

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







At this Opening Ceremony of the 78th Annual Assembly and International Conference on Welding and Joining is honoring the winners of this year's prestigious IIW Awards and acknowledging their significant contributions to welding and joining around the world.

IIW Awards recognise a wide range of achievements such as outstanding technical accomplishments and contributions to IIW Working Units, illustrious careers in the industry or academia, contributions to global advancement and meritorious service to IIW.

At this 78th Annual Assembly and International Conference on Welding and Joining, IIW Annual Awards acknowledge not only people with outstanding accomplishments or technical achievements, illustrious careers or long and meritorious service to the IIW around the world, but also encourage promising young professionals who are our future industry and Institute leaders.

IIW is proud to promote and recognise distinction through its numerous prizes and awards, often sponsored by Member Societies. Many are named to pay tribute to eminent individuals who were founding fathers of IIW or champions of its global role, or made significant contributions to the development and implementation of scientific and technical advances in welding and allied processes.

It was 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 the exchange of knowledge and cooperation in a wide range of joining and related technologies.

Our heartiest congratulations go to the 78th Annual Assembly and International Conference on Welding and Joining winners whose achievements and professionalism, whether at the peak of the mountains or in the foothills, are outstanding examples of determination on the pathway to excellence.





Boian Alexandrov







YuMing Zhang



Satoru Asai



Xinyu Ren





Gustav Hultgren



Jochen W. Mußmann

Yue Cao



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More information about IIW's recognition of people is found at www.iiwelding.org

2025 AWARDS FOR CAREERS ACHIEVEMENTS AND CONTRIBUTIONS OF IIW



FELLOW OF THE IIW AWARD

Sponsored by 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

Boian Alexandrov

Dr. Boian Alexandrov received MSc in Materials Science and Engineering and PhD in Welding Engineering degrees from the Technical University of Sofia, Bulgaria, where he worked as Assistant and Associate Professor. In 2003 he joined the Welding Engineering Program of The Ohio State University on an NSF-NATO Fellowship. At OSU, he worked as Research Scientist and Research Associate Professor, and is currently Research Professor and Director of the OSU Center for Weldability Evaluation. He performs research on welding metallurgy, weldability, and printability of advanced alloys, and on computational process-microstructureproperty optimization in welding and additive manufacturing. He advises postdoctoral, graduate, and undergraduate students.

Patrick W. Hochanadel

Patrick W. Hochanadel, Ph.D. of Los Alamos National Laboratory received BS, MS and PhD degrees in Metallurgical and Materials Engineering from the Colorado School of Mines under the guidance of Professor Glen Edwards. He began working at LANL in 1997 as a Staff Scientist. Dr. Hochanadel has been involved with the International Institute of Welding (IIW) for more than 15 years and with the American Welding Society (AWS) for more than 25 years.

Hochanadel is Chair of Commission IV (Power Beam Processes) and has served as a US Delegate and Secretary of the commission for 15 years. He is the current Vice Chair of the American Council of IIW. He has been on the Editorial Board for Welding in the World since 2016 and a principal reviewer for the Welding Journal. He is a member of the AWS Technical Papers Committee, has co-authored numerous publications, and significantly contributed to the AWS Welding Handbook and ASM Metals Handbook for electron beam and laser beam welding chapters as well as metals and their weldability. He is the current chapter chair for AWS Welding Handbook Electron Beam Welding and Laser Beam Welding chapters.

Dr. Hochanadel is past chair of the AWS Committee on High Energy Beam Welding and Cutting; its subcommittee for electron beam welding; its subcommittee for laser beam welding; and its subcommittee for laser hybrid welding. He was elected Fellow of AWS in 2022 and has received the 2018 Arthur Smith Award from IIW, the 2018 R.D. Thomas Award from AWS, the 2019 International Meritorious Certificate Award from AWS, and the 2021 McKay-Helm Award from AWS.







