The 4th IIW South-East European Welding Congress

PROGRAM

draft version

Topic: Safe Welded Construction by High Quality Welding

Belgrade, Serbia, October 10 – 13, 2018

Organizers:

Serbian Welding Society – DUZS, Serbia

In cooperation with:

Bulgarian Welding Society – BWS, Bulgaria

Romanian Welding Society – ASR, Romania

National R&D Institute for Welding and Material Testing

Endorsement:

Ministry of Education, Science and Technological Development

seeiiw2018.duzs.org.rs
INVITATION

Dear Colleagues,

On behalf of the Organizing Committee, I am honoured to invite you to participate in the 4th IIW South – East European Welding Congress.

We are pleased to continue our long-lasting cooperation at the regional level. Besides the three associations that take part in the organization of such a Congress for the fourth time, namely the Serbian Welding Society, Bulgarian Welding Society and the Romanian Welding Society, we are also supported by other countries and institutions from the region.

We expect participation of the most important experts, not only from the region but from the European and international scene as well. Within the Congress and the Workshops, specialists from the industry, academic and research fields will have the opportunity to exchange information on current regional and global topics. During the Congress, as a great opportunity for sponsors, an International Fair of Welding and allied processes will be organized.

All this indicates that the 4th IIW South – East European Welding Congress will be the largest event in the field of welding to be held on the South – East Region of Europe in 2018 which goes beyond the importance of the region itself.

We would be very grateful if you would forward this invitation to anyone among your appreciate colleagues interested in the subject.

Dr Vencislav Grabulov, dipl.eng.IWE
Congress Chairman

ORGANIZING COMMITTEE

Dipl. Ing. Milica ANTIĆ - Serbian Welding Society
Dr Eng. Marin BELOEV - President of Bulgarian Welding Society
Eng. Todor CHALBUROV - Co-President Bulgarian Welding Society
Prof. dr Ing. Dorin DEHELEAN - Romanian Welding Society
Dr Ing. Anamaria FEIER - Romanian Welding Society
Dr Ing. Vencislav GRABULOV - Serbian Welding Society
Dipl. Ing. Branislav LUKIĆ - president of Serbian Welding Society
Eng. Pavel POPGEORGIJEV - CEO of Bulgarian Welding Society

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Dr Ing. Horia DASCAU - ISIM; Timisoara, Romania
Prof. dr Dorin DEHELEAN - Romanian Welding Society, Romania
Prof. dr Janos DOBRANSKY - Technical University Budapest, Hungary
CONGRESS THEME

The 4th IIW South – East European Welding Congress has the theme “Safe Welded Construction by High Quality Welding” and it is an opportunity for scientists, engineers, technicians, welders, suppliers and customers to meet and share their experiences, ideas, information and acquire new knowledge.

The Congress will be held in conjunction with the Conference WELDING 2018 (ZAVARIVANJE) which is traditionally held once in two years in Serbia.

Main topics:

- High Quality Welding (all regard welding technology, metallurgy and Joining Processes)
- Structural Integrity and Life of Welded Joints/Structures
- Welding of pipelines
- Education, Qualification, Certification of Personal

OFFICIAL LANGUAGES

The official language of the 4th IIW South – East European Welding Congress is English. The papers must be prepared in accordance with the IIW document.

Conference WELDING 2018 official languages: Serbian and English
**SCHEDULE**

**Wednesday, October 10th**

12:00-15:30 Walking tour
13:30-17:30 Workshop (only for invited participants)
18:00-18:20 Welcome speeches
18:30-19:15 Sponsors presentation
19:15-20:30 Welcome Cocktail

**Thursday, October 11th**

08:30-09:30 Registration
09:30-10:30 Opening Ceremony
10:30-11:00 Jaeger Lecture
11:00-11:50 Sponsors presentation
11:50-12:10 Coffee break
12:10-14:10 Keynote Speeches

