



## 2020 AWARDS FOR CAREER ACHIEVEMENTS AND CONTRIBUTIONS TO IIW

### **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*



#### **Mr Ernest Levert**

The development of young professionals is a personal passion for Ernest Levert. As founding Chairman of the Young Leaders Task Group (TG-YL), Mr. Levert has been successful in developing, leading, coordinating and promoting the effort to increase the attendance and participation of young professionals at IIW Annual Assemblies. To help bridge the gap between the young professionals (YPs) and IIW leadership, the Sunday afternoon Icebreakers help build relationships between YPs and Commission Chairs, IIW Board and IAB Board members, and each other. The YP's Tuesday evening social event encourages participation and the forming of strong, global friendships within the IIW. The passport programme has encouraged attendance at Working Unit (WU) meetings and getting to know the WU chairs.

The 5th International Young Professionals Conference in Welding was held in 2019, enabling participants to advance their knowledge and understanding of welding and form professional networks. Mr Levert is investigating the feasibility of IIW student chapters at the college/university level, engaging these students in career path dialogues for future industrial and academic materials-joining careers, and allowing corporate partners access to these students. He mentors YPs by providing exposure to career opportunities within the IIW network, and encourages them as future IIW and industry leaders.

Mr Levert's mentorship includes introducing youth to welding as a skill and career choice. He was a key member

of the AWS Task Group that collaborated with Boy Scouts of America to develop the Welding Merit Badge.

Over 70,000 scouts have earned this badge, many later becoming welding professionals. On a global level, 45,000 scouts from around the world were introduced to welding by Mr Levert and his welding team members at the 2019 World Scouting Jamboree. In addition to his leadership of TG-YL, Mr. Levert has served IIW for 20 years as a USA Delegate, as Chairman of Commission IV, as a member of the Technical Management Board, as a member of the Working Group Regional Activities (WG-RA), and as a Director on the IIW Board of the Directors.

As Chairman of C-IV-B Electron Beam Welding, he was instrumental in establishing the biennial International Electron Beam Welding Conference, a partnership between AWS, DVS and IIW. This conference successfully fulfills its mission to revitalise the IIW electron beam welding community.

He led a major initiative to assist and persuade more countries to become IIW members, particularly using the IIW WG-RA projects, including highlighting the success stories he has witnessed. He has many years of industry experience and organisational leadership that has assisted in the growth of IIW, especially in the recruitment of new industry professionals.

### **FELLOW OF THE IIW AWARD**

Sponsored by the IIW

*Recognises individuals with a minimum of 10 years' active participation in IIW who have made distinguished contributions to welding science and technology and promoted and sustained the professional stature of the field*



#### **Prof. Yoshinori Hirata**

Professor Yoshinori Hirata graduated from the Department of Welding Engineering at School of Engineering, Osaka University in 1974. After completing the master's programme in 1976, he was employed by Hitachi Zosen Shipbuilding and Engineering Company and worked as a welding engineer for pressure vessel production. He then returned to Osaka University and was promoted to professorship in the laboratory of materials processing physics in 2004. Since his retirement in 2016, he has been engaging in the development of the education curriculum as a specially appointed professor of Osaka University. He has also been actively contributing as the welding and joining coordinator to the government project of Research and Development on Innovative Structural Materials carried out by many industries and universities in Japan.



#### **Dr Eric M. Sjerne**

Dr Eric Sjerne received a PhD in Applied Laser Physics from the University of Toronto (1996), and he joined the NDT industry over 20 years ago.

He serves as Chief Technology Officer for IRISNDT, an international non-destructive testing, engineering, heat treating and mechanical services company. Dr Sjerne has been a leader in the global commercialisation of NDT innovations, and also in combining NDT, engineering, robotics and information technology. He has been at the forefront of many pioneering innovations, including commercialising robotics for pressure vessel inspection, applying data analytics to inspection data, designing a phased array calibration block and publishing IIW Handbooks.



#### **Prof. Adolf F. Hobbacher**

Professor Hobbacher graduated in 1961 in mechanical engineering at the Technical University in Stuttgart, Germany. He started his professional career in 1962 in a company for chemical plant equipment, heavy machinery and pressure vessels as a project and design engineer and became later head of the design office.

His academic career started 1967 establishing the new institution which became later the Jade University of Applied Sciences. He finalised his doctorate thesis at the Aachen Institute of Technology in aerospace engineering on the application of fracture mechanics to fatigue of structures. In 1980 he became full professor lecturing in welding technology, structural steelwork, pressure vessels and pipes as well as design methodology. As the head of the welding laboratory, he instigated and established in 1998 the new Institute for Materials and Production Technology, of which he became the first director.

His scientific work was always closely related to welded structures. From 1978 to 2020 he was chairman of the German Welding Society (DVS) working group on design and analysis. In 1974 he was elected as a chairman of IIW Joint Working Group XIII-XV, where he still presides. This group was established to develop applicable fatigue design recommendations in an international agreement. Prof. Hobbacher was elected in 1996 as Chair of IIW commission XV (Fabrication, Design and Analysis of Welded Structures) and was re-elected for the following 10 years.

