

South-East European Welding Congress

" Welding and Joining Technologies for a Sustainable Development and Environment "

June 3-5, 2015 Timişoara, Romania Regional Business Centre Timişoara

Joint events

- Workshop National Welding Capability
- Workshop Pipelines Construction

National R&D Institute for Welding and Material Testing - ISIM Timisoara,

- Meeting of the IIW Sub-commission XI-E Transmission Pipelines
- International Conference Structural Integrity of Welded Structures
- The International Fair 2015 Innovation in Welding & NDT











Welding Institute Zavod za Zavarivanje A.D., Serbia



Organising Committees

HOST

The National R&D Institute for Welding and Material Testing - ISIM Timişoara Mihai Viteazul Bv. 30, 300222 Timişoara, ROMANIA E-mail: isim@isim.ro Tel.: +40 256 491831 Web: www.isim.ro

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Registration information

Registration Fees (EUR)	Early Bird by May 03, 2015	Regular May 04, 2015 and later
Regular	300	350
Participants from organizing countries (Romania, Serbia, Bulgaria)	150	200
PhD. Students, accompanying person	100	150

The registration of any accompanying person should be done as well.

The price for tours will be additional to the congress's fee.

Registration fees cover welcome party, attendance at the technical sessions, conference folder, coffee breaks, dinner and proceedings of the conference.

Payment Methods

- a) for payment in EURO (participants from abroad) Bank: BCR Timişoara, Romania Account number: R058RNCB0249049272150003 Swift code: RNCBROBU
- b) for payment in LEI (Romanian participants)^{(*}
 Bank: BCR Timişoara, Romania
 Account number: RO15RNCB0249049272150001

*) Note The fee for Romanian participants should be paid in LEI at the BNR exchange rate for the day of the payment.

Cancellations and refund policy

All cancellations must be made in writing to the Congress Secretariat, by e-mail: seeiiw2015info@isim.ro. An administration fee of 30 EUR will be applied to any cancellation made by May 16, 2015. No refunds will be made for the cancellations after May 16, 2015.

Time

Time zone in Romania: GMT + 2 hrs

Currency

The official currency in Romania is LEU

Language

The official language of the 3rd IIW South-East European Welding Congress is English

Coffee breaks and Dinner

Coffee will be served during breaks at Regional Business Centre Timisoara (CRAFT). The dinner will be served at the Restaurant of the Regional Business Center Timisoara, on Thursday, June 04, 2015, 18:30 hour.

Badges and Tickets

Upon registration, participants will receive a badge of a specific colour, which must be worn of all times. Badges are required for all events.

Ticket for Dinner will be distributed together with registration kit at the Registration desk and must be presented at the entrance.

Meals during the IIW Congress

Restaurants, pizzerias or fast foods around CRAFT offer excellent food, good services and pleasant atmosphere.

A list of restaurants will be included in the registration material.

Venue & Accomodation



Venue

Opening Ceremony

The opening ceremony will take place at the Opera House (2 Mărăşeşti Str.).

Congress

The Congress will take place at the Regional Business Centre of Timisoara (22 Eroilor de la Tisa Bv).

Accomodation

Hotel Timişoara

Hotel Timişoara is the biggest hotel in town. The guests benefit from its priviledged location, in the very heart of the city.At Belvedere, the visual performance of the street completes the gastronomic presentation of the dishes. The rich multicultural heritage of the city is concentrated into a five star fusion menu. Meridional dominant notes are combined with a contemporary twist. The concept of "urban gastronomy" is influenced by Serbian, Bulgarian, Italian and even Turkish flavours.

www.hoteltimisoara.ro; office@hoteltimisoara.ro

North Star Continental Hotel

The North Star Continental Resort complex enjoys the vicinity of a relaxing park and is situated a few minutes away from the most important tourist attractions in the central area of the city. Combining high standard services with a constant attention to details, we offer you luxurious comfort, delicious cuisine, modern business and conference facilities and the much needed relaxation (3 restaurants with romanian and international cuisine, Miami Terrace with outdoor swimming pool, Lobby Bar, beauty salon and body-care -Continental Beauty, Galaxy Night Club, the Bodybuilding Center and Fitness, Car Rental, and Casino.