**Friday, October 12th**

09:30-10:40 Keynote Speeches
10:40-11:00  Coffee break  
11:00-12:40  Paper presentations:  
**Topic 1**: High Quality Welding  
**Topic 3**: Welding of pipelines  
12:40-13:00  Coffee break  
13:00-15:00  Paper presentations:  
**Topic 2**: Structural Integrity and Life of Welded Joints/Structures  
**Topic 4**: Education, Qualification, Certification of Personal  
15:00-16:00  Lunch  
16:00-17:30  Paper presentations:  
**ZAVARIVANJE 2018**  
17:30  Closing ceremony  

Saturday October 13th  
09:00-18:00  Wine Tour, Serbian Monastery, Lunch  

PAPER PRESENTATIONS  

Thursday October 11th  
16:30-18:00  **Topic 1**: High Quality Welding  

**OXY-FUEL CUTTING - AUTOMATION MAKES THE DIFFERENCE**  
Kurt Nachbargauer, Germany  

**PROPERTIES MISMATCHING AND DISTRIBUTION ON STRUCTURAL STEELS WELDED JOINTS**  
Ismar Hajro, Petar Tasic, Bosnia & Herzegovina  

**MICROSTRUCTURAL ANALYSIS OF INCONEL 625 NICKEL ALLOY /AISI 2205 DUPLEX STAINLESS STEEL**  
Tuba Karahan, Tolga Mert, Mustafa Tümer, Turkey  

**LASER WELDING PARAMETERS EFFECTS ON THE WELD METALS PROPERTIES AT DUPLEX STAINLESS STEELS**  
Enikő Réka Fábián, Hungary  

**INFLUENCE OF WELDING PARAMETERS ON WELDED JOINT GEOMETRY AT CAPACITY DISCHARGE**  
Edin Džiho, Sead Pašić, Bosnia & Herzegovina  

**PERCUSSION WELDING OF Austenitic STEEL WIRES**  
Frank Schreiber, Germany  

**HARDFACING MATERIAL SOLUTIONS FOR HIGH PERFORMANCE COATINGS IN WEAR AND CORROSION APPLICATIONS**  
Nicolae Joni, Alex Joni, Romania  

**SPECIALIZED POSITIONERS AND MANIPULATORS FOR ROBOTIC ARC WELDING ALLOW BETTER-QUALITY, SAFER WELDS**  
M. Pavlović, Lj. Radović, I. Radisavljević, N. Radović, Serbia  

**THE EFFECT OF FRICTION STIR WELDING SPEED ON MICROSTRUCTURE, MECHANICAL PROPERTIES AND IGC OF EN AW-5083 PLATES**  
R. Molnar, A. Feier
REVIEW ON WELDING OF DISSIMILAR JOINT P91/TP310 ON BOILER COMPONENTS
Ivan Samardžić, Tihomir Marsenić, Božo Despotović, Dejan Marić, Croatia

WELDING TECHNOLOGY FOR AREAS OF THE GENERATOR ROTOR HUB WHERE CRACKS WERE DETECTED AT HYDRO POWER PLANT ‘DJERDAP 1’
Miodrag Arsić, Srđan Bošnjak, Vencislav Grabulov, Brane Vistica, Zoran Savić, Serbia

LEAD APPLICATION ON CARBON CONSTRUCTION STEEL – LEAD COATING (HOMOGENEOUS)
Mića Đorđević, Dragan Đorđević, Vladimir Đorđević, Serbia

THE INFLUENCE OF THE TRANSVERSE INCLINATION OF THE MAG WELDING TORCH ON THE GEOMETRY OF THE ROOT SEAM
Dragoslav Dobraš, Bosnia & Herzegovina

WELDING OF THICK-WALLED STEELS IN A NARROW GROOVE
Radomir Jovičić, Nebojša Pantelić, Danijel Pavlović, Simon Sedmak, Živko Štrbački, Jernej Markež, Katarina Jovičić Bubalo, Serbia

INFLUENCE OF GROOVE EDGE TEMPERATURE AND HEAT INPUT ON THE STRUCTURE AND HARDNESS OF THE HEAT AFFECTED ZONE OF A P460NL1 STEEL WELDED JOINT
Radomir Jovičić, Ljubica Radović, Nada Ilić, Zijah Burzić, Svetlana Štrbački, Milica Antić, Serbia