His scientific efforts resulted into numerous publications and documents in particular the IIW Recommendations for Fatigue Design and Analysis of Welded Components, which have been published in English, French, German and Japanese. These recommendations gained worldwide recognition and served many code-making bodies as a basis for their regulations. He is continuously working on updating and considering recent developments.

Prof. Hobbacher is now retired, but still active in IIW, in scientific projects and consulting.

#### **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*



#### **Dr Glenn Ziegenfuss**

Dr. Ziegenfuss received a bachelor degree in Physics and a PhD in Solid State Science from the Pennsylvania State University in 1966 and 1973, respectively. He became a Certified Association Executive through the American Society of Association Executives in 1990 and received certification in Standards Management and Standards Application from the Standards Engineering Society in 1996. Before becoming involved with association management, Dr Ziegenfuss was a manager at the Westinghouse Bettis Atomic Power Laboratory in Pittsburgh, Pennsylvania, from 1973 to 1984. He was responsible for automatic welding operations for most of the United States Navy's nuclear submarines and aircraft carriers.

After leaving Westinghouse, Dr. Ziegenfuss was affiliated with the American Welding Society in Miami, Florida, from 1984 to 1997, first as Technical Director and then as Associate Executive Director, Technical. After leaving AWS, he was appointed Executive Director of the Standards Engineering Society from 1997 to 2010. He also joined the staff of IIW as Standards Officer from 1999 to 2010. Dr. Ziegenfuss received the George E. Willis Award sponsored by the Lincoln Electric Company for promoting the advancement of welding internationally, and the George S. Wham Leadership Medal sponsored by the American National Standards Institute for outstanding contribution as a visionary in providing direction and long-range planning to the ANSI standards federation.

### **CHRIS SMALLBONE AWARD**

Sponsored by IIW Member Societies from Bulgaria, Greece, Romania and Serbia

*Conferred on an outstanding individual who 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*



#### **Mr Jim Guild**

Mr Jim Guild was born in the UK in 1948. He obtained a BSc Honours degree in Metallurgy from the University of Surrey in 1970 and became a Member of the Institute of Materials and a Chartered Engineer. He emigrated from the UK to South Africa in 1972 where he lives today.

He had a long career as the Manager of Materials Engineering with AECL a major company in the explosives and chemical industry. He wrote and published several technical papers in wide ranging subjects related to those industries and was well known internationally for his knowledge of stress corrosion cracking of ammonia storage facilities.

He joined the Southern African Institute of Welding (SAIW) in 2000 and was the Executive Director of SAIW from 2000 until he retired in 2015. He is an Honorary Life Member of SAIW and an Honorary Life Member of the South African Institute of Steel Construction. Mr Guild became active in IIW in 2001.

For seven years he was Chair of the IIW International Authorisation Board (IAB) Group B and subsequently he was Chair of IAB from 2014 to 2017. He has actively promoted IIW and the IIW system for education, training and certification in welding throughout Africa.

### **THOMAS MEDAL**

Sponsored by the American Welding Society

*Rewards 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 for welding technologies*



#### **Dr Vincent Van Der Mee**

Dr Vincent van der Mee is Director Consumables Research, and Development & Industrialization for Lincoln Electric Europe. He graduated in Analytical Chemistry and has been active in the welding industry for almost 45 years, focused on development and application of welding consumables and holds

several patents related to welding consumables. He has been a continuous participant for over 20 years in IIW CII Arc Welding and Filler Metals, C-IX Behavior of Metals Subjected to Welding and C-VIII Health, Safety and Environment.

From 2003-2012 he served as Chair of IIW C-II, focused on the development of international standards. He is a corresponding advisor of AWS A5C and A5T and Dutch delegate for ISO-TC44- SC3 and CEN-TC121-WG3.

He is actively involved in the European Welding Association (EWA) Technical Commission Consumables and acts as liaison between EWA-TCC and IIW C-VIII.

He participates in European research projects, and strives to align European welding consumable manufacturers within the EWA for a uniform view towards European guidelines, standards and industry.

## 2020 AWARDS FOR OUTSTANDING TECHNICAL ACHIEVE

### YOSHIAKI ARATA AWARD

Sponsored by the Japanese Delegation

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



### Dr Stephen Liu

Dr. Stephen Liu is currently a Research Professor and holds Professor Emeritus title at the Colorado School of Mines (CSM). He was also the inaugural American Bureau of Shipping Endowed Chair Professor at the school, where he rose through the ranks of Assistant, Associate and Full Professor since the 1980s.

He holds Bachelor's and Master degrees in Metallurgy from the Universidade Federal de Minas Gerais (Brazil) and a PhD degree in Metallurgical Engineering from CSM. Prior to CSM, Dr Liu worked as a steel research metallurgist at Acesita (ArcelorMittal) and was an Assistant Professor in Manufacturing Engineering at the Pennsylvania State University.

