

Focus on welding innovation: 71st IIW Annual Assembly held in Bali in July 2018

Innovation in welding technology for Additive Manufacturing and Industry 4.0 applications were among the trending topics discussed by over 600 professionals who gathered at Nusa Dua, Bali/Indonesia on 15-20 July 2018 for the 71st Annual Assembly of the International Institute of Welding (IIW) and International Conference 'Advanced Welding and Smart Fabrication Technologies for Efficient Manufacturing Processes'. With worldwide membership from welding associations in 55 countries, the week-long event contributed significantly to IIW's Vision: 'To be the leading global community linking industry, research and education to the advancement of welding and joining for a safe and sustainable world'.

"International networking and cooperation are the essence of IIW, bringing together the best and brightest to tackle the challenges faced by today's global industry," said IIW President Mr Doug Luciani (Canada). "The warm Balinese culture was a perfect fit for what we refer to as our 'family' at IIW, and the outcomes for the week were outstanding in all aspects of our activities."

Well organised and hosted by the Indonesian Welding Society, activities included the General Assembly of Member Societies and meetings of the 20 IIW Technical

Commissions and Study Groups, Working Units in the areas of Regional Activities and Standardisation, Board of Directors, and the International Authorisation Board delivering personnel and company qualification and certification systems to industry. International cooperation and networking were enhanced through a Young Professionals programme, the Opening Ceremony which saw the presentation of prestigious IIW Awards followed by the Welcome Reception, an Indonesian night, Gala Banquet and the International Conference.

Adoption of a new 5-year strategic plan

The General Assembly saw the adoption of a new 5-year strategic plan by the IIW members - including the updated Vision Statement and a revised Mission: 'To advance welding and joining through a worldwide network' - a high level document which will ensure the future relevance and viability of the Institute while acknowledging its significant achievements over the 70 years since its inception in 1948. The Board of Directors, regularly refreshed with top-level representatives from industry and organisational backgrounds, will now work with the members to finalise an operational plan

and develop improved structures to support this strategy.

At the grass roots level of the Institute, the technical Working Units (WUs) are chaired by experts from around the world who play an essential role in developing the IIW technical programme. This year five retiring chairs were recognised for their distinguished voluntary service during their terms of office: Dr Eric Sjerve (Canada), Dr Wolfgang Zschiesche (Germany), Prof. Yoshinori Hirata (Japan), Prof. Dr-Ing. Volker Schoeppner and Dr Warren Miglietti (USA). IIW welcomed incoming chairs Prof. Marc Kreuzbruck (Switzerland), Mr Geoff Melton (UK), Dr Huaping Xiong (P.R. China) and Dr Hee Jin Kim (Republic of Korea).

The growing importance to industry of the field of Additive Manufacturing (AM) was confirmed through presentations and discussion at meetings of the WUs during the first four days of the Assembly. A full-day joint meeting on this topic drew close to 90 experts from five different IIW WUs, which highlighted the strength of the Institute's global collaborative model of operation - bringing together a broad cross-section of the most well-informed people, from the welding and related industries and associated research, academic and education-

IIW General Assembly. (Photos: IIW)





This year's IIW Annual Awards were presented during the Opening Ceremony.

al establishments around the world. An outstanding presentation by Prof. Américo Scotti, visiting Professor at University West, Sweden and Chair of the IIW Study Group on Welding Research Strategy and Collaboration, on break-through measures to overcome challenges in Wire Arc Additive Manufacturing (WAAM) is just one example of how IIW delivers innovative solutions to industry.

Insights into the huge field of Industry 4.0

In other meetings, some exciting insights were given into the huge field of Industry 4.0 – the name given to the current trend of automation and data exchange in manufacturing technologies, including cyber-physical systems, the Internet of things, cloud computing and cognitive computing. It is envisioned that, with the ever-increasing use of automation in welding, this will become

a hot topic within IIW. Mr Stephan Egerland (Austria), Global Key Account Manager at Fronius International and Chair of the IIW Technical Management Board commented “not only I, but a considerable number of IIW experts, are convinced that this subject is becoming tremendously important for the IIW. First steps are already initiated to deal with this topic in appropriate depth and to make IIW the leading organisation in the world for Industry 4.0 in welding and joining.”

Although the focus was on the business of the Institute and technical output, the parallel social and sightseeing programmes added a welcome respite as well as an opportunity to learn more about the host country and its people. Cooking lessons, cultural tours, butterflies, villages, markets and temple visits were complemented by evening events such as the Balinese night at Jimbaran Beach with local food and entertainment under a star-studded night sky. An enduring memory for attendees at the Gala Banquet on Wednesday evening would have to be the enthusiasm generated by a group of Nusa Dua school children and their teacher. After hearing the children sing and perform playing local Angklung bamboo instruments, the audience was invited to find musical instruments hidden under their tables and to join in. The swelling orchestra joined the youngsters for a ‘jam session’ which became a simple but moving cultural highlight of the week.



At the Gala Banquet.

**OUR CLAIM:
EXCELLENT
JOINING**

pro beam

With the smart technology of electron beam welding, we offer excellent joining technology for challenging components and modern production chains.

