INTERNATIONAL INSTITUTE OF WELDING

2024 ANNUAL REPORT

MESSAGE FROM THE PRESIDENT

PROF. THOMAS BÖLLINGHAUS
IIW President, 2023-2026

Dear Friends and Colleagues in the Science and the Art of Welding and Allied Processes,

starting my yearly message to you, it is my greatest honor and pleasure to thank you all for your continuous hard work, your unrivaled enthusiasm and, by especially welcoming our newcomers, your increasing interest in our IIW community. With my humbled acknowledgement to all of you, volunteers and professionals, may you contribute to our field in science, technology, administration, education or certification, I would like to take this opportunity to express my deepest gratitude. It is a true privilege to serve our worldwide network as your President. As this year is coming to an end, let me reflect just some of your major achievements we accomplished throughout the year 2024, when we really inhaled life into our strategy, by taking up most of the actions underlaying our five key-objectives

1. Improve IIW visibility through communication and marketing.
2. Expand the industrial relevance of IIW through research, best practices sharing, development and standardization activities.
3. Enrich the value of IIW to all stakeholders out of volunteers, member societies and industry.
4. Improve and expand our ETQ&C system to meet the needs of industry and IIW members.
5. Improve the organizational and management structure to ensure it meets IIW stakeholders expanding needs.

Starting within Key-objective 1, we increased our visibility immensely in new global regions that are currently emerging economically, especially on the African continent. The whole IIW is proud to have gained two more members from Africa: WeldNAM from Namibia and AIAT from Egypt, who were approved as new Responsible Member Societies during the General Assembly in July 2024. During the General Assembly also, it was agreed to reinstate the Libyan Advanced Center for Welding technology as the Responsible Member Society from Libya starting on 01 January 2025. Our major yearly event contributed massively and even evidenced our visibility: The Annual Assembly in Rhodes, Greece in July 2024 counted more than 1000 participants from 48 countries, including the even delegates from the two new member societies. Furthermore, and thanks to the continuous efforts of the secretariat, we further improved our website, simplifying the access not only for the IIW community, but also providing potential new members with much more information.

Regarding the Key-objective 2, the success and, especially, the scientific and technical depth of the contributions to our Annual Assembly 2024 made again evident that our organization stands at the international cutting edge of research, development and applicability of welding and allied processes. The increasingly large number of participants from industry shows the interest and the attraction to the work within IIW. Access to the latest research results has been further improved via our flagship journal Welding in the World, with over 200 papers published. Also, our journal gained again more visibility, documented by the increase in the Impact Factor up to 2.4 and a CiteScore up to 4.2 for the year 2023 (last data available), which are expected to continue their growth after the success in the current year. The Technical Management Board in close cooperation with the International Authorization Board is not only ascertaining that new and emerging technologies in our scope, all-in-front Additive Manufacturing and Artificial Intelligence, are taken up and incorporated into all IIW Commissions and be transferred to our education and training programs. Let me thank our network of volunteers for their outstanding results.

Following our strategic Key-objective 3, it was decided by the Board of Directors to establish a further Working Group Strategy and International Relationships. Under the current rapid changes in the world, the first major goal of the new working Group is to maintain an oversight of our 5-years Strategy 2023 to 2028 and to develop recommendations in case the overall Key Challenges, Needs or Key-objectives have to be adapted. The second major goal is to gain further insight into the needs of still in IIW underrepresented global regions, all in front Southern and Western Africa, which are experiencing in the mid of this decade a much faster industrialization and digitalization than on any other continent. Under the perspective that welding and allied processes are key technologies in industrialization and digitalization, let me emphasize my demand as your president to all of us: our whole IIW community should not only just view into such great perspectives and watch out for opportunities, but rather pro-actively participate in this exciting developments by connecting and embracing our network to these countries and support them in developing and becoming new member societies. To this respect, the WG Governance of the Board of Directors is working on a possible change of the IIW constitution to introduce the concept of Observer Member Societies to attract and guarantee a smooth and gentle intake of potential new member societies, especially from global regions where IIW is still underrepresented. Those changes will be presented to the members Societies and matter for a formal acceptance during an Extraordinary General Assembly to be held during the next IIW Annual Assembly. Be assured, these efforts will be paid back within the next decades by engaged and satisfied IIW Responsible Member Societies from the various countries dispatching and connecting many new excited and inspired experts in the field of welding and allied processes. For this, also, a new grant for IIW Young Professionals and Students has been opened to attract more the generations to come to participate in the IIW Annual Assemblies.