Friday October 12th
HOTEL Metropol

11:00-12:40  Topic 1: High Quality Welding  Lavander

IMPACT PARAMETERS ON WELD QUALITY AT MODERN RESISTANCE WELDING
M. Uran, D. Zuljan, Slovenia

MICROSTRUCTURAL AND TOUGHNESS ANALYSIS OF MICROALLOYED STEEL WELD METAL AT DIFFERENT HEAT INPUTS
Radica Prokić Cvetković, Olivera Popović, Zijah Burzić, Radomir Jovičić, Ivana Cvetković, Serbia

LASER WOBBLING WELDING OF DISSIMILAR NICKEL SUPER-ALLOYS FOR AEROSPACE APPLICATIONS
Rinaldo Rigon, F. Casadei, L. Lusvarghi, P. Veronesi, G. Bolelli, Italy

EXPERIMENTAL INVESTIGATIONS ON BUILT-UP BEAMS MADE OF THIN-WALLED COLD-FORMED STEEL USING RESISTANCE SPOT WELDING OR MIG BRAZING
Viorel Ungureanu, Romania

FRACTURE TOUGHNESS OF BASE AND WELD METAL OF ALUMINUM ALLOY EN AW 7049A T652 FSW JOINT
Milenko Perović, Tomaž Vuherer, Darko Bajić, Katarina Gerić, Sebastian Baloš, Marko Rakin, Serbia

EFFECT OF FSW WELDING SPEED ON MECHANICAL PROPERTIES OF AA2024 T351 ALUMINUM ALLOY
Dragan Miščić, T. Vuherer, I. Radisavljević, M. Miščić, J. Radovanović, N. Zdravković, Serbia

DETERMINATION OF WELDING PARAMETERS IN HARD SURFACING PROCESS FROM PRE-WELDED AND 3D SCANNED SUBSTRATE
Goran Salopek, Marko Dunder, Ivan Samardžić, Croatia

11:00-12:40  Topic 3: Welding of pipelines  Aristotle

PIPELINE GIRTH WELD STRENGTH MATCHING REQUIREMENTS IN INDUSTRY CODES AND STANDARDS
William A. Bruce, USA

SOME TECHNOLOGICAL FEATURES IN THE IMPLEMENTATION OF THE ASSEMBLY WELDING WORKS FOR THE CONSTRUCTION OF ISOTHERMAL TANKS
Marin Beloev, Nikolay Lolov, Bulgaria

APPLICATION OF PRESS WELDING TECHNIQUES FOR DIFFERENT TYPES OF CORROSION OF THE PIPES IN THE CONSTRUCTION FIELD PIPELINES
Viktor Brovko, Mihail Grigoriev, Vladimir Khomenko, Russia

MECHANICAL PROPERTIES AND STATISTICAL DATA ON THE RELIABILITY OF WELDED JOINTS OF PIPELINES EXECUTED BY FLASH-BUTT WELDING
Khomenko V.I., Lorenz V.Ja., Beloev M., P. Darjanov, Russia
TECHNOLOGY AND EQUIPMENT FOR FLASH-BUTT WELDING OF THICK-WALLED TUBES OF OIL FISHING IS POSSIBLE
V. Khomenko, Kazantsev Yu., Kazantsev M., Vinogradov V., Yakovenko, A., Sazonov S., Russia

NEW HIGHLY PRODUCTIVE TECHNOLOGY OF COMBINED WELDING OF MAIN PIPELINES OF MAJOR DIAMETER
Vladimir Khomenko, Russia

CAUSES FOR FrACTURE APPEARANCE IN THE ARC WELDED JOINTS OF X60M (L415MB) STEEL PIPES
Sveto Cvetkovski, Macedonia

A-TIG IN PIPE WELDING
Miroslav Dramićanin, Sebastian Baloš, Petar Janjatović, Ivan Zabunov, Milan Pećanac, Dragan Rajnović, Leposava Siđanin, Serbia

13:00-15:00  Topic 1: High Quality Welding

INVESTIGATION OF RESIDUAL STRESSES IN DISSIMILAR COPPER-STEEL JOINT WELDED BY ELECTRON BEAM
Petar Petrov, D. Kaicheva, G. Bokuchava, I. Papushkin, S. Valkov, Bulgaria