EVGENY PATON AWARD

Sponsored by the Ukrainian E.O. Paton Electric Welding Institute

Recognizes individual who has made a significant contribution to science and technology through his lifetime dedication to «applied research and development in the field of advanced technologies, materials and equipment for welding and allied processes



YuMing Zhang

YuMing Zhang, Endowed Boyd Professor in Electrical Engineering, has been with the University of Kentucky, USA since 1991 conducting welding research. He received BS, MS, and PhD degrees all from Harbin Institute of Technology, Harbin, China. His research has brought him 12 US patents, 1 European patent, over 200 journal publications, and recognition including University Research Professor, Dean's Award for Excellence in Research, and Fellow of AWS, ASME, SME, IEEE, AAIA, and AIIA. He is also the Major Professor for 8 Granjon winners and recipient of awards from AWS, SME, IEEE, IFAC and The Institution of Mechanical Engineers (United Kingdom). 2025 AWARDS FOR CAREERS ACHIEVEMENTS AND CONTRIBUTIONS OF IIW

ARTHUR SMITH AWARD

Sponsored by the UK 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

Satoru Asai

Prof. Asai, after earning his bachelor's and master's degrees from Osaka University, joined Toshiba Corporation in 1980, where he worked on the development of welding technology for power plant equipment. Based on his achievements, he obtained a doctorate in engineering from Osaka University. Later, in 2015, he became a professor in the Department of Materials Manufacturing Science at the Graduate School of Engineering, Osaka University, and is currently a specially appointed professor at the Joining and Welding Research Institute, Osaka University. Through Toshiba Corporation and Osaka University, he has consistently worked on developing sensing systems related to welding automation systems and researching in-process monitoring technologies for welding quality. Since 1998, Prof. Asai has actively participated in IIW Annual Assemblies, presenting numerous papers at the IIW Annual Assembly, He served as the chairman of Sub-commission C of Commission XII from 2007 to 2018, became the Acting Chairman of Commission XII in 2017, and served as the Chairman of Commission XII from 2018 to 2023. Furthermore, since 2018, he has represented Japan at IAB-WGB. Through these efforts, Prof. Asai has made significant contributions to IIW by promoting international research and technical exchanges in the field of welding processes.





YOSHIAKI ARATA AWARD

Sponsored by the Japanese Delegation

Recognizes individual who has realized extraordinary achievements in fundamental research in welding science and technology and its allied areas, which have been recognized as significant contributions to the progress of welding engineering and related fields



Fumiyoshi Minami

Fumiyoshi Minami was appointed as an assistant professor at Osaka University after getting master's degree in Welding Engineering from Osaka University in 1980. He received a Doctor of Engineering in 1985, became an associate professor in 1990, and was promoted to a full professor in 2002. From 2017 to 2019, he served as the director of Joining & Welding Research Institute Osaka University. Currently he is a professor emeritus Osaka University.

Prof. Minam has made outstanding achievements in the fracture assessment of steel structures based on welding mechanics and fracture mechanics. He dedicated to national and international standardization of a procedure for preventing unstable fracture in welded structures. His noteworthy implementation is found in the constraint-based assessment of fracture, designated as ISO 27306: Method of Constraint Loss Correction of CTOD Fracture Toughness for Fracture Assessment of Steel Components. Prof. Minami served as the president of the Japan Welding Society 2016-18 along with a director of the Japan Welding Engineering Society since 2016. He has made distinguished contribution to IIW activities as Chair of Com. X, Structural Performance of Welded Joints – Fracture Avoidance 2012-21, as a TMB member 2014-17 and as a member of Board of Directors 2015-18.

2025 AWARDS FOR CAREERS ACHIEVEMENTS AND CONTRIBUTIONS OF IIW



THOMAS MEDAL Sponsored by AWS



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

Jochen W. Mußmann

Jochen W. Mußmann studied Mechanical Engineering in Germany followed by qualifications as International Welding Engineer (IWE) and International Welding Inspector. Subsequently to that, for more than 20 years he served as the Responsible Welding Coordinator and Head of Quality Management in a company active in the field of industrial pipeline- and pressure vessel engineering in both the Processand Chemical Industry.



From the very beginning Jochen's dedicated passion, however, lies in dealing with and actively participating in national and international welding standardization. He serves on the national German Institute for Standardization (DIN)/German Welding Society (DVS) Joint Committee for Quality Assurance in Welding for almost forty years since 1986 and became elected Chairman of this committee on March 8th, 2007; three years before being appointed Chairman of the European CEN/TC 121/SC 4 and – internationally – ISO/TC 44/SC 10. Nationally, European, and internationally, Jochen Mußmann is chairing these committees uncontradicted to the highest degree of success and with unsurpassed acceptance from his fellow committee members. In addition, Jochen was serving as the Chair of CEN/TC 121 Welding and Allied Processes and became member of the ISO/TC 44/JAG IIW – ISO/TC 44 – CEN/TC 121 Coordination Committee, in charge of coordinating the standardization work among CEN, ISO, and the International Institute of Welding (IIW).

He is the German Delegate of ISO/TC 44 Welding and Allied Processes and the International Subcommittee (SC) 11 on Personnel Qualification, various international Working Groups, and SC 10 on Quality Management in the Field of Welding, represented on the IIW by its Technical Commission C-XVIII.

Jochen played a major role in developing and influencing crucially important standards such as the International Welder Qualification (ISO 9606-1), Welding Procedure Qualifications (ISO 15614 series), Quality Requirements for Welding (ISO 3834 part 1 through 6), Quality Requirements for Heat Treatment (ISO 17663), and Calibration, Verification and Validation of Equipment including Complementary Activities used in Welding (ISO 17662).

Jochen W. Mußmann received the DVS ring of honor by having distinguished himself through his restless work and achievements in the technical-scientific field and having rendered outstanding services to this association. Finally, in addition to the aforementioned, Jochen is also known and, according to the feedback gained from his students, highly appreciated as a Lecturer on Materials, Welding, Testing, Heat Treatment and Quality Management in Steam Boiler-, Vessel- and Pipeline Construction in the Welding Industry.

That to accomplish, he holds lectureships for Welding at the German University of Applied Sciences in Düsseldorf, at the Technical University Mittelhessen for Welding and Joining Technology, and at Germany's Training and Education facilities (GSI SLVs and SLs) for training and education of welding personnel.





CHRIS SMALLBONE AWARD

Sponsored by the Member Societies of Bulgaria, Romania, Greece and Serbia

Conferred on an outstanding individual who has made a significant contribution to improve the global quality of life through optimum use and innovation of welding and joining technologies in their region and internationally



Michail Karpenko

Dr Michail Karpenko is an International Welding Engineer (IWE) with a career in research, training, certification, and industry development. Born in Kiev, Ukraine, he earned his degree in Mechanical & Welding Engineering from Kiev Polytechnic Institute in 1995, followed by an International Welding Engineer's qualification from the prestigious Paton Welding Institute. His academic journey continued in Germany, where he completed a PhD in Engineering at Otto von Guericke University Magdeburg.

In 2006, Michail moved to New Zealand to manage the Welding Centre at the Heavy Engineering Research Association (HERA). As General Manager of Welding Centre and HERA Certifications Ltd , he has led transformative initiatives in training, certification, research, and industry development, significantly enhancing New Zealand's National Welding Capability.

Michail has represented New Zealand in the International Institute of Welding (IIW) since 2006 and served as an IIW Director (2017-2020). He has played a key role in IIW certification programmes, enabling New Zealand to develop globally recognised welding qualifications.

His expertise spans welding technology, quality assurance, and structural integrity, with over 80 published research papers.

He has made a significant contribution to standards development, seismic research, and technology transfer, strengthening New Zealand's infrastructure resilience. Under his leadership, HERA has launched a number of research programmes, including seismic-resistant welding technologies.

Michail played a key role in the development and implementation of the New Zealand Steel Fabrication Certification Scheme (SFC), which is based on IIW MCS ISO 3834. It now ensures that over 90% of the country's structural steel output is produced by certified fabricators.

Through his work, Michail continues to drive innovation, education, and global cooperation, reinforcing quality, safety, and sustainability in the welding and fabrication industries worldwide.



HENRY GRANJON CAT. A AWARD

Sponsored by the French Delegation CATEGORY A: Joining and Fabrication Technology



In recognition of his outstanding research paper "Heat input control in In-Service Welding Using Alternating Current Pulsed GMAW"



Kaue C. Riffel

Dr. Kaue C. Riffel is a Mechanical Engineer and researcher in the Welding Engineering Program at The Ohio State University (OSU), working within the Edison Joining Technology Center. He holds a Ph.D. with a focus on welding processes, earned through a collaboration between the Federal University of Santa Catarina (UFSC), Brazil, and the OSU. Dr. Kaue has extensive experience in arc welding processes, metallurgy, and simulation, covering areas such as waveform development, joining of advanced materials, wire-arc additive manufacturing, artificial intelligence for robotic programming, scanning electron microscopy, electron backscattered diffraction, finite element analysis (FEA), and CALPHAD. At OSU, he leads engineering teams and manages R&D projects to develop innovative welding and additive manufacturing solutions for industries including aerospace, nuclear, oil and gas, naval, automotive, and energy generation.



HENRY GRANJON CAT. B AWARD

Sponsored by the French Delegation CATEGORY B: Materials Behaviour and Weldability

In recognition of his outstanding research paper "Interfacial microstructure and joining characteristics of brazed and diffusion bonded joints of NbSS/Nb5Si3 composite"



Xinyu Ren

Dr. Xinyu Ren is a senior engineer in the Welding and Plastic Forming Division in Beijing Institute of Aeronautical Materials (BIAM), China. He received the bachelor and master degree from Tianjin University, majored in Welding and Joining. Then he achieved PhD degree in Materials Science and Engineering from BIAM in 2020. He focuses on developing novel filler alloys through the understanding of metallurgical behaviour for the brazing and diffusion bonding of superalloys, intermetallics and dissimilar materials.





HENRY GRANJON CAT. C AWARD

Sponsored by the French Delegation CATEGORY C: Design and Structural Integrity

In recognition of his outstanding research paper "Digitalised quality inspection of welded joints for fatigue assessment and post-weld treatment"



Gustav Hultgren

Gustav Hultgren is a post-doctoral Researcher at KTH Royal Institute of Technology in Sweden, working in the Division of Material and Structural Mechanics. His research focuses on quality and uncertainty aspects in fatigue-loaded welded structures, as well as probabilistic modelling and experimental methods in fatigue and fracture mechanics. He has been actively involved in standardisation efforts, including national initiatives to develop recommendations for digital visual inspection of weld quality, enabling advanced inspection methods in welding production. Additionally, he has contributed to the development of the proposal for the extension of EN 1993-1-12, addressing fracture toughness properties of welded highstrength steel structures. Within IIW, he serves as both a national delegate and an active participant in subcommission activities within Commission XIII (Fatigue of Welded Components and Structures).



HENRY GRANJON CAT. D AWARD

Sponsored by the French Delegation CATEGORY D: Human Related Subjects

In recognition of his outstanding research paper "Control of DE-GMAW through Human-Robot Collaboration"



Yue Cao

Yue Cao is a PhD candidate in Electrical Engineering at the University of Kentucky. He holds a Bachelor's degree in Material Forming and Control Engineering and a Master's degree in Material Processing Engineering from Tianjin University. His research focuses on developing intelligent robotic systems for complex welding processes, integrating human-robot collaboration to enhance process monitoring and adaptive control. Yue has contributed to research publications in this field and was awarded the A. F. Davis Silver Medal in 2024.