www.hotelcontinental.ro; rezervari@hotelcontinental.ro

Perla Hotels Timisoara

Perla Hotels is the ideal place when looking for accommodation in Timisoara, either for business or leisure, for you or your partners or family. The hotels offer different types of rooms, standard or business, to satisfy all your needs. Perla Hotels has 3 buildings all in one place, just a few minutes away from the city center having 4* and 3* rating. www.hotelperla.ro; office@hotelperla.ro

Boavista Hotel

The hotel is located near the Regional Bussines Centre Timisoara. Standard room features include air coditioning, Internet access, cable TV, phone, mini-bar. Along with a restaurant, the hotel has an indoor pool and a health club. Free buffet breakfast is provided, as well as free WiFi in public areas, free airport drop-off, and train station pick-up. Additionally, a bar/lounge, a coffee shop/café, and indoor tennis courts are onsite. www.hotelboavista.ro; rezervari@hotelboavista.ro













Programme

WEDNESDAY, JUNE 03, OPERA HOUSE

18:00-19:00 Opening ceremony (Session 1)

Welcome Addresses

Representative of IIW, organisers, local administration and national representatives. The Jaeger Lecture - Structural integrity. A probabilistic perspective. D. Cioclov Romania

19:00-20:00 Entertaiment

20:00-22:00 Welcome Reception

TECHNICAL PROGRAMME

THURSDAY, JUNE 04, Regional Business Centre Timişoara

08:30-13:00 Plenary Session (Session 2), Europa Room

C. Smallbone

The IIW White Paper- Its significance to creating a National Welding Capability" Australia

S. Keller

Technical and logistical challenges while carrying out welding repairs on a steam turbine and turbogenerator rotor line

Switzerland

E. Assunção, L. Quintino, Sundqvist J., Kaplan A.F.H., Tailoring Laser Welding for Complex Applications Portugal *V. Micloși* Estimation and expectation in assessment of the role of hydrogen on welds cracking Romania

Coffee Break

*H. Daşcău, D. Zivojinović, A. Grbović, A. Sedmak*Fatigue life prediction for Al alloy friction stir welded joint
Romania *V. Grabulov*Fracture mechanics and structural integrity in South-East Europe – 47 years of development
Serbia *A. Zhelev, T. Osikovski*Automated complete system for factory-and-production control of requirements in welding
Bulgaria *M. Uran, U. Kejžar*High energy arc aided deposition of non-metallic materials
Slovenia

14:30-16:10 Parallel Sessions

Structural Integrity (Session 3 - Special Session dedicated to the memory of Professor Stojan Sedmak) – Europa Room

A. Sedmak, B. Petrovski, N. Gubeljak, J. Legat, I. Samardžić, D. Kozak, S. Kuzmanović, T. Adžiev, G. Adžiev, V. Ćulafić, D. Bajić, D. Read Weldment fracture mechanics Serbia S. Kirin, A. Tawengi, A. Sedmak, V. Grabulov Application of design of experiment to welded joint testing Serbia A. Sedmak, R. Bakić, R. Jovičić, S. Sedmak, M. Milošević Ferrite-austenite welded joint elastic-plastic behaviour Serbia



M. Jovanović, M. Uran, D. Zuljan, D. Jovanović

Assessing the size of lack-of-fusion imperfections in MIG/MAG welds using computed tomography Slovenia

I. Čamagić, Z. Burzić, A. Sedmak Temperature effect on a low-alloyed steel welded joints tensile properties Serbia

Joining Processes (Session 4) – Bega Room

T. Iamboliev Tempering of continuous and pulse current GTA welds of AISI 420 (1.4021) martensitic stainless steel Bulgaria *A. AL-Obaidi, C. Majewski* Ultrasonic Welding of Dissimilar Materials. UK *M. Slováček, J. Tejc , M. Vaněk, T. Richter, J. Moravec, T. Kik* Using of welding virtual numerical simulation as the technical support for industry Czech Republic *M. Dudziak, M. Müller, H. Cramer* Sensor assisted adaptive GMA welding Germany *P. Petrov, D. Kaicheva, G. Bokuchava, I. Papushkin* A neutron diffraction study of residual stress due to electron beam welding Bulgaria

