

# NORDIC WELDING CONFERENCE 2014

5.–6.11.2014

Tampere Exhibition and Sports Centre – TESC

## CONFERENCE TOPICS

- High Strength Steels and Applications
- Laser Welding
- Robot Welding and Automation – Productivity
- Design of Welded Structures



WELDING IN THE FUTURE - What do we need and what do we have to do to be competitive in the Future?

*Prof. Gary B. Marquis, IIW President 2014-2017*



# THE NORDIC WELDING CONFERENCE BRINGS INTERNATIONAL WELDING EXPERTS TO TAMPERE



The Nordic Welding Conference has for long been recognised as a premier event for Nordic and international welding professionals. The first edition of the Conference, entitled "Nordiska Svetsmötet," was held in Stockholm, Sweden, and since 1948, the event has been organised by turns every two to three years in one of the Nordic countries: Sweden, Norway, Denmark, Finland and Iceland. The Conference highlights

topics of major relevance to the industry, addressed by a line-up of renowned international keynote speakers, while also providing an all-important forum for networking and the sharing of best practices. The Conference is an IIW associated event, hosted by The Welding Society of Finland (Suomen Hitsausteknillinen Yhdistys), a longstanding member of The International Institute of Welding (IIW).



Welcome to Nordic Welding Conference

Jouko Lassila  
Executive Director  
The Welding Society of Finland  
IIW Director

## WEDNESDAY 5.11.

### PLENARY SESSIONS

12.00 – 16.15

Formal Opening of the Conference  
*Jouko Lassila, Executive Director of The Welding Society of Finland*

Welding in the Future - What do we need and what do we have to do to be competitive in the Future?  
*Prof. Gary B. Marquis, IIW President 2014-2017*

Overview of industrial welding in Nordic countries:

- Denmark, *Steen Ussing*
- Norway, *Dag Syvertsen*
- Sweden, *Lars Johansson*
- Finland, *Ismo Meuronen*



COFFEE BREAK

Welding work in Poland - Relocation of production  
*Ilkka Nikkilä, Mesera Oy*

14.40 – 16.00

### For the Future!

Modern production automation for welding industry  
*Jari Tervolin, Pemamek Oy Ltd*

Process simulation and remote programming  
*Heikki Aalto, Delfoi, Finland*

Kemppi ARC System - KAS 3  
*Pertti Kaarre, Kemppi Oy*

Welding of the copper canister for nuclear waste by FSW - current development work and future implementation  
*Tero Purhonen, Posiva Oy*

Summary and overview of the next conference



GALA DINNER,  
RESTAURANT NÄSINNEULA  
20.00–23.00

## THURSDAY 6.11.

9.30 – 12.30

### HIGH STRENGTH STEELS AND APPLICATIONS

Chair: *Kari Mäntyjärvi, University of Oulu*

High strength steels – research and applications in Finland  
*Kari Mäntyjärvi, University of Oulu*

Ultra-high-strength hot-rolled steels  
*Jukka Kömi, Rautaruukki Corporation*

Material technology – Stainless steels  
*Hannu-Pekka Heikkinen, Outokumpu Tornio Works*



COFFEE BREAK

Usability of UHS steels using heat treatments  
*Antti Järvenpää, University of Oulu*

Next generation ultra-high-strength harvester cranes  
*Risto Heikkilä, Logmer Forest Oy*

High strength steel welding research results  
*Sami Heikkilä, University of Oulu*



LUNCH

13.30 – 16.30

### LASER WELDING

Chair: *Antti Salminen, Lappeenranta University of Technology*

Potential of laser welding in large component production  
*Antti Salminen, Lappeenranta University of Technology*

Design and manufacturing aspects when laser welding ultra-high-strength steel-intensive car bodies  
*Jonny K. Larsson, VOLVO Ab, Sweden*

Autogenous laser welding of butt joint - effect of the preparation  
*Mikko Vänskä, Lappeenranta University of Technology*



COFFEE BREAK

Case : Laser welding application  
*Erkki Virkki, Machine Technology Center Turku Ltd*