- Reproducible at any time as 100% digital
- Maximum precision with minimum distortion
- Ideally suited to heavy-duty components

IIW 2018 Annual Awards

IIW has long recognised the significant contributions of both personal time and professional expertise by all its participants, and this year's Annual Awards, presented during the Opening Ceremony, highlighted the outstanding achievements of the following people (see IIW 2018 Annual Awards Booklet, available at <https://cld.bz/Uykr9P>):

- **Walter Edström Medal:** Dr Damian Kotecki (USA)
- **Fellow of IIW:** Dr Stan David (USA); Dr Zhili Feng (USA); Dr Stephen Liu (USA); Mr Chris Smallbone (Australia)
- **Arthur Smith Award:** Dr Patrick Hochanadel (USA)
- **IIW Regional Activities Award:** Dr-Ing. Vencislav Grabulov (Serbia)
- **Thomas Medal:** Mr Jérôme Dietsch (France)
- **Yoshiaki Arata Award:** Prof. Yoshinori Hirata (Japan)
- **Evgeny Paton Prize:** Dr-Ing. Uwe Reisinger (Germany)
- **Halil Kaya Gedik Award:** Mr Deok-Sang Yoo (Republic of Korea)

- **Welding in the World Best Paper:** Dr Y. Ogino, Prof. Y. Hirata & Prof. S. Asai: „Numerical simulation of metal transfer in pulsed-MIG welding“ (Japan)
- **Henry Granjon Prizes:** Dr Jinle Zeng (P.R. China); Dr-Ing. Peer Woizeschke (Germany); Dr Kyle Toussignant (Canada).

During the week, Dr Damian Kotecki received a 40-year Attendance Award, a further six people received awards for 20 years of attendance at Annual Assemblies, and 10-year Attendance Awards were made to another 15 people.

Under the guidance of a Board of Directors Task Group (TG), two special events for Young Professionals (YP) were held in Bali, and participation in all the week's activities was encouraged through regular newsletters leading up to the Assembly, as well as a 'passport' to gather endorsement for attending WU

INFO

71st IIW Annual Assembly in Bali – Key Facts

- 656 International Participants
- 122 Indonesian Participants
- 384 IIW Annual Assembly Delegates, Experts & Observers
- 97 Young Professionals
- 110 Students
- 67 Accompanying Persons
- 152 Decisions by IIW Working Units
- 123 Papers to Welding in the World journal
- 2 Standards Recommended for ISO Publication
- 4 Documents to ISO for Ballot
- 3 Future IIW International Congresses
- 7 Future IIW Associated Events

meetings, the Trade and Poster Exhibitions, and other activities. Lighter highlights of the YP programme included an icebreaker event and beach party with Indonesian games including a tug of war. These team building activities helped people to get to know each other, to meet international experts and Board members, and to build lasting international friendships and professional cooperation.



ESSEN WELDING AND CUTTING
ACROSS THE GLOBE
BE THERE!

2018 International Conference

The 2018 International Conference, run in conjunction with the Annual Assembly to optimise interaction between international experts and the local organisations, industry and educational sector, had the theme of 'Advanced Welding and Smart Fabrication Technologies for Efficient Manufacturing Processes'.

An outstanding keynote Houdremont Lecture on 'Recent Trends and Challenges in Fabrication of Indonesian Heavy Equipment Industry' presented by Mr Pratjojo Dewo, President Director of PT Komatsu Indonesia Tbk, was one of 97 oral and 30 poster presentations made over the two days. The conference concluded with an excellent farewell lunch attended by around

130 people including local industry leaders, international speakers and members of the IIW Board of Directors.

The 72nd IIW Annual Assembly and International Conference 'New Progressive Materials and Welding Methods in the Automotive Industry' will be held in Bratislava, Slovakia, 7-12 July 2019. Visit www.iiw2019.com for further details. In 2020 the events will be held in Singapore, and in 2021 the IIW Annual Assembly and International Conference will be in Genoa, Italy.

For further information please contact: International Institute of Welding (IIW), Email: iiw@iiwelding.org, Internet www.iiwelding.org. (According to press release from IIW)



Indonesian Night.

"FABTECH 2018" returns to Atlanta/USA

North America's largest metal forming, fabricating, welding and finishing event heads to the Georgia World Congress Center in Atlanta/USA in 2018: On 6-8 November 2018, more than 35,000 attendees and over 1,500 exhibiting companies are expected to gather once again to celebrate metal manufacturing at its best. "FABTECH" also provides educational sessions and expert-led presentations covering the latest trends and technology in the metal forming, fabricating, welding and finishing industries. The show will encompass three halls at the Georgia World Congress Center. Attendees will find a variety of technology pavilions dedicated to Forming & Fabricating, Tube & Pipe, Metalform, Welding, and Finishing.

This year's show will include the following new features:

- **3D/Additive Manufacturing Pavilion**
3D/Additive Manufacturing is one of the fastest-growing technologies of the 21st century. The latest technology in this field will be presented first-hand by various companies at this pavilion in Hall B.
- **Knowledge Bar: Ask the Experts**
The Knowledge Bar held on the show floor in the 3D/Additive Manufacturing Pavilion will hold small group sessions that are designed to provide the opportunity to ask questions about specific

3D/additive manufacturing challenges and get "the scoop" from industry experts. These sessions are presentation-free and all about engaging with knowledgeable people, working through challenges and meeting the visitors' specific information needs.

- **Smart Manufacturing Hub**
Over the last decade, the evolution of the Internet of Things, Big Data and the desire for ever-increasing productivity has driven the smart manufacturing movement. The growing need for education, alongside increased offerings and adoption, has provided us with the opportunity to lead the discussion on the future of making things. The organisers have developed a dynamic area on the show floor to showcase the industry's most advanced smart technologies. The Smart Manufacturing Hub will feature several advanced manufacturing technologies, including automation, advanced materials, 3D printing, the Industrial Internet of Things (IIoT), 3D scanning, and more. Technical presentations from industry-leading smart technology providers will provide insight on recent developments in this rapidly evolving field.

Show admission is free to attendees who preregister by Friday, 2 November 2018. After this date and onsite the registration fee is \$ 50. More information and registration: www.fabtechexpo.com.

 **FABTECH**



"FABTECH 2018" will be held on 6-8 November 2018 in Atlanta/USA (Photo: FABTECH)