to justify the application of the preferential airfares

Keep the document to justify the special fares with you as you may be asked for it at any point of your journey.

To locate your nearest Air France and KLM sales point, visit: www.airfrance.com or www.klm.com.
You will need to quote the reference given above which is registered in AIR FRANCE KLM data into GDS Amadeus: GGAIRAFGLOBALMEETINGS. Frequent flyer / loyalty programs of Air France and KLM partner airlines are credited with "miles" when Air France or KLM flights are used.

* not available in certain countries
** subject to conditions

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Head Office: Amsterdamseweg 55, 1182 GP Amstelveen, the Netherlands
Registered No 33014286
Edited by AIR FRANCE & KLM Global Meetings: JH.CD

Guide to Conference Prices

$CDN prices are based on current exchange rate of: 1.6073

<table>
<thead>
<tr>
<th>Category</th>
<th>Early Bird Rate</th>
<th>After 17th September</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presenting author (early bird rate)</td>
<td>£ 303.75</td>
<td>$ 489.00</td>
</tr>
<tr>
<td>Presenting author (after 17th September)</td>
<td>£ 337.50</td>
<td>$ 543.00</td>
</tr>
<tr>
<td>Delegate (early bird rate)</td>
<td>£ 405.00</td>
<td>$ 651.00</td>
</tr>
<tr>
<td>Delegate (after 17th September)</td>
<td>£ 405.00</td>
<td>$ 723.00</td>
</tr>
<tr>
<td>Students</td>
<td>£ 225.00</td>
<td>$ 362.00</td>
</tr>
<tr>
<td>Rising Stars</td>
<td>£ 225.00</td>
<td>$ 362.00</td>
</tr>
<tr>
<td>Additional Conference dinner tickets for partners</td>
<td>£ 40.00</td>
<td>$ 65.00</td>
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</tbody>
</table>

Registration fee includes

Attendance to all technical sessions, the welcome reception, conference dinner, lunch and refreshments for the duration of the conference. Delegates will also receive printed conference proceedings and a CD.

Conference proceedings

The conference papers are professionally published as a soft bound volume and include a CD. The proceedings will be included in the registration fee and additional copies available for sale after the conference.

VLN assisted delegate scheme

BHR are delighted to announce that VLN will continue with the assisted delegate scheme. The scheme is available for young and rising engineers; VLN will cover your registration fees, plus will help towards travel and accommodation costs for the duration of the event. Please Contact Debbie Carrington dcarrington@bhrgroup.co.uk direct to apply for inclusion into the scheme.

How do I register?

Registration is now open – follow the web address at the bottom of the page to book on-line

Payment options:

- Use your credit card and Book on-line
- Cheques should be made payable to VirtualPiE Ltd
- Bank transfers should be paid to our account at:

  Barclays Bank
  Coventry Fletcham Highway Branch
  513 Fletchamstead Highway
  Coventry, UK, CV4 9EJ

  Account number: 33034771
  Bank sort code: 20-23-55
  IBAN: GB30 BARC 2023 5533 0347 71
  SWIFT BIC: BARCGB22

The following papers have been offered for the Conference (subject to peer review/evaluation)

<table>
<thead>
<tr>
<th>Title</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>The development of strategies for working with three-dimensional glass forms using two-dimensional waterjet cutting</td>
<td>Swansea Metropolitan University, UK</td>
</tr>
<tr>
<td>An Investigation on Artificial Neural Networks and Regression Methods for the Prediction of Titanium Alpha Case Removal using High-pressure Plain Waterjet</td>
<td>University of Nottingham, UK</td>
</tr>
<tr>
<td>Selection of key waterjet process parameters for high material removal rates and low surface roughness for plain waterjet machining of an aluminium alloy</td>
<td>University of Nottingham, UK</td>
</tr>
<tr>
<td>Effect of Nozzle Shape for High Injection Pressure on Aggressivity of Cavitating Jet</td>
<td>Tohoku University, Japan</td>
</tr>
<tr>
<td>Investigation on Surface quality of AWJ Kerf: Effect of the Combination erosive Power of the Jet and Material Properties</td>
<td>University of Bergamo, Italy</td>
</tr>
<tr>
<td>A study of high pressure water jet nozzles</td>
<td>University of Nottingham, UK</td>
</tr>
<tr>
<td>Abrasive suspension jet issuing from a fan jet nozzle</td>
<td>Nihin University, Japan</td>
</tr>
<tr>
<td>Efficient surface decontamination removal using rotating abrasive water jets</td>
<td>BHR Group, UK</td>
</tr>
<tr>
<td>Characterisation of abrasive water-jet process for drilling CFRP-titanium stacks</td>
<td>AMRC, University of Sheffield, UK</td>
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<tr>
<td>Experimental investigation of the effect of process parameters on machining of GFRP composites using Abrasive Water Suspension Jet submerged in water</td>
<td>Manipal University, India</td>
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<tr>
<td>Novel Firefighting and Rescue Technology for Areas with Explosive/Flammable Hazards or Restricted Access</td>
<td>BHR Group, UK</td>
</tr>
<tr>
<td>Statistical Evaluation of the Surface Roughness produced by Abrasive Waterjet (AWJ)</td>
<td>Karadeniz Technical University, Turkey</td>
</tr>
<tr>
<td>A Study on the Performance Prediction of Abrasive Waterjet in Granitic Rock Cutting</td>
<td>Karadeniz Technical University, Turkey</td>
</tr>
<tr>
<td>Commercialization Pilot Program (CPP) Project of Force Pulse Waterjet (FPWJ) Stripping for Removal of Organic and Inorganic Coatings</td>
<td>ES3, USA</td>
</tr>
<tr>
<td>Coal and gas outburst control using the waterjet technique in outburst prone soft coal seams in coal mine</td>
<td>School of energy science and engineering, China</td>
</tr>
<tr>
<td>Abrasive-Waterjet Technology for Biomedical Applications</td>
<td>Omax, USA</td>
</tr>
<tr>
<td>Bridges and Other Complex Structures – Comparing Waterjetting with Conventional Abrasive Blasting</td>
<td>Rob Roy, USA</td>
</tr>
<tr>
<td>Research on hazard range of high-pressure water jet</td>
<td>Tokyo University of Technology, Tokyo Engineering University, Japan</td>
</tr>
<tr>
<td>Experimental and Analytical Investigations for Abrasive Waterjet Hole Trepanning of Thick Kevlar-epoxy Composites used in Ballistic Applications</td>
<td>Department of Mechanical Engineering, M.J.P. Rohilkhand University, India</td>
</tr>
<tr>
<td>Power Law of Injection Pressure and Nozzle Diameter on Aggressive Intensity of a Cavitating Jet</td>
<td>Department of Nanomechanics, Tohoku University, Japan</td>
</tr>
</tbody>
</table>