Formation and avoidance of undercuts in laser-arc hybrid welding  
*Alexander Kaplan, Luleå University of Technology*

Laser cladding with scanning optics  
*Joonas Pekkarinen, Lappeenranta University of Technology*

9.30 – 12.30

### ROBOT WELDING AND AUTOMATION – PRODUCTIVITY

Chair: *Jyrki Latokartano, Tampere University of Technology (The Robotic Society in Finland)*

Robot welding in Finland – from past to present  
*Jyrki Latokartano, The Robotic Society in Finland*

Multi-robot welding in small batch production  
*Tero Haapakoski, HT Laser Oy*

WeldControl solutions in automated welding  
*Matti Lahtinen, Pemamek Oy Ltd*



COFFEE BREAK

Aluminium laser welding in battery production  
*Jyri Kylä-Kaila, Valmet Automotive Oy, Finland*

Mobiweld - Mobile friction stir welding (FSW) system for aluminium structures  
*Tapio Heikkilä, VTT, Finland*



LUNCH

13.30 – 16.30

### DESIGN OF WELDED STRUCTURES

Chair: *Pedro Vilaça, Aalto University*

Friction stir welding – new possibilities for designers  
*Pedro Vilaça, Aalto University*

Design for laser welding  
*N.N. Trumppf, Germany*

Capacity of ultra-high-strength structural steels in welded applications  
*Ilkka Valkonen, SSAB*



COFFEE BREAK

Square root classification of welds:  
-Effective and illustrative sizing of welds  
*Heikki Holopainen, Foster Wheeler Energia Oy*

COCKTAIL RECEPTION,  
TAMPERE CITY HALL  
18.30 – 20.00

Please note that the programme may be subject to change.

## CONFERENCE INFORMATION

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**DATES:** 5.-6.11.2014

**VENUE:** Tampere Exhibition and Sports Centre  
–TESC, Ilmailunkatu 20, 33900 Tampere,  
Finland

### CONFERENCE

**FEES:** Registration for one day, 250 €  
(Incl. 0% VAT)  
Registration for two days, 480 €  
(Incl. 0% VAT)

**REGISTRATION:** For registration enter: [www.hitsaus.net](http://www.hitsaus.net)  
Registration is open until 31<sup>st</sup> October.

### ACCOMMODATION:

To make your booking, please contact the hotel directly and quote the allotment code **NWC 2014**. The special Conference rates will be valid until 10.10.2014. After this date, rooms will only be offered subject to availability and special rates can there fore not be guaranteed.

**HOTEL:** Solo Sokos Hotel Tornii Tampere  
Ratapihankatu 43, 33100 Tampere  
Tel. +358 20 1234 634,  
Fax. +358 10 7841 203,  
E-mail: [sales.tampere@sokoshotels.fi](mailto:sales.tampere@sokoshotels.fi)

**ROOM RATES:** Single room (Solo)  
145 € per night  
Double room (Solo Twin/Queen)  
165 € per night  
Prices include breakfast, sauna access and VAT.

**BOOKINGS:** Sokos Hotels Booking Centre  
Mon-Fri 08.00 – 20.00 (UTC+2)  
Tel. +358 20 1234 600,  
Fax +358 20 1234 647  
[sokos.hotels@sok.fi](mailto:sokos.hotels@sok.fi)

### HOW TO GET TO TAMPERE:

Tampere constitutes the northernmost point of the triangle formed by Finland's three major cities: Tampere, Helsinki and Turku. It is within easy reach, less than two hours by train or by car from both coastal cities, although it is even more conveniently accessible by air.

Connections from Tampere city centre to the Tampere Exhibition and Sports Centre are regular, reliable and very flexible.

### THE WELDING SOCIETY OF FINLAND:

The Welding Society of Finland provides information about welding and related technologies, manages IIW/ESF welding education and qualification in Finland and publishes Hitsaustekniikka magazine.

### FOR FURTHER INFORMATION:

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[www.nordicweldingexpo.fi](http://www.nordicweldingexpo.fi)



**IIW associated event**



**Suomen Hitsausteknillinen Yhdistys**  
**The Welding Society of Finland**