Dr. Liu has received many prestigious honors: Adams Lecture Award, Savage Award, Spraragen Award, McKay-Helm Award, Peaslee Award, Jennings Award, IIW Jaeger Lecture Award, IIW Gedik Award, amongst others. He was made a Fellow of IIW in 2018. He was also elected Fellow by AWS (1996), ASME (2000), and ASM (2001).

Dr. Liu is also a Fellow of the Institute of Materials, Mining and Minerals (2018), and a Chartered Professional Engineer (1995) in the U.K. He was given the Fulbright Distinguished Chair in Oil and Gas Engineering Award (2015).

Dr. Liu has served as U.S. Delegate to the IIW Commission XVII (Brazing, Soldering and Diffusion Bonding) and participated in several other IIW commissions. He has an associate membership with the National Shipbuilding Research Program and served as a delegate to the International Ship Structures Committee.

### **HALIL KAYA GEDIK AWARD CATEGORY C**

Sponsored by the Turkish Delegation

*Recognises a scientist or engineer's significant contributions to the advancement welding science and technology*



#### **Prof. Zuheir Barsoum**

Professor Zuheir Barsoum received his PhD in Lightweight Structures in 2008 from KTH Royal Institute of Technology, Stockholm, Sweden. He is currently full Professor of Lightweight Structures at KTH, Department of Engineering Mechanics. In 2013- 2016, he held a visiting Professor position in Aerospace Engineering at KUSTAR Abu Dhabi, UAE. His research interest is within; computational weld mechanics, fatigue and fracture of engineering materials and structures, structural integrity and joining of lightweight metals.

Professor Barsoum has been active in IIW since 2003 and is currently Vice-Chair of Commission XIII and a member of the Technical Management Board. He is also on the Editorial Board of *Welding in the World*. He has authored and co-authored more than 150 articles in international journals and conferences. In 2010 he received the Granjon Prize award for his research achievements in structural integrity.

He has been involved in developing the IIW International Welded Structures Designers (IWSD) programme within the Nordic countries and he has been successfully teaching the program since 2013. His current research activities focus on design and fabrication of welded structures in high strength steels endowed by SSAB (Swedish Steel Company).

### **WELDING IN THE WORLD BEST 2019 PAPER AWARD**

Sponsored by the IIW

*In recognition of his outstanding research paper 'A analysis of fluid flows and solidification mechanisms during GTA welding by means of in situ observations'*



#### **Dr Alexis Chiocca**

During his last year at the Ecole Nationale Supérieure de Mécanique et des Microtechniques engineering school Dr Alexis Chiocca completed an internship at Ecole Polytechnique de Montréal. It was there that he first encountered welding. This experience encouraged him to continue in welding by completing a PhD at Laboratoire de Mécanique et Génie Civil in Montpellier focused on solidification and fluid flows during GTA welding. He then had the opportunity to spend two years performing welding research in the Yutz R&D platform of the French Institut de Soudure. He is currently a welding research engineer at ArcelorMittal Maizières Research Center in Metz, France.

### **HENRY GRANJON PRIZE**

CATEGORY B – Materials Behaviour and Weldability

Sponsored by the French Delegation

*In recognition of his outstanding research paper 'Effect of thermoplastic morphology on mechanical properties in laser-assisted joining of polyamide 6 with aluminum'*



#### **Dr Klaus Schricker**

Dr Klaus Schricker studied mechanical engineering at the Technische Universität Ilmenau, graduated in 2012 with the Master of Science degree and joined the Production Technology Group. Since 2016 he has been head of the laser material processing group and a lecturer. His focus is on laser beam welding and thermal joining of polymer-metal hybrid joints, addressing the interaction between process and materials. He completed his PhD thesis 'Characterization of the joining zone in laser-based joining of semi-crystalline polymer-metal composites' in 2018. He is author of 13 peer reviewed publications and a further 14 conference contributions in the field of laser materials processing and joining technology. He has been active for several years in the Technical Committee 6 (Beam Processes) of the German Welding Society (DVS) and in the IIW Commission C-XVI Polymer Joining and Adhesive Technology.

### **HENRY GRANJON PRIZE**

CATEGORY C – Design and Structural Integrity

Sponsored by the France Delegation

*In recognition of his outstanding research paper 'Heterogeneous creep deformation behavior of functionally graded transition Joints'*



#### **Dr Mohan Subramanian**

Dr Mohan Subramanian received his Bachelor of Metallurgical Engineering degree from PSG college of Technology, Coimbatore, India, and PhD in Engineering Science from the University of Tennessee, Knoxville, USA.

His primary research interests include welding and phase transformations in steel, weld joint design and process control, and in-situ localised deformation measurement studies.

His PhD research work was focused on improving the design life of Dissimilar Metal Welds used in power plant applications.

His PhD project was funded by the Nuclear Energy University Program (NEUP) of United States Department of Energy (DoE), and was carried out both at Oak Ridge National Laboratory (ORNL), and the University of Tennessee research facilities. He is currently working as a Research engineer at AK Steel's research and Innovation center in Middletown, Ohio, USA.

He is a member of American Metal Society (ASM International), and American Welding Society (AWS).