AWJ Cutting and Edge Finishing on Surface Morphology of Fiber Metal Composite Laminates; University of Washington, USA

Real-time monitoring of abrasive water jet machine parameters, Institute of Thermal and Fluid Engineering; Swiss Competence Center of Waterjet Technology, Switzerland

The Research of Self-Excited Head for Generation of Pulsed Water-Jet Useful in Oil And Gas Mining; Koszalin University of Technology, Poland

High speed observation of unsteady behavior of bubble clouds split from cavitating jet; Waseda University, Japan

Development of self-rotating nozzle system with vane-pump type brake system; Tohoku University, Japan

Comparison Grain Disintegration Effect of Different Abrasive During The High Pressure Waterjet Formation; Jet-Net International Pty. Ltd, Australia

Stripping of Coatings and Prepping of Surfaces with Waterjets: Basic Considerations; VLN, Canada

Turning of (Cu-Cr-Zr) alloy with abrasive water jet; F Kartal, Kastamonu University; H Gokkaya, Karabük University; M Nalbant, Gazi University, Turkey

Feasibility Investigation of De-fouling Tunicates from Mussel Socks with Cavitating and Pulsed Waterjets; VLN, Canada

Development of a five-axis water jet finishing system for artificial joints; University of Tokyo, Japan

Ice Jet Machining – Two Prototypes Comparison; University of Ljubljana, Slovenia

Industrial Robots; Bob Rochelle

Precision Cutting of Three Dimensional Parts with Abrasive Waterjets; OMAX Corporation, USA

Low Cost AWJ Cutting Trends; Flow International Corporation, USA

CUTTING OF GLASS MIRROR CORES WITH AWJ; Flow International Corporation, USA

Non-Contact Micromachining Methods – Micro Abrasive Waterjets, Micro Lasers and Micro Wire Electric Discharge Machining; Miller Innovations, UK

Potential of Waterjet Peening for Mainstream Industrial Applications; Flow International Corporation, USA

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Provisional programme

Save 10% early bird offer ends 19th August, 2012

Thursday 20th September

The Conference dinner will be held in the main hall of the Canadian Museum of Civilisation. Look forward to a fun packed evening with music from the renowned musician Randy Demmon, multi-cultural dancing and a fabulous 4 course dinner. Entrance to the evening is included in the registration fee, extra tickets will be available for partners to attend.

Please click here for more information.

CONFERENCE DINNER

Sponsorship

Do you have a product or service to promote and would like to enhance your brand awareness? For details of how BHR Group can tailor a sponsor package to suit your needs, please contact the organisers. There will also be an exhibition alongside the Conference. Exhibition stands will be limited and prospective exhibitors are strongly advised to register their interest with the organisers at the earliest opportunity. For more information on the packages available please contact:

Debbie Carrington
Conference Organiser
BHR Group
Cranfield, Bedford
MK43 0AJ, UK
Tel: +44 (0)7785 621 652
Email: confx4@bhrgroup.co.uk

Exhibition

A tabletop exhibition will be held alongside the conference the cost is £1200 and includes the following items:

* One exhibition space with one table (5 x 2.5ft) and two chairs (all additional equipment must be provided by the exhibitor)

* Contact details of delegates attending the Conference

* 10 minute presentation slot to the Conference delegation

Organisations wishing to participate as an exhibitor are advised to contact Debbie Carrington or Willie Bloom at: confx4@bhrgroup.co.uk

About BHR Group

BHR Group is an independent Research and Technology organisation. Our services to industry are based around our core skills in Fluid Engineering and include consultancy, research and development, conferences, seminars and specialist training. For more information, please visit our website at www.bhrgroup.com

Enquiries

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And supported by: