

★★★★ 2016 ★★★★★

IIW AWARDS

Honouring significant contributions to welding and joining technology
and the International Institute of Welding



INTERNATIONAL INSTITUTE OF WELDING

A world of joining experience



Each year the IIW honours significant contributions in the fields of welding and joining technology. Individuals are recognised for specific, outstanding, technical achievements, for their illustrious careers, or for long and meritorious service to the IIW.

Many IIW Awards are named to pay tribute to eminent individuals who played a major role at some point in the organisation's history. Whether as founding fathers, champions or pillars of the technical Commissions and Working Units, they each contributed greatly to the furtherance of the IIW's aims and objectives and/or to the development of revolutionary scientific and technical advances in welding and allied processes.

It is the dedication and vision of these famous IIW personalities which set the stage for the organisation to be recognised today as the largest and most prestigious worldwide network for knowledge exchange of joining technologies.

Our congratulations go to the winners of the 2016 IIW Annual Awards.



INTERNATIONAL INSTITUTE OF WELDING
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OPENING CEREMONY

IIW 69th Annual Assembly, Melbourne, Australia
Sunday 10 July 2016

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HENRY GRANJON PRIZE

Sponsored by the Institut de Soudure (French Welding Institute)

Outstanding papers devoted to research into welding and related technologies authored by younger members of the welding community.

CATEGORY A – Joining and Fabrication Technology



Dr.-Ing. Seyed Mohammad Goushegir (Germany) - Friction Spot Joining (FSJ) of Aluminum-CFRP Hybrid Structures.

Dr.-Ing. Goushegir completed his bachelor's degree in materials engineering at Shiraz University, Iran in 2002. After several years working as a materials engineer in the steel industry he was awarded the European Union Erasmus Mundus Scholarship in 2008 to pursue his master's degree in Europe. In 2010, he obtained a MSc Joint Degree, majoring in ceramic composites, from the University of Aveiro, Portugal and the Hamburg University of Technology, Germany.

Since 2011 Dr.-Ing. Goushegir has been working at Helmholtz-Zentrum Geesthacht, developing friction spot joining, an innovative metal-polymer joining technology. He was awarded his doctorate degree in joining technology from the Hamburg University of Technology in 2015.

CATEGORY B – Materials Behaviour and Weldability

Ms Carolin Fink (Germany) - An Investigation on Ductility-Dip Cracking in the Base Metal Heat-Affected Zone of Wrought Nickel Base Alloys - Metallurgical Effects and Cracking Mechanism.

Ms Carolin Fink is currently a Postdoctoral Research Associate at the Department of Materials Science and Engineering, Welding Engineering Program at The Ohio State University. Her research interests include weld cracking and materials degradation phenomena, in particular hot cracking and liquid metal embrittlement, welding metallurgy and weldability of nickel base alloys, welding of dissimilar metals and weldability testing.

Previously Ms Fink worked as a Graduate Research Associate at the Otto-von-Guericke University Magdeburg, Germany, while pursuing her PhD in Mechanical Engineering. She has regularly attend IIW meetings as part of the DVS Young Professional Program and given several presentations in Commission II on her research on ductility-dip cracking in the base metal heat-affected zone of nickel base alloys.





WELDING IN THE WORLD BEST PAPER AWARD

Sponsored by the IIW

The best industrial, research or academic paper published in Welding in the World in 2015.

W. Maurer, W. Ernst, R. Rauch, R. Vallant and N. Enzinger (Austria) - Evaluation of the Factors Influencing the Strength of an HSLA steel Weld Joint with Softened HAZ.

Dr Wilhelm Maurer studied mechanical and industrial engineering at the Technical University of Graz (TUGraz) in Austria and, after graduation, joined the R&D department of voestalpine Stahl GmbH where he focused on welding of high strength steels. In 2014 he received his PhD with excellence from TUGraz for his thesis *Investigating the Effect of a Soft Zone on the Strength Properties of High Strength Welded Joints*. His dissertation was awarded the Franz-Leitner Award of the Austrian Society for Metallurgy and Materials for outstanding work on welding.

Dr Maurer is currently working as Project Manager in the R&D department of voestalpine Stahl GmbH and avocationally as trainer for International Welding Engineer, Technologist and Specialist education. He has published his experimental results in four peer reviewed articles and two conference proceedings.