IMPROVEMENT OF THE PROPERTIES OF LAYERS OBTAINED BY SURFACING USING TIN AND SIC NANOPARTICLES
Hristo Kondov, P. Tashey, E. Tasheva, Bulgaria

LASER CLADDING USING HIGH ALLOYED POWDERS
Alexandru PASCU, Elena Manuela STANCIU, Mircea Horia ȚIREEAN, Cătălin CROITORU, Romania

LASER WELDING OF DISSIMILAR STEELS
Elena Manuela STANCIU, Alexandru PASCU, Teodor MACHEDON, Elena MACHEDON, Ionut Claudiu ROATA, Romania

INFLUENCE OF HVOF DEPOSITION THICKNESS ON ADHESION STRENGTH OF WC–CRC–NI COATINGS
Alin Murariu, I. A. Perianu, Romania

INFLUENCE OF CUTTING PARAMETERS ON THE QUALITY OF THE CUT SURFACES OF STEELS WITH A LASER BEAM
Dobre Runchev, Filip Zdraveski, Irena Ivanova, Macedonia

THE INFLUENCE OF WELDING SPEED AND CURRENT IN WELD SHAPE IN FORCE ARC PROCESS
Petar Janjatović, Borislav Savković, Pavel Kovač, Sebastian Baloš, Miroslav Dramićanin, Ivan Zabunov, Serbia

13:00-15:00  Topic 2: Structural Integrity and Life of Welded Joints/Structures

COMPREHENSIVE APPROACH TO WELD REPAIR ON ELEMENTS OF POWER TRANSMISSION – CASE STUDY FOR HYDRO TURBINE SHAFT
Dejan Momčilović, Serbia

THE INTEGRITY AND LIFE OF WELDED CONSTRUCTION
Mersida Manjgo, Meri Burzić, K. Ćolić, DŽ. Gaćo, Zijah Burzić, Bosnia & Herzegovina

MONITORING PROGRAM FOR MATERIAL’S DEGRADATION DURING EXPLOATATION AND ASSESSMENT OF STRUCTURE SAFETY FOR LIFETIME EXTENSION
Sead Avdić, Bosnia & Herzegovina

ANALYSIS OF THE INFLUENCE OF DIFFERENT TYPES OF COATINGS ON INCREASING THE WORKING LIFE OF CONSTRUCTIONAL ELEMENTS OF THE VENTILATION MILL AND REDUCING THE WEAR OF WORKING SURFACES
Marko Ristić, Ivana Vasović; Vladimir Bošković; Christof Sommitch; Jasmina Perišić, Serbia

NEW TOOLS FOR STEELS WELDABILITY MODEL BASED ON THE RISK ASSESSMENT
Bodea Marius, C.V Prică, N.A. Sechel, Romania

ANALYZING THE BEHAVIOR OF TERMONERGETIC FACILITIES USING CFD, TERMOGRAPHY AND EXPERIMENTAL ANALYSIS
Ivana Vasović, Marko Ristić; Mirko Maksimović; Radica Prokić-Cvetković; Ljiljana Radovanovč, Serbia
VENUE

Serbia has connected West with East for centuries – a land in which civilisations, cultures, faiths, climates and landscapes meet and mingle.

Located in the centre of the Balkan Peninsula, in south-eastern Europe, Serbia is a crossroads of Europe and a geopolitically important territory. The international roads and railway lines, which run through the country’s river valleys, form the shortest link between Western Europe and the Middle East.

From the agricultural regions of the Pannonia Plain in the north, across the fertile river valleys and orchard-covered hills of Šumadija, the landscape of Serbia continues southward, gradually giving way to mountains rich in canyons, gorges and caves, as well as well-preserved forests.
The cultural and historical heritage of Serbia begins with prehistoric archaeological sites and its legacy from classical antiquity. Perhaps its greatest riches, though, are in the many mediaeval Serbian churches and monasteries, some of which are included on the UNESCO World Heritage list.