Within our Key-objective 4, we started to develop visual marketing tools which are particularly designed to explain the path for getting the IIW qualifications much better and by this, to attract more professionals to specialize in welding and allied processes. For the existing and incoming Authorized Nominated Bodies we seek to widen the regional representation of the IAB assessors and to reduce the auditing costs being often an obstacle especially in countries of underrepresented global regions, like in Africa and Asia. Remote assessment was introduced and the presence of auditors is now reduced to one person, and the costs to be covered by existing and potential ANBs and ANBCCs were calirified to include direct and indirect expenses. Finally, new scientific and technical items of strategic relevance are now included as standing topic in the IAB Agendas.

As a permanent item, the Board of Directors supported by the IIW Secretariat works intensively under the Key-objective 5 to continuously improve the organizational and management structure with the major goal to ensure that IIW properly takes care of the needs of stakeholders on the area of welding and allied processes, globally.. Especially for this purpose it was decided to disband WG Regional Activities and actually, to give a new format to this forum of all member societies and IIW stakeholder. Finally, the Welding Community Development Committee was created to improve the interaction within the global welding Community.

Let me add to this message my special thanks to the IIW CEO Luca Costa and the whole IIW Secretariat team that did a marvelous work in operating our global welding community and supporting our whole network in such a diligent, cooperative, professional and friendly manner. My special gratitude goes additionally to the entire Board of Directors for their wholehearted commitment, their tremendous work and immense support to the organization. Last but not least, I would like to express my heartfelt thanks to each and every one of you for your growing voluntary contributions to the numerous commissions and working groups within our organization. This network, our network, is the engine of IIW and it continues to gain power and momentum. This gives me great confidence that we will move forward at high speed towards new horizons, continually opening up fresh professional perspectives. The year 2025 promises to be not only an exciting one for me, as I eagerly anticipate the new inventions, applications, and innovations that will emerge from our community across the wide scientific and technical fields we work on.

I wish you all a peaceful and successful 2025, and I look forward to seeing, working, and serving alongside you as your President and as a part of our network – with my deepest respect.

Prof. Thomas Böllinghaus
IIW President 2023-20261

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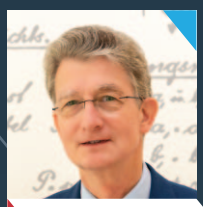
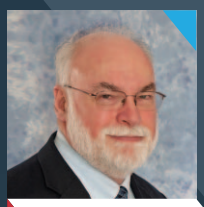
OUR PEOPLE

IIW BOARD OF DIRECTORS 2024/2025

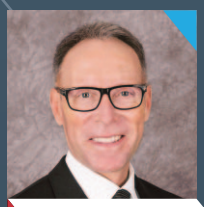


Prof. Thomas Böllinghaus
(Germany)
President

Prof. Srinivasan Ramachandran Iyer (India)
Vice-President

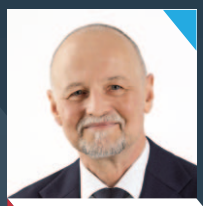


Mr Robert Shaw
(USA)
Vice-President



Mr Douglas Luciani
(Canada)
Past President

Dr Luca Costa
(Italy)
CEO

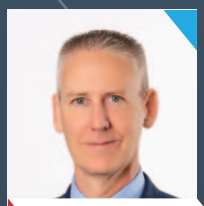


Dr Stephan Egerland
(Austria)
Treasurer

Dr Fernando Manas
(Spain)
IAB Chair

Prof. Xiaoyan Li
(China)
TMB Chair

Ms Susanne Baumgartner
(Austria)



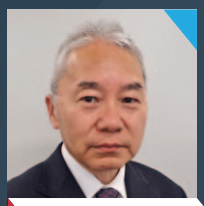
Mr John Gayler
(USA)

Prof. Paul Kah
(Sweden)

Ms Georgia Kolyva
(Greece)

Dr Jorg Vogelsang
(Germany)

Dr Zheng Sun
(Singapore)



Prof. Tomoyuki Ueyama
(Japan)

Dr Paul Woollin
(UK)

Prof. Hee Jin Kim
(Korea)