Quality Management (Session 5) – Dunarea Room

Dorin Dehelean New teaching methods for the qualification of welding coordinators Romania *G. Sofronić, D. Kuzmanović, D. Gruber, V. Zorić* Certification and qualification of NDT personel, welders and welding instructors in Serbia Serbia *R. D. Pittala* Quality Management during in-situ reconstruction of failed sickle plates by welding at undergroup

Quality Management during in-situ reconstruction of failed sickle plates by welding at underground Penstock of Srisailam Left Bank Hydro Electric Project – A case study India

T. Osikovski, G. Saev, D. Dimov

On the BWS approval process organization regarding welding specialist's qualification documents issued in countries non-members of EU and IIW/EWF Bulgaria

T. Uevama, T. Era, S. Okamotor, A. Černi

Challenge to quality and productivity improvement of GMA process for sheet metal joining Japan

Coffee Break

16:40-18:20 Parallel Sessions

Structural Integrity (Session 6 - Special Session dedicated to the memory of Professor Stojan Sedmak) – Europa Room

Z. Burzić, I. Čamagić, A. Sedmak

Fatigue strength of a low-alloyed steel welded joints Serbia *A. Živković, A. Đurđević, A. Sedmak, H. Dascau, I. Radisavljević, Đ. Đurđević* Possibilities for producing Al alloy T-joints using friction stir welding Serbia

D. Veljić, B. Medjo, M. Rakin, A. Sedmak, N. Radović, N. Bajić

Metallography and hardness profile of the cross section of the friction stir welded joints in Serbia Serbia

M. Arsić, V. Grabulov, S. Bošnjak, N. Milovanović, Z. Savić

Technology of repair welding in zones where cracks were detected at generator rotor hubs of hydroelectric generating sets at hydro power plant "Djerdap 1" Serbia



Programme

S. Balos, L. Sidjanin, M. Dramicanin, D. Labus, A. Antic Influence of tool shoulder geometry on mechanical properties and roughness of FSW joints Serbia

Z. Odanović

An analyse of hydropower turbine cover material degradation Serbia

Joining Processes (Session 7) – Bega Room

A. Savas CFD modeling of FSW process and predicting the hardness around welding tool Turkey G. Posch, W. Scherleitner , D. Matei The evolution of CMT: From joining and cladding to Metal Additive Manufacturing and Pinning Austria U. Lukić, R. Prokić Cvetković, O. Popović, R. Jovičić, M. Burzić The possibility of application of continuous cooling transformation phase diagram obtained by numerical simulation for determination of welding parameters Serbia J. Ernesto Indacochea Metallurgical aspects in welding high strength low alloy (HSLA) steel USA D. Mitić, D. Gruber, R. Matejić Centrifugal pumps housings reparation for working with phosphoric acid (CWN80-26, CNSF200-26, CNSF150-26 and NPW200-40) Serbia A. Dimic, G.M. Bakic, M.B. Djukic, V. Sijacki Zeravcic, M. Ristivojevic Characterization of welded joint made of T24 steel (7CrMoVTiB10-10) with and without post-weld heat treatment Serbia

18:30 Dinner - Restaurant of Regional Business Centre Timişoara

FRIDAY, JUNE 05, Regional Business Centre Timişoara

08:30-10:30 Parallel Sessions

Structural Integrity (Session 8) – Europa Room

G. Stix, B. Buchmayr Simulation based optimization of tube K-joints for tower cranes Austria N. Bakir, A. Gumenyuk, M. Rethmeier Numerical simulation of solidification crack formation during laser beam welding of austenitic stainless steels under external load. Germany C. A.C. Castro, D. de Carvalho Urashima, E. Pereira da Silva Study of vibration in the GMAW process to verify the weldability, microstructure, mechanical and geometric properties Brazil I. Hajro , E. Buljubašić Review of experiences in structural integrity assessment of welded steel tanks for oil storage Bosnia and Herzegovina S. Sakhawat, M. N. Baig, A.Falahati, H.P. Degischer, M. Dománková, A. Mahmood Investigations of precipitation in two different types of precipitation hardening stainless steels Pakistan G. Bărbos Creep study on ultra - high performance concrete (UHPC) bended beams Romania