UGO GUERRERA PRIZE

Sponsored by the Istituto Italiano della Saldatura (Italian Institute of Welding)

Recognising an individual or team responsible for fabrication of an outstanding recently completed welded construction from the viewpoints of design, materials or fabrication methods.



Arup and Yongnam for the design and fabrication of the Singapore Sports Hub National Stadium roof, represented by **Ms Jane Nixon** (Australia).

The 55,000 seat National Stadium of the Singapore Sports Hub was completed in 2014. The movable roof is the defining feature of the stadium and is the world's largest free-span dome, with a span and raise of 310 m and 85 m.

The structure is formed by a series of criss-crossing triangular trusses made up of circular hollow sections. Connections needed to consider fatigue plus ultimate limit design. This, with preference from the fabricator, led to the connections being formed, profile cut, tube-to-tube connections.

As well as complicated 3D geometry, the roof is a highly refined efficient structure leading to limited repetition in connection geometry and loading. An innovative application of a variety of design methods was used to develop a series of design strategies for the tubular connections.

Ms Jane Nixon, Lead Representative for the project, has worked with Arup in Sydney and London on the delivery of structural design for projects around the world. She is now an Associate in the Sydney office, specialising in lightweight long-span roofs and steel structures.



ANDRÉ LEROY MEDAL

Sponsored by the French Delegation

The production of an outstanding large-circulation multimedia application intended for use in welding and allied education and training at any level.

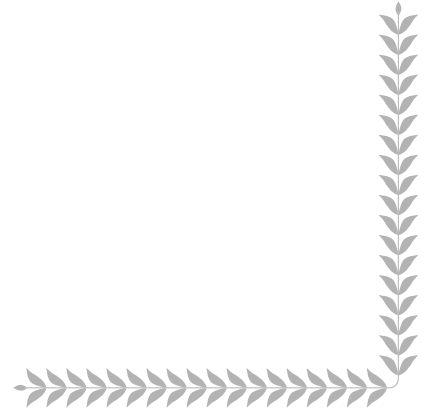


Mr John Petkovsek (USA) and the Lincoln Electric Welding Safety – Interactive DVD and Application.

Mr John Petkovsek is Director of Environment, Health and Safety for Lincoln Electric worldwide and is involved in a range of environment, health and safety initiatives both within the company and for industry as a whole. He is currently Vice-Chair of Commission VIII Health, Safety and Environment as well as the US Delegate to the Commission. The Lincoln Electric Welding Safety – Interactive DVD is designed to educate arc welders about the safety hazards they may encounter while arc welding and the safe practices they should follow. The content in the program is designed to be understood by welders at all experience levels, welding instructors and students, casual welders, professional welders and their supervisors and employers.

Modules include: electric shock, fumes and gases, fires and explosions, miscellaneous safety, and personal protective equipment.

The modules are easily accessed on the Lincoln website or via an application which can be viewed on a device such as a mobile phone or tablet. The tool is available in several languages (either by word or subtitles) and will be modified to expand content or apply additional languages as requests are received. The DVD is available free-of-charge via the website.





YOSHIAKI ARATA AWARD

Sponsored by the Japanese Delegation

To an individual whose extraordinary achievements in fundamental research in welding-related science and technology have been recognised as significant contributions to the progress of welding engineering.

Dr Wayne M. Thomas (UK)

Dr Wayne Thomas, who gained his PhD from the University Bolton, UK was formerly Principal Research Engineer and Consultant in the Innovation Unit at TWI which he had joined in 1983.

The author of over 100 technical papers, Dr Thomas has been responsible for the conception or invention and subsequent development of a number of emergent technologies, one of the most notable being Friction Stir Welding (FSW) in 1991. He was responsible for the development and innovation of high performance FSW tools, and establishing the feasibility of FSW copper (20 mm thick), aluminium (75 mm thick) and steel (25 mm thick), plus zinc, lead and magnesium sheet. He was also involved with the preparation of the ISO draft standard on FSW of aluminium alloys.

Dr Thomas' other innovations include the in-situ manufacture of steel-based metal matrix composites by friction surfacing, extrusion, hydro-pillar processing and plunge welding, third-body friction joining, thermo-mechanical material processing, centrifugal exothermic cladding/welding, moving contact arc welding, and Tribserts™ a mechanical fastener/tribology technique.