Dr Stefano Pinca
(Italy)

OUR PEOPLE

MANAGING THE ORGANISATION
IIW SECRETARIATS

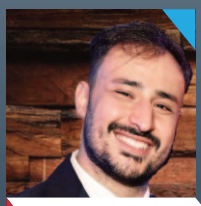
IIW has benefited from a prestigious history of secretariat services provided by Member Societies, from the early parallel roles of The Welding Institute UK as Administrative Secretariat and Institut de Soudure France as Technical Secretariat to 1995 when Institut de Soudure took on the combined role of General Secretariat. Since 2020 the General Secretariat role has been performed by Istituto Italiano della Saldatura in Genoa, Italy. Also in 2020, the service agreement for the management of the IIW International Authorisation Board (IAB) was renewed with the European Welding Federation (EWF) with the agreement updated to include services aligned with the needs of IIW and IAB members for the following five years. The IIW is grateful to the current and past secretariats for their outstanding work performed over more than 75 years of growth of the organisation, coupling continuity with the past with renewed energy in all enterprises. Personnel at the current secretariats aim to deliver world class service to the IIW community and support the organisation and its members as they face current and future challenges.

IIW SECRETARIAT

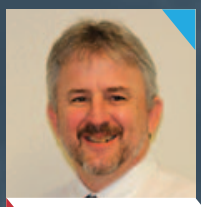
Dr Luca Costa
Chief Executive Officer

Dr Rosario Russo
Administrative, Coomunication and Events Management

Dr Elisabetta Sciaccaluga
Technical Manager



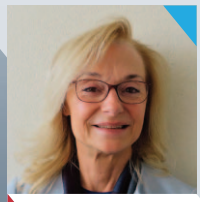
Dr Francesco De Fino
IT Management



Mr Andrew Davis
Standards Officier

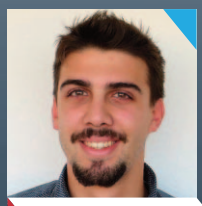
Mrs Erdmuthe Raufelder
Managing Editor

IAB MANAGEMENT TEAM

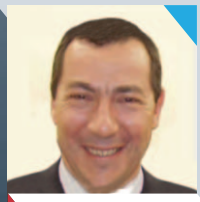


Eng. Rute Ferraz
IAB Chief Executive

Dr Eurico Assunção
IAB Deputy Chief Executive



Eng. Pedro Catarino
IAB Technical Officer



Eng. Italo Fernandes
IAB System Manager

Eng. Tobias Rosado
Deputy IAB System Manager

IIW ACCOUNTS 2024

TREASURER'S REPORT 2023/2024

Dear Members, Friends, and Supporters of the International Institute of Welding,

To have the most crucial point, probably being of the highest interest to you, clarified first. The association is in good financial shape. Based on the regrettable situation of still having the Russian Member Societies suspended, which we all sincerely hope may cease very soon again to welcome back our Russian friends and colleagues, we are still losing a considerable amount of membership fees for the organisation. However, based on profound analysis, we can forecast that the IIW will nonetheless succeed in balancing the fiscal year with a profit even of estimated € 27.000.

This is due to the financial success of the IIW Annual Assembly 2024 on Rhodes with more than 1000 registered participants attending, and, most particularly, also due to the efforts continuously devoted by our IIW Secretariat to have the IIW gaining participation in funded projects. This was most successfully achieved in 2024 by becoming part of two EU-funded projects to categorise under the European "ERASMUS" program. On behalf of the whole IIW community dare I warmly congratulate our CEO Dr Luca Costa and his entire team for their passionate competence in pursuing and successfully achieving that. Beyond all this. IIWs Working Group Finances, Audit and Risk (WG-FAR), for the most part, is meeting monthly online thoroughly to discuss topics both strategically and operationally. We are living in exciting times, especially politically, and although the IIW being an open and non-political organisation, it can hardly separate from these developments. Consequently, and without going too much into detail, as the association's Treasurer and Chairman of WG-FAR, I consider these monthly meetings mentioned highly needed. As for example, aiming at revealing additional streams of revenue can be found as a standing item on the WG-FAR agendas.

Not an easy task, as I'll have to openly confess, but worth collectively devoting time and effort to have the organisation in a safe financial position in order to allow for providing the best service to its members. I shall wish to underline, that it is a personal pleasure always to see my fellow WG-FAR members highly reliably attending the meetings actively to discuss, driven by the common spirit always to achieve the best for the IIW. This can be most pragmatically scaled in my opinion by the number of meaningful recommendations regularly achieved to be presented to the IIW Board of Directors, finally to gain their approval and having the decisions efficiently entering into force for the sake of the organisation. Before finishing this brief insight into the financial side of the association, please allow me to admit that I have found my opinion from before taking over as the IIW Treasurer safely confirmed. The actual treasure of the International Institute of Welding is you, the members, friends, and supporters of the organisation. Consequently, I consider myself privileged serving you as the treasurer to the best of my humble abilities. Having colleagues by my side, like the WG-FAR members, the IIW Secretariat, and, last but by no means the least, the IIW Board of Directors is more than helping me in this endeavour and another treasure in itself. With all that being said.

Thank you for your confidence and I greatly look forward to the 78th IIW Annual Assembly 2025 in Genoa, with a high number of strategic decisions also to be taken by you, the esteemed IIW Members. However, the most I look forward to, is meeting with you again in person, collectively to strive for IIWs success and underline that it is finally us, being the globally unique organisation when it comes to welding, joining, and allied technologies. I am sure, our Italian friends and hosts will literally excel in making the 78th IIW Annual Assembly 2025 an unforgettable event for all of us.

Yours very truly and I'll be seeing you next year in Genoa,

Dr Stephan Egerland
Treasurer, Austria

INCOME STATEMENT 2024

ITEM	REALISED
INCOME	
Membership fees	457999
Fees from IIW events (A.A.+ Congress)	108.583
Welding in the World	69.418
Royalties on IIW Recommended Practices and PS	0
Royalties on IAMQS	185
ISO Standards	0
Other incomes	19.734
Interest from bank accounts	3.354
TOTAL	**659.273**
EXPENDITURE	
Secretariat	519.994
Travelling expenses (for IIW Events since 2022)	59.489
Costs for IIW meetings and events (includes prizes, etc)	4.828
Office supplies (included computer maintenance until 2021)	2.907
Postage (included telephone costs until 2020)	10
Promotion, communication	19.531
Software (hosting & maintenance)	3.347
Audit fees and legal fees	9.500
Bank charges	1.187
Straight-line method of depreciation	6.130
Insurance	3.182
Registry Tax (formerly business tax)	1.377
Other charges	1.216
Extraordinary costs: transfer IIW to Italy	2.756
TOTAL	**635.454**
OPERATING RESULT	**23.819**
BAD DEBTS INVENTORY	
Bad debts recovered	
Allocation to fund for doubtful account (membership fees)	-10.000
Provision for doubtful account (VAT recovery)	
Recorded Irrecoverable debt	-34.447
Use of fund for doubtful accounts (membership fees)	34.447
TOTAL BAD DEBTS	**-10.000**
WELDING CHARITY FUND	
Allocation from IIW	0
Donations	11.097
Expenditures	-5.505
Use of IIW Charity fund	5.505
TOTAL IIW CHARITY FUND	**11.097**
NET RESULT BEFORE TAX	**13.818**
Income tax	-8.635
RESULT AFTER TAX	**5.183**

WELDING CHARITY FUND OF IIW

Robert E. Shaw
Jr. Chair, Welding Charity Fund of IIW
Vice-President, IIW

The Welding Charity Fund of IIW was started in 2021 under the leadership of IIW President David Landon, to support initiatives related to welding and allied activities within the objectives of the IIW.

The Welding Charity Fund of IIW is financially supported:

- directly by the IIW, based on the amount of revenues at the closing of the accounts for each year, as approved by the IIW General Assembly
- by IIW Member Societies, through donations to the Fund, and
- by businesses, organisations, and individuals wishing to support the Fund or the specific Grant programs of the Fund.

As announced at the 2024 General Assembly, three specific Grant programs have been established:

- IIW Young Professional and Student Grant
- IIW Welding Workforce Grant
- IIW Special Initiative Grant

IIW YOUNG PROFESSIONAL AND STUDENT GRANT

The purpose of the IIW Young Professional and Student Grant is to assist Young Professionals and Students in participating in an IIW Annual Assembly and International Conference, an Intermediate Meeting of an IIW Technical Commission, or an Intermediate Meeting of the IIW International Authorization Board. Applications for the IIW Young Professional and Student Grant were solicited in late 2024, with Grants to be issued in the first half of 2025 to attend the 78th Annual Assembly and Internation Conference.