Joining Processes (Session 9) – Bega Room

J. De Backer, X. Wei, J. Martin Robotic FSW for three-dimensional components UK



O. Popović, R. Prokić Cvetković, U. Lukić, R. Jovičić, M. Burzić Fume emission during self-shielded arc welding Serbia M. Vaněk, M. Slováček, J. Tejc, J. Moravec, T. Kik Numerical simulation of welding processes and their validation Czech Republic S. Balos, L. Sidjanin, M. Dramicanin, D. Labus SMAW Welding Aided by TiO, Nano Particles Serbia F. Oliveira, C. Castro, M. Costa, W. Pereira Study of macro and microstructural changes of the weld by steel FCAW process SAE 4340 Brazil M. Ristic, L. Radovanovic, M. Prokolab, I. Vasovic, B. Katavic Increase energy efficiency of thermal power plant Kostolac B by reducing wear of parts in ventilation mills Serbia

Coffee Break

10:50-12:30 Parallel Sessions

Structural Integrity (Session 10) – Europa Room

St. Hristov

Criteria for application the local explosive treatment for diminution of the residual welding stresses Bulgaria *S. Crâsteți*

Information systems and modules for intelligent materials testing Romania *Z. Karastojković, R. Perić, M. Srećković, Z. Janjušević, A. Sedmak, M. Rakin, N. Bajić* Microhardness changes in laser welds at annealed and cold rolled strips from golden alloy 585 Serbia *P. Tashev, H. Kondov, E. Tasheva, A. Tasev* Durability of nano-modified layers produced by manual arc overlay welding Bulgaria *G. Antonov, J. Argirov* Study fatigue in materials of drill pipes Bulgaria *I.E. Volokitina, A.B. Nayzabekov, S.N. Lezhnev, G.G. Kurapov, M.J. Knapinski*

Influence of initial structural state of 35HM steel on the obtaining ultrafinegrained structure during ECA-pressing Kazakhstan

Joining Processes (Session 11) – Bega Room

A. Maslarevic, G. Bakic, V. Sijacki Zeravcic, B. Rajicic, U. Lukic
Plasma transferred arc hardfacing with 316L
Serbia
C. Bosque, V. Serban
Influence of CO₂ in argon on MAG welding efficiency and productivity
Spain
J. Dobránszky, T. Sándor
Increasing the productivity of tungsten inert gas welding
Hungary
M. Mrdak, N. Bajić, M. Rakin, D. Veljić, V. Grabulov
Analysis of the structure of weld metal made with a basic type coated electrode
Serbia
H. Lakhnati
Innovative welding in plant engineering, vessel and pipe construction – manual and mechanised Germany



International Fair 2015 - Innovation in Welding and NDT

June 3-5, 2015 / Regional Business Centre of Timisoara (CRAFT), Grand floor Access: June 3, 2015 10:00-17:00. June 4-5, 2015 10:00-18:00.

Workshop - National Welding Capability

June 3, 2015 / CENTA Room^{*}) 10:00-14:30 *) ISIM Timisoara, 30 Mihai Viteazul Bv., headquarter

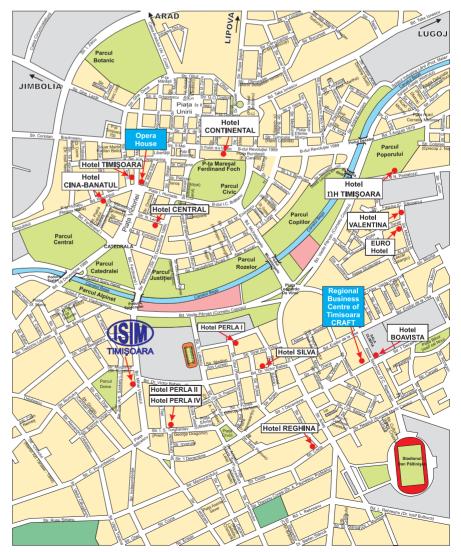
Workshop - Pipeline Construction & Meeting of the IIW Sub-commission XI-E Transmission Pipelines

