International Conference on Joining Materials

In Association with the IIW

Date: May 5 - May 8, 2013
Venue: Konventum Lo Skolen, Helsingør, Denmark
Organiser: JOM, Osama Al-Erhayem
PROVISIONAL CONFERENCE PROGRAMME

Conference Theme

The JOM series of biennial International Conferences & ‘know how’ Exhibition in Welding Technology goes back five decades to the nineteen seventies. Since 1979, the JOM Conference has been at the forefront in promoting research and development in joining and material technology. More recently, training, qualification and certification of welding personnel have become increasingly important. The implementation of recent knowhow through Education and Training is now a key part of modern welding technology.

Participation and Registration

As we would welcome your participation at the JOM 17 International Event please fill in the attached Registration form and return it by e mail or post before February 27th 2013.

Please note that those wishing to present a paper at the conference must send the title and abstract immediately for review.

Exhibition

For those organisations wishing to have a display about their products, training courses with brochures, please indicate the size of space you will require. The poster display and distribution of your brochures are free of charge for the delegates of JOM-17 conference.

Publication of Conference Papers

Papers for presentation at the conference will be selected and approved by a Technical Committee on the basis of technical merit and relevance to the conference program. Each paper will be peer reviewed for technical accuracy by the Technical Panel of International Experts in order to ensure the quality of the Conference Proceedings. The JOM-17 Conference- Proceedings will be assigned an ISBN number for publication.

Paper Review Panel

Principal Reviewer: Bill Lucas

Conference Programme

Sunday, May 5th, 2013:
14.00 Arrivals of delegates and registration
20.00 Informal Gathering, Dinner and beverages

Monday, May 6th, 2013:
8.30 - 17.30 Technical Sessions

Tuesday, May 7th, 2013:
8.30 - 12.00 Technical Sessions
12.45 – 18.00 Social event. Accompanying persons invited.
19.30 - 01.00 Gourmet Dinner and Entertainment!

Wednesday, May 8th, 2013:
9.00 - 12.00 Technical Sessions
12.00 - 13.30 Lunch and Farewell

Accepted Papers

Session I  Recent Developments in Joining Technology

Analysis Of VP-GMAW For Thin Sheet Applications
Nabeel Arif, Advanced Institute of Science & Tech, Korea

An Investigation on Low-Power Laser Assisted Arc DMD
Vinod Kumar, TWI Ltd, Cambridge, UK

Variable Polarity Submerged Arc Welding- Influence of Waveform Parameters on Productivity and Mechanical Properties
Vinod Kumar, TWI Ltd, Cambridge, UK

Joining of Ceramic Tubular Membranes for Oxy Combustion to Metal
Wolff-Ragnar Kiebach, DTU Energy Conversion and Storage, Roskilde-Denmark

Mechanical Performance of Laser Welded and Resistance Spot Welded Overlap Joints from Magnesium AZ31B Sheets
Salvatore Giammarinaro, Politecnico di Milano, Italy

Operator Influence On The Estimation Of Arc Efficiency In Gas Tungsten Arc Welding
Fredrik Sikström, University West, Sweden
Investigation On Laser Beam Modulation Scanning For Welding Fillet Seams On Overlap Joints
*Alexander Müller, Scansonic MI GmbH, Berlin, Germany.*

Additive manufacture of titanium alloys using integrated robotic GTAW welding.*John Norrish, University of Wollongong, Australia*

Study of the Pulsed TIG Parameter Influence on Weld Bead Formation
*Volodymyr Ponomarov, mecanica.ufu.Brazil*

Laser Welding of Polymers and related Quality Evaluation Methods
*Steen Erik Nielsen FORCE Technology, Denmark*

Metal-ceramic joining by brazing: thermodynamics and kinetics aspects
*Fiqiri Hodaj Grenoble Institute of Technology 38402 Saint Martin, France*

Development of Friction Stir Processing tools for MIG Fillet Welds
*Altino Loureiro, Departamento de Engenharia Mecânica – FCTUC, Portugal*

An Investigation on Cause of Weld Cracks in Fuel Oil Pipe of a Gas Turbine
*Fathi.Alborz MAPNA Turbine Engineering & Manufacturing Co. (TUGA), Teheran,Iran*

Structural Strengthening of Rocket Nozzle Extension by Means of Laser Metal Deposition
*Michel Honoré FORCE Technology,Denmark*