WALTER EDSTRÖM MEDAL

Sponsored by the Swedish Delegation

Lauds an individual who has demonstrated outstanding leadership and contributions to the advancement of the IIW as an organisation.



Prof. Dr-Ing. Prof. h.c. Ulrich Dilthey (Germany)

Prof. Ulrich Dilthey has been a member of the German IIW delegation since 1970 and during these years he has attended more than 40 IIW Annual Assemblies and many intermediate meetings and national, regional and international IIW Conferences and Congresses. Throughout this 40-year period Prof. Dilthey has contributed to the work of IIW with numerous Working Unit documents, mainly in Commissions IV and XII and in Study Group 212, with many conference papers and presentations as well as publications in the IIW journal *Welding in the World*.

Prof. Dilthey was a member of the IIW Board of Directors for 10 years and undertook a successful term as President of IIW from 2011 to 2014 and then Immediate Past President. He has been an active member of many of the important Board working groups as well as Chair of the IIW Technical Management Board from 2002 to 2005 and Chair of the IIW International Authorisation Board.

He has contributed significantly and effectively to the growth, promotion and standing of the IIW as a respected global organisation throughout his long career.



ARTHUR SMITH AWARD

Sponsored by the United Kingdom Delegation

Conferred upon an individual who, over numerous years, has given dedicated service to the objectives of IIW, particularly in the work of the Commissions.



Mr Carl-Gustaf Lindewald (Finland)

Mr Carl-Gustaf Lindewald worked in the field of standardisation since 1972, and in welding since 1977 until his retirement 2014. He served the Welding Society of Finland as both a member of the Governing Council and as Secretary and Chair of the Governing Board, and represented Finland in IIW International Authorisation Board (IAB) activities.

Mr Lindewald has been an active member of Commission VI Terminology, Working Group Standardisation and Select Committee Quality since 1982. He has been involved in IAB activities, in particular WGA3a (Welder's Guidelines), where he put a great deal of work into the creation of the question bank and harmonised examinations.

In his capacity as Liaison Officer, he strengthened cooperation between IIW and ISO, in particular the relationship between Commission VI and ISO/TC 44/SC 7. As a concrete result, three Technical Reports: ISO/TR 25901-1 (General Terms), ISO/TR 25901-3 (Welding Processes) and ISO/TR 25901-4 (Arc Welding) have been published using Route I. He is well known for his enthusiasm, relationship building skills and good humour – and for defining French coffees.



THOMAS MEDAL

Sponsored by the American Welding Society

Awarded to an individual who has been involved in IIW/ISO international standards activities and can deliver a lecture on the incorporation of global studies into the standardisation of welding technology.

Mr Robert E. Shaw Jnr (USA)

Mr Robert E. Shaw is a past chair of Commission XV Design, Analysis and Fabrication of Welded Structures, and chairs the IIW Select Committee on Quality Management in Welding and Allied Processes. He has also been involved in IIW's Working Group on Standardisation, Working Group on Regional Activities, and the Technical Management Board.

He is a long-standing member of the American Welding Society (AWS) D1 Structural Welding Committee, and serves on Subcommittees on Steel (D1.1), Seismic Welding Issues (D1.8), Strengthening and Repairing Existing Structures (D1.7), the Executive Committee, and Task Groups on Design and on Prequalification. He serves on the American Institute of Steel Construction (AISC) Specifications Committee, TC6 on Connections, TC12 on Quality Control and Quality Assurance, and the Connections Prequalification Review Panel for seismic connections. Mr Shaw serves on ISO TC167/WG3 working toward the development of a new ISO standard on the execution of steel structures.

To facilitate the exchange of global best practices in steel construction, welding and related standards, Mr Shaw has presented numerous lectures, seminars and workshops around the world.





HALIL KAYA GEDIK AWARD

Sponsored by the Turkish Delegation

Recognising a scientist or engineer who has made outstanding contributions to the advancement of welding science and technology.

Dr Tokihiko Kataoka (Japan)

As Senior Researcher and Deputy Manager of JFE Steel Corporation's Joining and Strength Research Department, Dr Tokihiko Kataoka has developed an ultra-low spatter CO₂ gas shielded arc welding process, marketed as J-STAR® Welding, which is delivering significant improvements in applications in large industrial projects.

A graduate in industrial technology from Osaka University, Dr Kataoka has presented his novel findings to Study Group 212 The Physics of Welding as well as published in major international journals. He is receiving the award under Category B: The Industrial Implementation of Arc Welding.