IIW WELDING WORKFORCE GRANT

The purpose of the IIW Welding Workforce Grant is to expand and improve welding education and training programs, increasing the number of skilled and knowledgeable welders to meet the increased needs and demands of industry and infrastructure. The shortage of skilled welding personnel is well-documented and worldwide.

The Grant is to provide equipment, educational materials, and/or funding support for new and existing Welding Personnel Training Facilities. Grant funds can be requested and used for Welding or metalworking equipment, Upgrades to existing equipment, Virtual/augmented reality welding training equipment, Filler metals and other welding consumables, Personal protective equipment, Welding facility improvements, Textbooks and other teaching materials related to welding, and Classroom or laboratory materials and/or supplies. In-kind donations of such materials are generally welcomed. Awards from this Grant are in the planning stage for 2025.

IIW SPECIAL INITIATIVE GRANT

The purpose of an IIW Special Initiative Grant is to provide the financial support needed for organisations, activities, and other needs outside the ordinary operating budget of the IIW. Examples of Special Initiative Grants include but are not limited to: Financial support for one or more IIW Member Societies, Special IIW publications, Special IIW events or activities, and Financial support for non-budgeted administrative needs of IIW.

WELDING CHARITY FUND OF IIW

A Special Initiative Grant may be proposed by IIW Member Societies, other welding and joining-related organisations whether non-profit or for-profit, administrative working groups within the IIW, and by individuals. All Special Initiative Grant proposals must be approved by the IIW Board of Directors prior to initiation and acceptance of donations or contributions to support the Special Initiative.

The Welding Charity Fund was initially funded in 2022 with 23,000 € of IIW funds. That year, the Fund covered the subscription fees of 13,780 € for the E. O. Paton Welding Institute, the Member Society of Ukraine, for 2022 and the prior year. In 2023, Weld Australia donated 5,897 € for the purpose of covering the subscription fees for Ukraine, with an expenditure of 5,505 € for that purpose. Also in 2023, Prof. Hee-Jin Kim became the major individual donor to the Welding Charity Fund, giving 5,000 €. In 2024, Weld Australia again supported Ukraine with a donation of 5,956 €, with an expenditure of 5,731 €. In addition, Individual donations totaling over 6,000 € have been received as of early December 2024, with thanks to Hee-Jin Kim, 2,000 €, Tomo Ueyama, 1,000 €, and a matching grant of 3,100 € from Steel Structures Technology Center.

As of December 1, 2024, the Welding Charity Fund had 21,137 €, with several Grant expenditures planned for 2025. Formal plans for recognition of donors are currently being considered. All Grant applications are thoroughly reviewed by the Welding Charity Fund of IIW Committee, with recommendations forwarded to the IIW Board of Directors for their consideration and approval.

BALANCE SHEET AS OF 2 DECEMBER 2024

2022	Amount (€)	Description
Initial Funding (IIW)	23,000	from 2021 decision
Expenditures	13,780	Membership Ukraine 2022 and 2021
Balance	9,220	
2023		
Donations	5,897	Weld Australia
	5,000	Hee Jin Kim
	200	Anonymous
Expenditures	5,505	Membership Ukraine 2023
Balance	14,812	
2023		
Donations	5,956	Weld Australia
	2,000	Hee Jin Kim (undesignated)
	1,000	Tomo Ueyama (undesignated)
	3,100	Steel Structures Technology Center (matching)
Expenditures	5,731	Membership Ukraine 2024
Balance	21,137	

MESSAGE FROM THE CHAIR OF THE TECHNICAL MANAGEMENT BOARD

During the IIW week, held from July 7th to July 12th, 2024, over 1000 participants from various welding communities worldwide congregated on the renowned ancient island of Rhodes, Greece. The Greek Welding Institute, as the organizing body, successfully orchestrated the 77th IIW Annual Assembly and International Conference. This platform facilitated valuable exchanges of knowledge and experiences in the field of welding and joining, as well as the projection of future trends in welding development. Although the event has concluded, the remarkable memories continue to resonate within my mind.