HALIL KAYA GEDIK AWARD

Sponsored by the Turkish Delegation



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

V. Balasubramanian



Dr.V.Balasubramanianis working currently as Professor of Manufacturing Engineering and Director, Centre for Materials Joining & Research (CEMAJOR), Faculty of Engineering & Technology, Annamalai University, India. He graduated (Mechanical Engineering) from Government College of Engineering (GCE), Salem, University of Madras in 1989 and obtained his M.E (Production Engineering) from College of Engineering Guindy (CEG), Anna University, Chennai in 1992. He obtained his Ph.D (Welding Engineering) from Indian Institute of Technology Madras (IITM), Chennai in 2000.

He has 32 years of teaching experience and 27 years of research experience. His areas of research interest are: Materials Joining, Surface Engineering and Processing of Advanced Materials. He has published more than 475 papers in SCOPUS indexed Journals and his current 'h' index is: 65. He has supervised 30 Ph.D scholars in total under direct guidance and guiding 5 more Ph.D scholars. He has completed 45 R&D projects worth of Rs. 20 crores from various funding agencies and implementing another 5 R&D projects worth of Rs. 10.0 crores. He was ranked in the "Top 2% Scientists in the World" and "9th Ranked in the Materials" field in India (Ranked by Stanford University, USA) in 2020, 2021, 2022, 2023 and 2024 (five consecutive years). He has visited countries like Singapore, Hong Kong, Canada and USA for paper presentations. He has presented more than 100 research papers in the National and International Conferences, Seminars and Workshops.

He has delivered more than 100 Invited Lectures, Keynote Lectures, Expert Lectures in various institutions and industries. He has organized more than 50 programs such as Conferences, Seminars, Workshops, Symposiums, Webinars and Faculty Development Programs (FDP) for the benefit of scientific community. He is the Chairman of Indian Institute of Welding (IIW-INDIA), Chennai Branch since July 2022. During his tenure as Chairman, he has inaugurated IIW Students Chapters in 10 Engineering Colleges and by this more than 500 Students have become Members of IIW-INDIA during last 2023-2025.





WELDING IN THE WORLD BEST PAPER AWARD

Sponsored by the IIW

Category A: Welding Processes and Additive Manufacturing In recognition of his outstanding research paper 'Heat input control in horizontal lap joint welding through active wire preheating in GMAW-P'



Fernando Scotti

Fernando Scotti holds a master's and a bachelor's degree in mechanical engineering from the Federal University of Uberlândia, Brazil. He began his career in welding as a research assistant at the university, contributing to studies on arc welding processes, wire arc additive manufacturing, and metallurgy. Currently, he works as a development engineer at Linde's research center for welding and plasma processes in Unterschleißheim, where he is responsible for developing new products and providing technical support in related fields. He is particularly enthusiastic about advancements in welding technology.

Category B: Materials and Metallurgy In recognition of his outstanding research paper 'Characteristics of high-temperature heat-affected zones in duplex stainless steels'



Sten Wessman

Dr. Sten Wessman has been a researcher at Swerim, a metals research institute in Stockholm, Sweden, since 1995, while also lecturing part-time at University West in Trollhättan. His key research areas include computational thermodynamics, focusing on Thermo-Calc and DICTRA software, as well as stainless steels, with an emphasis on duplex stainless steels. He earned his M.Sc. in materials science from KTH Royal Institute of Technology in 1995, followed by an International Welding Engineer (IWE) certification in 2009. In 2013, he completed his Ph.D. at KTH, specializing in computational thermodynamics with a dissertation on the applications of thermodynamic and kinetic modeling in stainless steel transformations. In addition to his engineering background, Dr. Wessman holds a B.A. in German literature from Stockholm University, awarded in 2000.



Elin Marianne Westin

Dr. Elin Marianne Westin earned her M.Sc. in mechanical engineering from Luleå University of Technology in Sweden. She also holds an international welding engineer certificate and a Ph.D. in materials science from the Royal Institute of Technology, KTH, in Stockholm. From 2002 to 2010, she led welding research on duplex alloys at Outokumpu Stainless. Since 2011, she has been with voestalpine Böhler Welding—first as a global product manager for high-alloyed flux-cored wires and covered electrodes, and now as a specialist in global R&D for cored wires. Dr. Westin currently chairs IIW Commission IX-H on the welding of stainless steel and nickel alloys and has published 27 papers in Welding in the World to date.



