



**INTERNATIONAL INSTITUTE OF WELDING**

*A world of joining experience*

**XV-1668-2024**

## **Commission XV**

**DESIGN, ANALYSIS AND FABRICATION  
OF WELDED STRUCTURES**

**C-XV Meeting, 77<sup>th</sup> IIW Annual Assembly**

**Rhodes**

**XV-1668-2024 – Final Agenda**

**8 - 9 July 2024**



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**XV-1668-2024**

**C-XV È DESIGN, ANALYSIS AND FABRICATION OF WELDED STRUCTURES**

**Chair: Dr. Stefano Botta (Italy)**

**Vice Chair: Dr. Jean Gerald (France)**

**Vice Chair: Prof. Dr. Károly Jármai, (Hungary)**

**XV-A: Analysis**

**Chair: Prof. Kyong Ho Chang (Republic of Korea)**

**XV-B: Design**

**Chair: (*currently no Chair*)**

**XV-C: Fabrication**

**Chair: Dr. Samuel Chance (USA)**

**XV-D: Planar Structures**

**Chair: Prof. Koji Azuma (Japan)**

**XV-E: Tubular Structures**

**Co-Chair: Dr. Tak-Ming Chan (China)**

**Co-Chair: Dr. Ben Young (China)**

**XV-F: Economy**

**Chair: Prof. Dr. Karoly Jarmai (Hungary)**

**JWG XIII-XV: Fatigue Design Rules**

**Chair: Prof. Dr.-Ing. Adolf Hobbacher (Germany)**



8 July 2024 **Day One**

09:00 - 09:10 - **Welcome Address** (S. Botta, C-XV Chair, Italian Institute of Welding, ITALY)  
- **Approval of Agenda (XV-1668-2024)**

**SESSION 1: ADMINISTRATIVE MATTERS**

09:10 - 09:20 **XV-1675-2024** **Annual Report 2024 of JWG XIII-XV** (Adolf HOBACHER)  
09:20 - 09:30 **XV-1670-2024** **Annual Report 2024 of IIW Sub-Commission XV-A** **Analysis** (Kyong Ho CHANG)  
09:30 - 09:40 **XV-1673-2024** **Annual Report 2024 of IIW Sub-Commission XV-E** **Tubular Structures** (Tak-Ming CHAN/ Ben YOUNG)  
09:40 - 09:50 **XV-1674-2024** **Annual Report 2024 of IIW Sub-Commission XV-F** **Economy** (Karoly JARMAI)

**SESSION 2: TECHNICAL PRESENTATIONS**

10:00 - 10:20 **XV-1676-2024** **Development of Automation and Monitoring Methods for Narrow-Gap Hot-wire Laser Welding Using Camera Images** . K. MARUMOTO, Y. SATO, A. FUJINAGA, T. TAKAHASHI, H. YAMAMOTO, M. YAMAMOTO  
10:20 - 10:40 **XV-1677-2024** **Influence of Tilted Friction Stir Processing on Characteristics of Steel Butt-welded Joints** . F. JIAN, Y. TANG, M. HIROHATA, Y. MORISADA, M. MUKUDA, H. FUJII

10:45 - 11:15 **Break**

11:20 - 11:40 **XV-1678-2024** **Narrow-gap Hot-wire Laser Welding for Aluminum Alloy Joint** . J. GREEBMALAI, S. SADASUE, K. MARUMOTO, I. TAMAKI, M. YAMAMOTO

11:40 - 12:00 **XV-1679-2024** **Structural optimization of a welded and bolted reusable frame** . K. JARMAI, M. HASANALI, K. ANDISHEH, M. KARPENKO

12:00 - 12:20 **XV-1682-2024** **Analysis of the effect of deck U-rib stiffener shape on the fatigue life using 3D fatigue FEM** . K. CHANG

12:20 - 12:30 **XV-1672-2024** **Annual Report 2024 of IIW Sub-Commission XV-D** **Planar Structures** (Koji AZUMA)

12:30 - 13:00 **Day One Closing Remarks**



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9 July 2024 **Day Two**

09:00 - 09:10 - **Welcome Address** (S. Botta, C-XV Chair, Italian Institute of Welding, ITALY)

**SESSION 2: TECHNICAL PRESENTATIONS (CONT.)**

09:10 - 09:30 **XV-1684-2024 AI-Driven Simulation of Overlay Welding for Active Exploration Of Weld Distortion Scenarios On Cloud-Based Digital Twins** . M. ASADI

09:30 - 09:50 **XV-1685-2024 Residual Life Assessment (RLA) and standardization** . L. GUILMOIS

**SESSION 3: C-XV BUSINESS**

09:50 - 10:10 **XV-1680-2024 Report of the Jury for the Ugo Guerrera Prize 2025** (Kyong Ho CHANG)

10:10 - 10:20 **XV-1671-2024 Annual Report 2024 of IIW Sub-commission XV-C Fabrication** (Samuel CHANCE)

10:20 **10:40 Visit from WitW Editor**

10:45 - 11:15 **Break**

11:15 - 11:35 **On the new ISO 17607** . R. SHAW

11:35 - 12:00 **Election of new Chair of Commission XV and attendance recognition for Prof. Karoly Jarmai**

**SESSION 4: CLOSING REMARKS**

12:00 - 12:30 **Review of Recommendations, review of Resolutions, any other business**

**SESSION 5: C-XV POSTER PRESENTATION (Exhibition area)**

**Striving for Welding Integrity of Pressure Vessels and Piping Systems in Gas, Oil and Energy Infrastructure Projects** **G. VALLIOS**