In the span of a week, 18 technical commissions and a young professional event were held, along with an international conference titled "Energy Infrastructures and Transportations Across the Seas." These events featured numerous presentations from delegates, experts, observers, and individuals from 51 countries, all aimed at furthering the success of the IIW. As the chair of TMB, I would like to express my sincere gratitude to all attendees for their valuable contributions to the IIW community in terms of welding science and technology. I would also like to extend special thanks and congratulations to Dr. Stephan Egerland and Prof. Yuming Zhang for organizing the second IIW special event, which focused on AI manufacturing in welding and joining. The interesting new research findings presented at this event may contribute to a special edition of the IIW's flagship journal, Welding in the World.

After receiving approval from the IIW General Assembly, the establishment of the 19th technical commission focusing primarily on the physics of welding and joining is imminent. I am delighted to witness the growth of the IIW's technical domain and extend a warm welcome to you as you join this new technical commission. Your distinct expertise and contributions to this subject matter will be highly valued.

Due to the terms outlined in the code of service, several TMB members, including Dr. Jorge dos Santos and Dr. Majid Farajian, representatives of technical commission chairs, Dr. Kittichai Sojiphan, serving as chair of WG-YP, and Dr. Ghazal Moeini, representing WG-YP, have reached the end of their terms. I highly acknowledge and value their significant contributions to the TMB, which will not be forgotten. I sincerely hope that they will continue to contribute to the TMB in different capacities in the future. On a positive note, I am pleased to welcome Prof. Jolanta Janczak and Prof. Mitsuru Ohata to join the TMB as the new voting members and representatives of the commission chairs. Additionally, I am delighted to announce that Dr. Majid Farajian will remain in the TMB as the lead editor for Welding in the World, and Dr. Ghazal Moeini will continue to serve as the chair of WG-YP. I am excited about the opportunity to collaborate closely with all members to shape the TMB and ensure its promising future in the years to come. To enhance the performance of the technical commissions, a task group called TG-Eva was initiated and led by Professor Fumiyoshi Minami during the previous AA held in Rhodes. The objective of this task group is to develop effective tools that will assist the technical commissions in achieving their objectives. I extend my gratitude to Mr. Fernando Manas, the Chair of IAB, for his valuable support in initiating another task group aimed at fostering collaboration between TMB and IAB, specifically for the IIW ETQ&C system. I also thank Dr. Ghazal Moeini for assuming the role of chairperson for this group.

Reflecting on the delightful memories of the 77th IIW AA held in Rhodes, Greece, I am elated to observe the significant advancements achieved by the IIS-Istituto Italiano Della Saldatura in preparing for the upcoming 78th IIW AA in Genoa, Italy. The finalized theme for this esteemed international conference will revolve around "Hydrogen Applications and Energy Transition," while concurrently hosting the third IIW event dedicated to the utilization of Artificial Intelligence (AI) in welding manufacturing.

Being the Chair of TMB has been a valuable learning experience, not just in the realm of welding science and technology, but also in understanding the intricacies of human interaction. I would like to extend my heartfelt gratitude to each and every one of you and express my hope for your unwavering support in the coming years. I am eagerly anticipating the upcoming 78th IIW AA and am completely confident in its potential for even greater success. Looking forward to meeting all of you next June in Genoa.

Prof. Xiaoyan Li
Chairman of the Technical Management Board of the IIW, China

SPOTLIGHT ON NEW CHAIRS

Prof. Satoshi Yamane is an expert at "In-process Monitoring and Control in Welding System" and "health and Safety in Welding Filed". He received BE degree in Electrical Engineering, ME degree in Electronics Engineering from Tokushima University, JAPAN, and Dr.Eng. degree from Saitama University, JAPAN.
He worked at Maizuru College of Technology in 1986, as Research Associate. He began work at Department of Environmental System Engineering in Saitama University as Associate Professor since1995. His affiliation was changed to Department of Electrical Engineering, Electronics, and Applied Physics. He is chair of Japan Mirror Committee of IEC TC26 Electrical Welding , chair of Japan Mirror Committee of ISO TC44 Welding and allied processes, Japanese Delegate of IIW Commission VIII.
He is cooperating in the deliberations on international standards. He presents many research results about intelligent control of the welding robot using CMOS camera at IIW Commission XII.