J-STAR® Welding is performed with an electrode negative polarity using a rare earth metal enhanced wire in a CO₂ gas shielded arc. Through a combination of 'spray transfer' and waveform control, spatter generation is reduced to less than 10% of that from conventional CO₂ gas shielded arc welding methods, thus achieving great productivity improvements in industry.



IIW REGIONAL ACTIVITIES AWARD

Sponsored by the Australian Delegation

Conferred on an outstanding individual who, through involvement in the IIW, an IIW Member Society or outside of the IIW, has made a significant contribution to improving the global quality of life through optimum use and innovation of welding and joining technologies in their region or internationally.

The award honours Mr Christopher Smallbone's 40 years of contributions to IIW regional activities.



Dr Daniel Almeida (Brazil)

Dr Daniel Almeida, who has represented the Brazilian Welding Association (ABS) at IIW since 2005, has worked tirelessly to make the output and programmes of the IIW accessible for the benefit of the economy and the people of Brazil, and to promote the objectives of the IIW Working Group for Regional Activities (WG-RA) in South America.

The introduction of the IIW Education, Training, Qualification and Certification programmes into Brazil has seen ABS authorised to deliver both International Welding Engineer and Specialist qualifications in that country since 2012. Dr Almeida has been a champion of the concept of Welding Coordination, and keenly promotes the uptake of both the personnel and company certification programmes in the region.

With the support of the WG-RA he has organised two very successful IIW International Congresses for the region, in 2008 and the 1st Pan American Congress in 2014. His networking with other South America countries and promotion of IIW benefits and services facilitated Peru joining IIW and has enhanced cooperation between industry, government, educational and other organisations throughout the region.



FELLOW OF IIW

Sponsored by the IIW

Recognises individuals within IIW who have made distinguished contributions to welding science and technology, and promoted and sustained the professional stature of the field.

Dr Mustafa Koçak (Turkey)

Dr Mustafa Koçak completed his PhD degree at the University of Bath, UK in 1982 and undertook post-doctorate study at the University of Liverpool. His areas of interest include advanced welding technologies, microstructure, fatigue, residual stress and fracture assessment of welded structures.

He has given numerous lectures at international events and published about 240 scientific and technical papers as well as editing or co-editing several international conference proceedings in the fields of welding and fracture mechanics.

He has coordinated or been a Task Leader for several European research projects on welding technologies and, with his research group at the GKSS Research Center, Dr Koçak is developing new R&D projects in Turkey and facilitating relationships with universities in Germany. He has been an active participant in the annual meetings of Commissions X, XI and XV for the last 24 years and has served IIW as a member of the Technical Management Board. He has been a Guest Editor of *Welding in the World* and is a co-editor of the IIW White Paper.



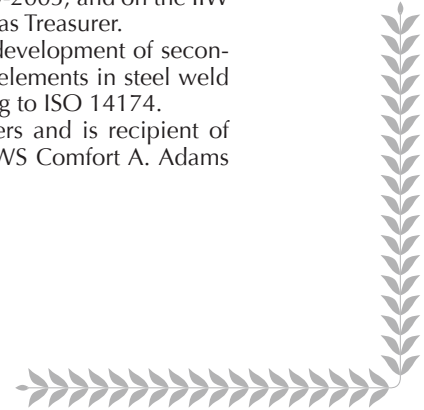
Dr Damian J. Kotecki (USA)

Dr Damian J. Kotecki graduated in Mechanical Engineering from the University of Wisconsin, USA. His thirty-seven year career in welding research was spent with Battelle Memorial Institute and The Lincoln Electric Company. He holds eight patents related to welding filler metals and upon retirement in 2007, established a welding consulting practice.

He joined IIW Commission II in 1978, served as Chair 1992-2003, and continues as a regular participant in this and Commission IX. He has served on Working Group Standardisation since 1991, on the Technical Management Board 1999-2005, and on the IIW Board of Directors from 2004 to 2014 including the last six years as Treasurer.

Dr Kotecki led C-II in dealing with ferrite measurement and the development of secondary standards for calibrating instruments, measurement of trace elements in steel weld metal, and analysis of flux composition for classification according to ISO 14174.

He is author of numerous technical reports and published papers and is recipient of many awards including the IIW Yoshiaki Arata Award and the AWS Comfort A. Adams Memorial Lecture Award.