June 5, 2015 / CRAFT - Dunarea Room 8:30-16:30

International Conference - Structural Integrity of Welded Structures - ISCS15

June 5, 2015

14:00-18.30 Plenary Session, CRAFT - Europa Room 10:30-14.00 Poster Session, CRAFT - Coffee Break area



The 3rd IIW South-East European Welding Congress



WINE TASTING EVENING-MINIS CELLARS

June 5, 2015 – includes travel fee, wine tasting, dinner

The Minis vineyard has been known for its famous red wines throughout history. Famous families owned lands on this historical vineyard. For example: the Grassalkovich, Hatvany, Bánffy, Rákóczy, Bohus, Báthory, Haraszthy families. On the foothills of Arad the former famous historical wine-growing region known as Minis, sank into oblivion in the XX century's whirl. The legendary red aszú, the spicy Cadarca, the velvety red wines and the mild Feteasca Regala-s were once known all across Europe. The Merlot, Pinot Noir, Cabernet Sauvignon, Burgund and the Cadarca are the firm's excellent and top wines.



TOUR OF CASTLES

June 5-6, 2015 (Alba Iulia, Hunedoara, Deva) – includes travel fee, 1 night accommodation, 2 lunches, the entry fees at castles, touristic guide within the castles

The Alba Iulia Citadel, designed by Italian architect Giovanni Morando Visconti, was built between 1716 and 1735, using the Vauban military architectural system - the largest of this kind in Southeastern Europe. The fortress is outstanding both for its architectural elements and for the beauty of its six gates, unique in European military structures. Doubtless artists, sculptors such as Johann Koning, Johan Vischer and Giuseppe Tencalla, had been inspired by ancient mythology. The entire history of the current Alba Carolina Citadel is visible to this day, as



the visitors walk through the concentric ruins.

The Corvin Castle, also known as Hunyad Castle, is one of the most impressive medieval constructions in Romania. Many say that it is even

more amazing than the famous Bran Castle. Iancu of Hunedoara was a leading Hungarian military and political figure in Central and Southeastern Europe during the 15th century. He started the construction of this magnificent castle.



Deva Fortress. The first evidence of the medieval Deva Fortress dates back to the second half of the 13th century; in 1269, Stephen V, King of

Hungary and Duke of Transylvania, mentioned "the royal castle of Deva" in a privilege-grant for the Count Chyl of Kelling. From the foot of the hill, the city of Deva spreads out, beginning with Magna Curia and the public park. Nearby is the lower funicular station, which tourists use to reach the fortress.

TOUR OF NATURAL LANDSCAPES

June 5-6, 2015 (Oravita - Anina Mocanita, Bigar Waterfall, The Danube Gorges) – includes travel fee, 1 night accommodation, 1 lunch, 1 dinner

The Oravita-Anina railroad section is the fifth railway built on Romanian territory, respectively the first mountain railway and, many would agree, perhaps the most beautiful. Built during the Austrian Empire, it is a unique cultural monument in Romania, as well as a great technical achievement. **Bigar Waterfall**, located in the nature reserve in Anina Mountains, the amazing waterfall is indeed a unique one. The water falls from a cliff, which is covered with moss. It is said



to be the most beautiful waterfall in the country. The underground spring streams



from the cave above and then falls into the Minis River.

The Danube Defileu is along 7km long between Dubova and Ogradena, and consists of Cazanele Large, with a length of 3.8 km, and 170, 300 m wide, and Cazanele Little, with a length of 3.6 km, and 150-350 m wide. At the entrance to the golf Mraconia it is visible the statue of Decebal, and close to it Scritul Mraconia. On the serbian side the Tabula Traiana can be found.



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