Satoshi Yamane
(Japan)
Professor of Department of Electrical Engineering, Electronics and Applied Physics Saitama

Dr-Ing Majid Farajian
(Germany)
Head of Design and Construction - GSI Elected chair of Commission XIII

Dr.-Ing. Majid Farajian received his MSc. From the Royal Institute of Technology in Stockholm, Sweden and his PhD. at the Technical University of Braunschweig in Germany in the field of fatigue and structural integrity of welded components and structures.
After finishing his PhD in 2011 and working two years on his post-doc project at the technical University of Braunschweig, he began working at the Fraunhofer Institute for Mechanics of Materials IWM in 2013. As head of the group Fatigue at the Fraunhofer IWM and associate Lecturer at the Karlsruhe Institute of Technology KIT in Karlsruhe, Germany, he combined the industrial and basic research to bridge the academia and the industry in the fields of light weight constructions, materials joining, additive manufacturing and allied processes.
He joined the SLV of the German Welding Society (DVS) in 2020 and since then is the Head of Design and Construction of the SLV in Duisburg, Germany. His research results can be found in over 75 papers. In addition to his research activities, he works very closely with industry on product-oriented solutions.
He is a Member of the German Welding Society (DVS) as well as vice- chairman of the DVS FA9 Scientific-Technical expert committee on Construction and Design.
Dr.-Ing. Farajian is a long-time member of the IIW, member of the Technical Management Board TMB and the lead editor of the Journal Welding in the World.
He has been active in the IIW commissions related to structural integrity and fatigue since 2001 and is currently chair of the IIW Commission XIII Fatigue of Welded Components and Structures.

SPOTLIGHT ON NEW CHAIRS

Prof. Kyong-Ho Chang, Ph.D.
(Korea)
Elected chair of Commission XV

Department
Civil, Environmental and Plant Engineering, Chung-Ang University

High-level positions
Former President of the Korean Welding and Joining Society (KWJS), Former Chairman of the Korean Construction Joints Association (KCJA), Chairman of the Jeju Construction and Environment Forum (JCEF), Vice Chairman of the Seoul City Facility Safety Council, Representative of the Korean IIW delegation, Director of Korea Finance for Construction (KFINCO), Director of the Korea Construction Equipment Safety Institute (KCESI)

Training
Ph.D. in Civil Engineering: University of Osaka, 1998; M.S. in Civil Engineering: University of Osaka, 1996; B.S. in Civil Engineering: Chung-Ang University, 1988

Professional experience
Professor in the Department of Civil, Environmental and Plant Engineering, Chung-Ang University (1999-present), Visiting Scholar at the University of British Columbia (Civil Engineering), Canada (2007), Dean of the Graduate School of Construction (2014), Chairman of the Korean Construction Joints Association (2013-2015), President of the Korean Welding and Joining Society (2021), Vice Chairman of the Seoul City Facility Safety Council (2008-present), Chairman of the Jeju Construction and Environment Forum (2023-present).

Awards and recognition
Prize from the Minister for Trade, Industry and Energy, Award from the Metropolitan Government of Seoul

Recent publications and activities
Fatigue Life Comparieson of Tubular Joints in Tripod and Jacket Offshore Support Substructures Using 3D Fatigue FE Analysis - KSCE Journal of Civil Engineering - 2024.02, Comparison of fatigue life and crack initiation of tubular joints due to diference in the brace position - Welding In the World - 2024.05, Features of Mechanical Properties and Residu al Stress Distribution in Butt Joint of HSB690-SM355 Dissimilar Steel - International Journal of Steel Structures - 2024.06, Fatigue Life and Crack Initiation of K and N Type Jacket Structure using 3D Fatigue FE Analysis - Periodica Polytecnica Civil Engineering - 2024.06, Fatigue performance of bonding-assisted fillet weld roots by inserting adhesive material - Fatigue & Fracture of Engineering Materials & Structures - 2024.07, Fatigue Life and Crack Initiation in Monopile Foundation by Fatigue FE Analysis - Process - 2024.04, Comparison of stiffener effect on fatigue crack in KT-type pipe joint by FEA - WITW - 2022.09, Fatigue Life Evaluation of Tripod Ofshore Structure using 3D Fatigue FE Analysis - International Journal of Steel Structures - 2022.12, Fatigue analysis of cruciform welded joint with weld penetration defects - Engineering Failure Analysis - 2021.02

Activities related to IIW
Chairman of the Sub-Committee A (Analysis) of the Commission XV (2013-2024), Vice Chairman of the Organizing Committee for the IIW-2014 Annual Assembly in Seoul (2014).