FELLOW OF IIW

Prof. Dr Kazutoshi Nishimoto (Japan)

Prof. Kazutoshi Nishimoto has demonstrated strong commitment to supporting IIW activities and has made a significant contribution at both technical and management levels. He joined the welding engineering department at Osaka University as a Research Associate in 1977, achieved Professor in 1996 and was designated as Professor Emeritus in 2012. From 1981 to 1982, he also worked with the Fontana Corrosion Centre at Ohio State University in USA and in 1992 VTT Technical Research Centre of Finland as visiting researcher.

He has made significant research contributions especially in welding metallurgy, publishing more than 220 peer reviewed papers in science journals and publishing 16 textbooks.

He has served in various capacities within IIW, most notably as member of the Board of Directors (2010-2012) and the Technical Management Board (2007-2009). He has also served as expert in IIW Commission IX since 1985. During this time, he actively participated in Commission IX meetings during Annual Assemblies giving high quality technical presentations of 42 IIW documents to date.



Prof. Dr John Norrish (Australia)

Prof. John Norrish has worked in welding-related research and development for 50 years, in industry in the UK and Australia before becoming Head of the Welding Group at Cranfield University in 1985, and then moving to the University of Wollongong in November 1995 to take up the Chair in Materials Welding and Joining.

His research activities include welding automation and mechanisation, robotic welding, pipeline girth welding, GMAW process and power source optimisation, laser hybrid welding, weldability of HSLA and coated steels, welding fume control and welders' health. Prof. Norrish has more than 200 publications in refereed journals and international conferences and is also the author of a book, *Advanced Welding Processes*, revised and republished in 2006.

He has been an active member of the IIW for 28 years. He is a member of the editorial committee of *Welding in the World*, Australian Delegate and Vice-Chair of Commission XII and a member of Study Group 212 Physics of Welding.

In 2005 he was awarded the prestigious IIW E.O. Paton award for a lifetime contribution to welding research.



SERVICE RECOGNITION AWARD

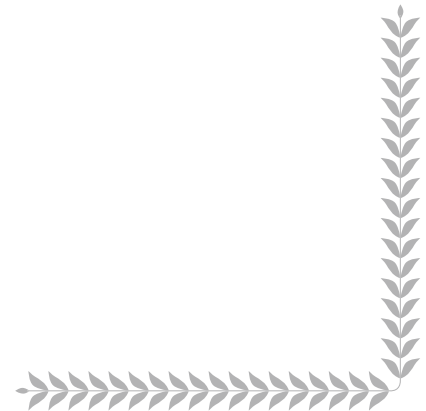
Mr Christopher Smallbone (Australia)

Six year term as Chair of Commission XIV Education and Training.

Mr Christopher Smallbone has been instrumental in facilitating, through his chairmanship of the Commission, collaboration and cooperation between the IIW IAB, IIW Authorised National Bodies (ANBs) worldwide and members of all IIW Working Units for the global uptake of the IIW Education, Training, Qualification and Certification (ETQ&C) programmes.

During the 1980s he was a major proponent of IIW becoming involved internationally in the qualification and certification of welding personnel. As Chair of Working Group 13 of C-XIV his vision and drive culminated in the acceptance of the IIW Qualification Programme by the General Assembly in 1994 and its launch in 2000.

Through his enthusiastic leadership, C-XIV has developed over the past six years into a vibrant forum for the promotion and expansion of the IIW ETQ&C programmes as a cornerstone for the development of National Welding Capability. The commission has also encouraged the sharing of resources, the evaluation of training methodologies and the latest e-tools, and the promotion of welding as a career in order to address the global shortage of competent welding personnel.





INTERNATIONAL INSTITUTE OF WELDING
A world of joining experience

MISSION:

To act as the worldwide network for knowledge exchange of joining technologies to improve the global quality of life.

GOALS:

To identify, create, develop and transfer best practices for sustainable development in a sustainable environment.

To identify, develop and implement the IIW Education, Training,
Qualification and Certification programmes on a global basis.

To promote IIW and its Member Countries in all regions of the world to the mutual benefit of all.

To assist in the implementation of the IIW's output.

To assist in the formulation and preparation of international standardisation documents.

To provide quality services to IIW, IIW Member Societies and other organisations.



AUTOGRAPHS



INTERNATIONAL INSTITUTE OF WELDING
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