



## Hungary-Korea-Japan Joint Seminar on Design, Fabrication and Maintenance of Welded Steel Structures

### 1. Purpose

This joint seminar is held to exchange knowledge of design, fabrication and maintenance of welded steel structures in mechanics, automotive, architecture and civil engineering field between Hungary, Korea and Japan. Research activities in these countries are introduced for make strong relationships among them.

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: 17<sup>th</sup>, September, 2021

3. Style: Online seminar (Microsoft teams)

### 4. Publication

All papers are peer-reviewed, and the accepted ones will be published in the *Applied Mechanics*, published by an Open Access Journal. (<https://www.mdpi.com/journal/applmech>)

### 5. Schedule

Time (CEST / Korea, Japan)	Contents	Title
08:00 – 08:25 (15:00 – 15:25)	Opening message and Keynote speech (1) Prof. Jármai Károly (Miskolc Univ.)	A Box-Girder Design Using Metaheuristic Algorithms and Mathematical Test Functions for Comparison
08:25 – 09:25 (15:25 – 16:25)	Session 1	
	T. Akahoshi (Sojo Univ.)	Study of the Effects of Crack Opening Modes on Fracture Toughness Using Mixed-mode Ratio
	Yasuyuki Kurihara (Kindai Univ. & JFE Steel Corporation)	Investigation on Residual Compressive Distribution of High- Strength Steel for Bridges by Base Metal Hammer Impact Peening
	Tomoharu Kato (Kindai Univ.)	Effect of Microchip Laser Peening on Residual Stress and Fatigue of HT780 Batt-welded Joint
	M. Hirohata (Osaka Univ.)	An Economical and Mechanical Investigation on Local PWHT for Stiffened Steel Plates in Bridge Structures
09:25 – 09:35 (16:25 – 16:35)	Break	
09:35 – 10:35 (16:35 – 17:35)	Session 2	
	T. Nakahara (Osaka Univ.)	Development of Paint-coating Removal Method by Heating for High-strength Bolted Joints in Steel Bridge
	F. Jiang (Osaka Univ.)	Effect of Patch Welding Repair on Compressive Strength of Thickness-Reduced Steel Member
	Z. Virág (Miskolc Univ.)	Modal analysis of optimized trapezoidal stiffened plates under lateral pressure and uniaxial compression
	M. Petrik (Miskolc Univ.)	Comparison of optimized steel frame structures

10:35 – 11:00 (17:35 – 18:00)	Keynote speech (2) and Closing message Prof. Chang Kyong-Ho (Chung-Ang Univ.)	Fatigue Analysis of welded joint in Offshore Tripod Support Structure
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Presentation: 10 minutes and Discussion: 4 minutes, per presenter

Please join to the seminar online:

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_ZTFmNTQwMTQtYjU3NS00NmIyLWFkZTctZjg4ZjRmMWQ5NTBh%40thread.v2/0?context=%7b%22Tid%22%3a%22c43201f8-7cd8-4144-9080-ec5947253558%22%2c%22Oid%22%3a%22fe7dbfa3-9c18-4877-b245-c8c7ae496d77%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_ZTFmNTQwMTQtYjU3NS00NmIyLWFkZTctZjg4ZjRmMWQ5NTBh%40thread.v2/0?context=%7b%22Tid%22%3a%22c43201f8-7cd8-4144-9080-ec5947253558%22%2c%22Oid%22%3a%22fe7dbfa3-9c18-4877-b245-c8c7ae496d77%22%7d)