**Session II  Advances in Materials, Metallurgy and Weldability**

Effects Of Heat Treatment On Microstructure And Mechanical Property Of 30Si2MnCrMoV Welded Joint
*Wang Qing /, School of Materials Science and Engineering, Harbin Institute of Technology, Harbin,China*

Experimental Study Of Microstructure And Mechanical Properties Of Gray Cast Iron Welded Joint
*A. K. Pathak, NIFFT Hatia, Ranchi, India*

Optimised Penetration Parameters For Fillet Welding
*Norrie McPherson,BAE Systems Surface Ships Limited Glasgow, Scotland, UK*

Evaluation the Fracture Toughness In The Heat Affected Zone Of Api 5l X80 Steel Welded Joints Using Automated Welding Process
*Siderley Fernandes Albuquerque, Depto. Eng. Mecânica/ CCT/UFCG , Brazil*
Development Of A Linear And Torsion Actuators Using Ni-Ti Alloy With Shape Memory Effect
Marinés Chiquinquirá Carvajal, São Paulo – Brazil

The Use of Porous Cu Interlayer in Lead-free Solder
Nashrah Hani Jamadon, University Malaya, 50603 Kuala Lumpur, Malaysia

Study On Trial Manufacture Of Functionally Graded Commutator Made From Copper And Resin
Kouichi Nakano, Kyushu Institute of Technology, Japan

Effect Of Welding Parameters On The Microstructure, Micro Hardness And Chemical Composition Of Weld Overlays Of The AWS E308-L T1 Applied By SAW And FCAW Processes
Raphael Henrique, Falcão de Melo, Laboratório de Soldagem – UFCG, Brazil

Optimization Of Welding Parameters For Buttering With Ni Alloy In Dissimilar Weld Joints
Raphael Henrique, Falcão de Melo, Laboratório de Soldagem – UFCG, Brazil

Evaluation Of Multiple Pass Weld Metal Microstructure Produced By Ultra Low Hydrogen Covered Electrodes
Cláudio Turani Vaz, Brazil

Influence of Temperature on Cold Lap in GMAW
Peigang Li, University West, Trollhättan, Sweden

Session III Weld Quality, Structural Properties and Environment

Numerical Simulation Of Gradient Heat Treatment Process Of Cylinder Welding Component Of 30Si2MnCrMoVE Steel
Sun Dongli, School of Materials Science and Engineering, Harbin Institute of Technology, China

Heat input and Temperatures in Welding
Lars-Erik Svensson, University West Trollhättan, Sweden

Fatigue Crack Growth Behaviour Of Shot Peened 5083 Aluminium Alloy Friction Stir Welds
M.N. Ilman, Department of Mechanical and Industrial Engineering, Gadjah Mada University, Yogyakarta, Indonesia
Evaluation Method Designed from Information Receiver Needs and Requirements – an Enabler for Process Improvement  
Öberg Anna, Volvo Construction Equipment, Arvika, Sweden

Effect of Heat Treatment Cycle on Residual Stresses in AISI 8630 steel "buttered" with Inconel 625  
Adriana Bispo do Nascimento, Engenheira de Materiais-UFCG, Brazil

Evaluation Of The Api 5l X-80 Welded Joints To Hydrogen Cold Cracking By Implant Test  
Lívia Neves Marques. Engenheira de Materiais – UFCG, Brazil

Microstructure and remnant creep-life of a repair weld  
Stan T. Mandziej, Advanced Materials Analysis, Enschede, The Netherlands

A detailed investigation of the influence of copper coatings on the fume formation rate from steel GMAW consumables.  
John Norrish, University of Wollongong, Australia

Higher Efficiency and Cost Savings Through Innovative MIG/MAG Welding Processes  
B. Ivanov, EWM HIGHTEC WELDING GmbH, Germany

Session IV Monitoring, Sensors, Control, Training

Virtual welding training – the future of welding,  
B. Ivanov, EWM HIGHTEC WELDING GmbH, Germany

Efficient Gap Filling In MAG Welding By Using Optical Sensors The Example Of A Fillet Weld On Lap Joint  
SF Goecke, M Ebert-Spiegel, University of Applied Sciences, Brandenburg, Germany

Determination Of The Arc Length By Measuring The Arc Voltage On A GMAW Process  
Gerd Huismann, Helmut Schmidt University, Hamburg-Germany