Category C: Welding Design and Fitness-for-Purpose In recognition of his outstanding research paper 'Fatigue life evaluation of welded joints under multiaxial loading for different stress concepts using an extended Gough Pollard criterion'

Niklas M. Bauer

Niklas M. Bauer graduated from Technical University Darmstadt with a Master of Science in Mechanical Engineering and Business Administration. In 2022, he joined the Fraunhofer Institute for Structural Durability and System Reliability LBF in Darmstadt, Germany, where he is responsible for both research and industrial projects on the fatigue of welded joints. As a doctoral candidate at the Technical University Darmstadt, his research focuses on the fatigue life assessment of welded joints under multiaxial loading, while employing machine learning and explainable artificial intelligence to investigate the effects of complex loading scenarios.



UGO GUERRERA PRIZE Sponsored by the Italian Institute of Welding



Kévin Affari

Kévin Affari is a specialist in Wire Arc Additive Manufacturing (WAAM), currently technical head of MX3D robotic metal 3D printing company in Amsterdam, The Netherlands. With his engineering degree in Material Sciences from Polytech Nantes (France), an International Welding Engineer (IWE) certification and more than eight years of experience in the field of additive manufacturing, Kévin brings a strong mix of manufacturing skills, metallurgic expertise and forward-thinking innovation. His work covers in-depth R&D, advanced manufacturing, and the industrial qualification of parts, procedures and systems at MX3D.







THE YOUNG PROFESSIONAL INTERNATIONAL CONFERENCE ONLINE 2025 Sponsored by IIW

In recognition of his outstanding overwork: "Interlayer deposition methodologies to inhibit the growth of intermetallic compound formation of AI-Fe resistance spot welds.



Ming Zhai

Obtained Ph.D. from Shandong University in 2023, supervisor: Prof. Wu Chuansong. Upon graduation, joined China Academy of Railway Sciences Co., Ltd. as a Research Assistant. Specializing in friction stir welding and processing, additive repair technology, numerical analysis, and machine learning. Leading research programs funded by the National Natural Science Foundation of China and China Academy of Railway Sciences Co., Ltd. Authored about 20 papers in journals such as J Magnes Alloy, J Manuf Process, Int J Heat Mass Tran, J Mater Res Technol, Sci Technol Weld Join.

In recognition of his outstanding overwork: "Elucidating the process mechanism in Mg/Al friction stir lap welding via machine learning and numerical analysis.



Rakhi Bawa

Educational background: Rakhi Bawa is a PhD student in Welding Engineering under Dr. Antonio J Ramirez at The Ohio State University in USA. She holds her B.S. in Engineering Physics also from OSU, completed in 2024. Bawa's research experience is in Resistance Spot Welding and Metal Additive Manufacturing—DED and LPBF. She has worked for two additive manufacturing companies as an intern—AddUp Inc. and Open Additive—where Bawa supported machine qualification and production efforts. Since beginning her graduate work, Bawa was awarded the SMART DoD Scholarship and will be interning at NSWC Carderock, where she will also begin employment in 2028 following the completion of her PhD. Bawa will work in the Materials and Manufacturing units at Carderock to bolster the R&D of the USA Navy.



A WORLD OF JOINING EXPERIENCE

Presented to

Carl-Gustaf Lindewald 30 years

Koji Azuma 20 years

Mathias Lundin 20 years

Elin Marianne Westin 20 years

Tetsuo Era 10 years

Carolin Fink 10 years

Staf Huysmans 10 years

IIW MISSION

To advance welding and joining through a worldwide network

IIW VISION

The leading global community linking industry, research and education to the advancement of welding and joining for a safer and sustainable world



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