

IIW 2018 International Conference on Advanced Welding and Smart Fabrication Technologies

15 - 20 July 2018

Bali, Indonesia



The International Institute of Welding (IIW) 2018 International Conference, organized by Indonesian Welding Society (IWS) was held successfully on 15-20 July 2018 at Bali Nusa Dua Convention Center, Bali - Indonesia. In conjunction with the 71st IIW General Annual Assembly, the conference provided a forum for networking and knowledge exchange among scientists, researchers, and industry related to welding, joining and general materials-manufacturing field.

The following topics have been covered during the conference: Advanced Welding Processes and Technologies, Welding Automation and Simulations, Design, Fabrication, Inspection and Quality Assurance of Welded Products, Corrosion and Surface Protection of Welding as well as special Sessions in Maritime, Transportation, Offshore Industries and Materials Engineering. A number of 135 oral and poster papers were presented at the conference. In addition, 5 (five) keynote lectures were staged between sessions. The conference also presented the 2018 IIW Houdremont Award given to Mr. Pratjojo Dewo (Komatsu Indonesia). A total of 57 papers have been included in this proceeding after reviewing process.

We would like to thank all presenters, participants and reviewers for their valuable contributions to the IIW2018 Internasional Conference. Special thanks to IIW, IWS, Universitas Indonesia and all participating sponsors, as well as Dyandra Convex for excellent support during the conference organization.

We look forward to the next IIW conferences and hope to have more contributions from all over the world.

Prof. Dr. Muhammad Anis, Universitas Indonesia

Dr. Badrul Munir, Universitas Indonesia

Conference host and organizers:



The IIW 2018 International Conference Committee

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- Agung Nugraha

**The IIW 2018 International Conference
Keynote Speakers and Houdremont Award**

Chris Smallbone, IIW Past President (2005-2008), WTIA CEO Emeritus, Australia
Building Up a National Welding Capability in a Country

Prof. Pingsha Dong, Professor at Department of Naval Architecture and Marine Engineering and Department of Mechanical Engineering of The University of Michigan, USA
Modular Construction of Modern Lightweight Ship Structures: Challenges and Technology Enablers

Prof. Dr. Djarot S. Wisnubroto, Chairman of National Nuclear Energy Agency of Indonesia – BATAN
Non-Destructive Testing at BATAN for Welding Applications

Dr. Eric Sjerne, Chief Technology Officer IRISNDT, Canada
Modern NDT innovations as applied to the global joining industry

Prof. Surendar Marya, Emeritus Professor at Ecole Centrale Nantes, France
Cross Roads of Welding and Additive Manufacturing- Overview from Material Science Perspectives.

The IIW2018 Houdremont Award presented to:

Mr. Pratjojo Dewo, President Director Komatsu Indonesia
Recent Trends and Challenges in Fabrication of Indonesian Heavy Equipment Industry