Arc Efficiency for Gas Tungsten Arc Welding-GTAW  
Hans Åström, University West, Trollhättan, Sweden

Adaptive control of weld process in wind turbine tower manufacturing  
Steen Ussing, FORCE Technology, Denmark
Session VMathematical, Modelling, Simulation

Analytical Models Of Welding: The Contribution of Phiroze Kapadia
John Michael Dowden, Department of Mathematical Sciences, University of Essex, UK

Cost Sensitivity Modelling In Thermal Spraying
Nils Stenbacka, Department of Engineering Science, University West, Sweden

Numerical Modelling Of Hybrid Arc/Laser Welding: A Coupled Approach To Weld Bead Formation And Residual Stresses
Olivier DESMAISON, Centre de Mise en Forme des Matériaux (CEMEF) - MINES ParisTech, France

Numerical Estimation of Solidification Cracking Susceptibility in Laser Welding of Type 316FR Stainless Steel
Eun-Joon Chun, Division of Materials and Manufacturing Science, Graduate School of Engineering, Osaka University, Japan.

Optimization Of Power Of Welding Source With Moment Method
VMelyukov Valery Vasilyevich, Vyatka State University, Russia

Parts assembly by folding technique combining both, static and dynamic loading
Vladimir A. Glouchenkov, Samara Aerospace University, Russia
How to reach the JOM 17 Conference Venue in Helsingør-Denmark

“Konventum LO-Skolen Konference Center” in Helsingør is the venue for the JOM 17 Conference and accommodation, May 5 through May 8 2013

1. Arriving Copenhagen by air, Airport- KASTRUP

From Kastrup the train travels directly to Helsingør, with no change of train. There is a cheap and frequent service which terminates at Helsingør.

The distance from the airport to Helsingør is approximately 70 km and travel time around 90 minutes. You need to purchase the train ticket at the airport using Danish Kroner (DK). Costs for single journey to Helsingør is approximately 85 DK [15 USD]. Money can be exchanged at the airport.

The Conference Venue (Konventum LO-Skolen Konference Center) is only a few km from Helsingør station. Either hail a taxi or take a bus to HELLEBO PARK which is next to the building (one block) of the LO-Skolen. Alternatively, walk to the venue.

Should you take a taxi directly from the airport, the cost will be around 855 DK [150 USD], around ten times the train fare.

2. Arriving Copenhagen by train- Copenhagen Main Railway Station

The trains between Copenhagen and Helsingør are frequent. After arrival at Helsingør station, please follow the options described above.

Your address during the JOM –Conference

Konventum LO-Skolen Konference Center.
Gammel Hellebækvej 70
DK-3000 Helsingør
Denmark

FREE ACCESS AT LO-SKOLEN TO INTERNET THROUGHOUT YOUR STAY.

WISHING YOU AND YOUR ACCOMPANYING PERSON A PLEASANT JOURNEY TO DENMARK AND TO HELSINGØR!
Participant Details
 Name/Address ________________________________________________________________

 Intend to exhibit for free! ….. Booth space needed: ---- sq. meter.
Please Notice: No charge for exhibition for the Conference delegates.

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<tr>
<th>Fees</th>
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<tr>
<td>Delegate registration fee, incl. Conference Proceedings, room, all meals</td>
<td>8,900 DKK</td>
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<tr>
<td>(Room, May 5 to May 8, 2013)</td>
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<tr>
<td>Accompanying person incl. social event and all meals</td>
<td>2,900 DKK</td>
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<td>Discount only for JOM Members</td>
<td>- 500 DKK</td>
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<td>Total</td>
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**Payment**

Please transfer the fees and accommodation costs to JOM-Institute before February 27th. See below for the JOM-Institute bank account details but please include your name in the bank transfer for identification.

**JOM-Institute bank information**

Danske Bank, Denmark. IBAN account: DK0830003172121683. Bic (SWIFT) DABADKKK.

**Your Accommodation and Exhibition:**

The Conference Venue is the scenic LO-Skolen Konventum in the Hamlet City Helsingør (Elsinore).

The Registration Form should be sent by e mail or posted to:

**JOM**

Osama Al-Erhayem
Gilleleje Strandvej 28. DK-3250 Gilleleje. DENMARK
Telephone: +45 48355458 . E-Mail: jom_aws@post10.tele.dk