

## Final Program



### 4<sup>th</sup> Hungarian-Korean-Japanese Joint Seminar on Design, Fabrication, and Maintenance of Welded Steel Structures, 2025

#### 1. Purpose

This joint seminar is held to exchange knowledge of the design, fabrication, and maintenance of welded steel structures in mechanical, automotive, architecture, and civil engineering between Hungary, Korea, and Japan. Research activities in these countries are introduced to make strong relationships among them. The first seminar was held in September 2021, the second in March 2023 and the third in March 2024. This is the fourth seminar. Researchers and engineers in any other country interested in these topics can join the meeting. The logo marks at the top of this document are the universities/institutions/companies associated with the lectures for this seminar. Furthermore, this seminar has a role at the International Institute of Welding ([www.iiwelding.org](http://www.iiwelding.org)), commission XV (Design, Analysis, and Fabrication of Welded Structures) as an intermediate meeting of SC-A (Chair: Prof. Chang), SC-D (Chair: Prof. Azuma) and SC-F (Chair: Prof. Jármai) in IIW C-XV.

#### 2. Date: 26<sup>th</sup>, February 2025

08:00 – 11:00 (CET)

16:00 – 19:00 (JPT)

#### 3. Style: Hybrid

Physical attendance: Sojo University, Kumamoto, Japan

<https://www.sojo-u.ac.jp/en/access/>

<https://www.sojo-u.ac.jp/en/campus/campusmap/>

2<sup>nd</sup> Floor, SoLA, Ikeda Campus (Building number: 39)

Online: ZOOM

<https://us02web.zoom.us/j/83852151248?pwd=PY4s2vmop8Tt4xCE7DtlyE2mrqNKEE.1>

Meeting ID: 838 5215 1248

Passcode: 203923

#### 4. Presentations

Presentation: 10 minutes and Discussion: 4 minutes, per presenter

#### 5. Contact addresses

- Károly Jármai (University of Miskolc, Hungary): [karoly.jarmai@uni-miskolc.hu](mailto:karoly.jarmai@uni-miskolc.hu)
- Kyong-Ho Chang (Chung-Ang University, South Korea): [changkor@cau.ac.kr](mailto:changkor@cau.ac.kr)
- Koji Azuma (Sojo University, Japan): [azuma@arch.sojo-u.ac.jp](mailto:azuma@arch.sojo-u.ac.jp)
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## 6. Program

Time (CET / Korea, Japan)	Presenters	Title
08:00 – 08:35 (16:00 – 16:35)	Kyong-Ho Chang, Chair of C-XV (Chung-Ang University, South Korea)	Opening Remarks and C-XV Business
08:35 – 08:49 (16:35 – 16:49)	Károly Jármai, (University of Miskolc, Hungary), Mikihito Hirohata (Osaka University, Japan)	Cost and time calculations using different welding technologies
08:49 – 09:03 (16:49 – 17:03)	Nguyen Huong Huu, Liu Guoliang, Kazuki Miyamura, Keita Marumoto, Motomichi Yamamoto (Hiroshima University, Japan), Takahito Nakamura, Taizo Kobashi, Toshiaki Okabe, Hiroyuki Takeda (KOBELCO WELDING TechnoSolutions, Japan)	Development of visualization system utilizing image processing techniques for welders
09:03 – 09:17 (17:03 – 17:17)	Tamaki Ito, Shaowei Yang, Kenji Shinozaki, Keita Marumoto, Motomichi Yamamoto (Hiroshima University, Japan)	High-magnification in-situ observation of welding solidification phenomena in various stainless steels
09:17 – 09:31 (17:17 – 17:31)	Sulaiman Shojai, Moritz Braun (DLR Institute for Maritime Energy Systems, Geesthacht, Germany)	Impact of accelerated corrosion on weld geometry, hardness and residual stresses of offshore steel joints over time
09:31 – 09:45 (17:31 – 17:45)	Raghawendra P.S. Sisodia, Marcell Gáspár (University of Miskolc, Hungary), Sumit Ghosh (University of Oulu, Finland), Erika Hodúlová (Institute of Materials and Machine Mechanics, Slovak Academy of Sciences, Slovakia)	Mechanical performance evaluation of normal and over-focused electron beam welded joints in S1100M ultra-high strength steel
09:45 – 09:59 (17:45 – 17:59)	Jiahao Mao, Mikihito Hirohata, Feng Jiang (Osaka University, Japan)	Effect of soft metal insertion on fatigue performance of fillet weld roots under bending-shear coupled loading
09:59 – 10:13 (17:59 – 18:13)	Koji Azuma, Takuya Akahoshi, Tsutomu Iwashita, Toshiomi Itatani (Sojo University, Japan)	Improvement of weld details to avoid brittle fracture initiating at the toes of the weld access hole of the beam end – Part III. Applicability of improved details to full-scale beam- to-column connections
10:13 – 10:27 (18:13 – 18:27)	János Lukács (University of Miskolc, Hungary)	The integrity of pipeline girth welds without and with composite reinforcing based on full-scale tests
10:27 – 10:41 (18:27 – 18:41)	Kyong-Ho Chang, Nizam Khan Sazid (Chung-Ang University, South Korea) Mikihito Hirohata (Osaka University, Japan)	Verification of the conditions of post-heat treatment for improving the fatigue life of T-type fillet welds using fatigue FEM
10:41 – 11:00 (18:41 – 19:00)	Kyong-Ho Chang, Chair of C-XV (Chung-Ang University, South Korea)	C-XV Business and Closing Remarks