Today, Serbia is a modern, democratic European country, on the path to membership of the European Union, which a diverse range of visitors – from young backpackers to participants in congresses and fairs – visit every day.

http://www.serbia.travel/about-serbia.713.html

Belgrade is the capital of Serbia and also capital of the Serbian culture, education, science and economy. City lies at the confluence of the Sava and Danube rivers.

The area around two great rivers has been inhabited as early as Palaeolithic period.

Belgrade is one of the oldest cities in Europe, first settled in the 3rd century BC by the Celts and since ancient times it has been an important traffic focal point, an intersection of the roads of Eastern and Western Europe.

The name BELGRADE (meaning white city: beo - white, grad - city) is the Slavic version of its old Celtic name, Singidunum.

There are many things to see in Belgrade such as the Belgrade Fortress and the Kalemegdan Park, the main street and pedestrian zone - Knez Mihailova St., the famous bohemian quarter - Skadarlija, Ada Ciganlija - “Belgrade Sea”, the Parliament, St. Mark's Church and the Tašmajdan park, the Church of St. Sava and Karadjordje’s Park, the Old Palace, Royal Palace, White Palace (Assembly of the City of Belgrade) and many more impressive historical and tourist attractions from various historical periods, museums, cultural monuments of great importance or even Belgrade underground. The hilltop Avala Monument and Avala Tower offer views over the city.

Congress Venue - The Congress will take place at the Metropol Palace Hotel

Originally designed as the venue for a conference in 1960s, the hotel today blends the era’s international architectural and interior style with contemporary luxury.
Metropol Palace’s central setting next to the grand Tašmajdan park invites you to explore Belgrade’s many monuments, palaces, theatres and museums all within a short stroll from the hotel.

http://www.metropolpalace.com/

ACCOMODATION

As the congress takes place in the very center of the city, there are many possibilities for accommodation, both in hotels and hostels, apartments, guesthouses etc. Here are some of them:

Metropol Palace http://www.metropolpalace.com/
Zira Hotel http://www.zirahotels.com/
Hotel ParkBeograd http://www.hotelparkbeograd.rs/
Hotel Prag http://www.hotelprag.rs/
Hotel Tash http://www.hoteltash.com/
Belgrade apartments: https://belgrade-apartments.net/ https://beoapartman.com/
CONGRESS SOCIAL PROGRAMME

Gala Dinner will be held in Restaurant “Jezero by Azzaro”. Transportation of congress participants will be organized in front of Metropol Hotel at 20h.

Beside Welcome reception cocktail and Conference dinner provided for all participants, participants and their accompanying persons can participate in tours such as:

**Belgrade sightseeing walking tour (3 hours), October 10th** - Meeting point at the hotel Metropol at noon (12:00 pm), meeting guide and introduction, the walking through Vračar streets toward Nikola Tesla museum and some interesting info about, then going to Saint Sava temple with visit to the crypt if the guest want (it is amazing).

Later we go to Slavija square and the King Milan Street with the flowers square, student cultural center and 3rd highest building Beogradjanka and the oldest tree in the city center. We will see the old and the new Royal palaces (nowadays city hall and presidency) pioneers park, Terazije square with the old fountaun and hotel Moscow, the Palace of Albania, the Republic Square. Pedestrian Street Knez Mihailova, Kalemegdan Park with Belgrade fortress, victor monument, confluence of the Sava and the Danuve rivers, stories about history, New Belgrade and the old town of Zemun as well. After this we go to agreed position for pick up transport back to hotel.

**Post Congress tour: Vojvodina tour (Sremski Karlovci, Fruska Gora monasteries, Winery visit), October 13th** - Slopes of Fruska Gora and Sremski Karlovci are significant places for Serbia’s history, culture and national heritage. For number of visitors of Serbia these places are „a must“, and there is a firm reason for each of them. For some it’s a place of spirituality thanks to eighteen living monasteries, for others it’s a region of wine with more than 60 wineries and for some it’s just a place of beautiful nature in National park of Fruska Gora. The Town of Sremski Karlovci combines all of it: history, religion, wine and beauty.
## EXHIBITION AREA

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![Exhibition Area Diagram](image)
CONTACT & INFORMATIONS

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All updated information regarding the Congress can be found on the congress website:
seeiiw2018.duzs.org.rs