

| Time<br>(CST / Korea,<br>Japan)  | Contents   | Title  |
|----------------------------------|--|--|
| 08:00 – 08:20<br>(16:00 – 16:20) | Opening message and keynote speech<br>Károly Jármai<br>(University of Miskolc, Hungary)  | How to consider the environmental effects of welding in the design of steel structures   |
| 08:20 – 09:20<br>(16:20 – 17:20) | Session 1 Chair: Hirohata Mikihito (Osaka University)<br><br>Máté Petrik, Károly Jármai<br>(University of Miskolc, Hungary)  | Comparison of different water tank leg cross sections in case of fire  |
|                                  | Károly Jármai, Gregory MacRae, Charles Clifton, Pingsha Dong, Kaveh Andisheh, Hafez Taheri, Nandor Mago, and Michail Karpenko (New Zealand project )                         | Optimization of the reusable seismic frame design for the circular design concept - New Zealand's Construction 4.0 Project   |
|                                  | Marumoto Keita, Tamata Hajime, Fujinaga Akira, Takahashi Takeshi, Yamamoto Hikaru, Yamamoto Motomichi (Hiroshima University, Japan)  | Optimization and selection of hot-wire GMAW conditions for high-efficiency and low-heat input welding process  |
|                                  | Guan Xiaoyu, Tokumaru Yujiro, Hirohata Mikihito, Mukawa Satoshi, Okada Seiji (Osaka University Japan)  | A proposal for a heat input model for heating correction on welded steel structural members  |
| 09:20 – 09:30<br>(17:20 – 17:30) | Break  |  |
| 09:30 – 10:30<br>(17:30 – 18:30) | Session 2 Chair: Azuma Koji (Sojo University)<br><br>Kato Tomoharu, Sakino Yoshihiro, Sano Yuji, Mizuta Yoshio, Hosokai Tomonao, Tamaki Satoshi (Kindai University, Japan)   | Effect of laser peening on fatigue properties of butt-welded joints with angular distortion  |
|                                  | Sándor Szirbik, Zoltán Virág (University of Miskolc, Hungary)  | Optimized trapezoidal stiffened plates under uniaxial compression and suddenly applied pressure  |
|                                  | Ladislav Galduš, Mohamad Al Ali, Peter Platko, Stanislav Kmeť, Rastislav Varga (TU Košice, Slovakia)   | Monitoring of strains and deflections of steel cantilever using a contactless measurement method   |
|                                  | Száva János, Betti Bolló, Száva Ildikó-Renáta, Vlase Sorin, Jármai Károly, Gáláțan Teofil-Florin, Bencs Péter, Gálfi Botond-Pál (Transilvania University of Brasov, Romania) | Experimental validation of the heat propagation: results of the numerical modeling for the real scale steel structural element and different assigned models subjected to a simulated fire |
| 10:30 – 10:50<br>(18:30 – 18:50) | Keynote speech (2)<br>Azuma Koji (Sojo University, Japan)  | Improvement of weld details to avoid brittle fracture at the I-section beam-to-square hollow section column connections  |
| 10:50 – 12:00<br>(18:50 – 20:00) | Break<br>(Lunch/Dinner)  |  |
| 12:00 – 12:45<br>(20:00 – 20:45) | Session 3 Chair: Máté Petrik (University of Miskolc)<br><br>Nico Wilke (University of Pretoria, South Africa)  | The application and potential of gradient-only surrogates in structural optimization   |
|                                  | Imre Timár, Ákos Gergely Horváth (University of Pannonia Hungary)  | Optimal design of wind wheel   |
|                                  | János Lukács and Ahmad Yasser Dakhel (University of Miskolc)   | Full-scale fatigue and burst tests on notched pipeline girth welds under complex loading conditions  |
| 12:45 – 13:05<br>(20:45 – 21:05) | Keynote speech (3) and closing message<br>Muzaffer Shazia, Chang Kyong-Ho (Chung-Ang University, South Korea)  | Fatigue life evaluation of tubular joints with or without hidden welds   |