Volunteer work in the Korean government
Member of the Design Review Committee for various ministries and authorities, including the Ministry of Land, Infrastructure and Transport, the Ministry of Oceans and Fisheries, and several other government and municipal organizations.

IIW
WORKING UNITS

C-I / ADDITIVE MANUFACTURING, SURFACING, AND THERMAL CUTTING
Mr Ing. Doug Kautz

Commission I had an excellent year with great participation at our meetings, both independent as C-I and as part of various intermediate meetings with other commissions.
These meetings included a special session on additive manufacturing preceding our general meeting at the Annual Assembly in Singapore, our typical joint meeting at the Annual Assembly with Commissions IV and XII and a very successful two-day meeting in Mundersbach, Germany hosted by EWM and DVS with Commissions IV and XII.
More and more as the Additive Manufacturing industry matures, the equipment sets allow for fabrication of much larger and more complex components. While this is true, there is still a lot of work on smaller AM products for more niche applications.
The movement towards standardization of these processes is moving along rapidly with support from many members of our Commission and using data from many of the Commissions of IIW. Our Commission has now added a vice-chair and has chairs for each of the three sub-commissions. We are happy that over the last several years that we have also reignited high quality technical papers in our other areas aside from AM.
Several papers have been presented and moved on to Welding in the World for both thermal cutting and surfacing applications. During the Annual Assembly in Greece this year, I plan to address vice-chairs for each of the sub-commissions, hopefully, finding young professionals in these areas with a desire to become part of our leadership.

C-II / ARC WELDING AND FILLER METALS
Dr Zhuyao Zhang

In 2024, Commission II continued to actively perform in fields of weld metallurgy, testing and measurements, and standardization of arc welding and filler metals. The Commission II held the intermediate meeting jointly with Commission IX in Incheon, Korea in March, and the 77th Annual Assembly in Rhodes Island, Greece in July.
A total of 38 technical documents were presented and discussed, of which, 11 were recommended for publication in Welding in the World. There were 11 papers published in 2024 Volume 66 of Welding in the World representing 6% of all the papers published in 2024, ranking 7th among 18 IIW Technical Commissions.
Commission II reviewed and confirmed for official issuing of two ISO standards, ISO 3690:2018, Welding and allied processes - Determination of hydrogen content in arc weld metal and ISO 8249:2018, Welding - Determination of Ferrite Number (FN) in austenitic and duplex ferritic-austenitic Cr-Ni stainless steel weld metals, and one ISO Technical Report, ISO/DTR: Welding - Best practices for specification and measurement of ferrite in stainless steel weld metal. At the 2024 Annual Assembly, Teresa Melfi was elected as the new Chair of Subcommission II-E, succeeding Dave Fink who had served diligently as the Chair of SC II-E for 17 years.
The commission has been coordinating the meetings and discussions closely with C-IX, which has been of great benefit to the members of both commissions who mostly have interests in topics such as material welding, filler metals, metallurgy and standardizations, etc. For year 2025, the intermediate meeting is scheduled for 10 – 12 March in Trollatan, Sweden.
Meeting is jointly jointly orginised with C-IX and will be held conjunction with the 5th International Conference on Cracking Phenomena in Welding and Additive Manufacturing 2025. It will be followed by the Annual Assembly in Genoa, Italy in June.

IIW
WORKING UNITS

C-III / RESISTANCE WELDING, SOLID STATE WELDING AND ALLIED JOINING PROCESS
Prof. Dr Ing. Hee Seock Chang

In 2024, Commission III accomplished two remarkable annual meetings. One is the Intermediate Meeting at the Edison Welding Institute: 27 presentations, 5 full-papers recommended for WITW publication, 39 in-person participants, 71 participants including on-line, participants came from 16 countries. The other is record-breaking achievement, the IIW 77th Annual Assembly C-III meeting: 56 presentations, 16 full-papers recommend for WITW publication, 4 consecutive full-day meeting for the first time of C-III history, 61 attendees on Sunday, 55 on Monday, 46 on Tuesday, 44 on Wednesday (206 man-days), participants came from 21 countries.

Commission III will host an Intermediate Meeting at the Technische Universität Dresden, Germany with special topics: Application of Machine Learning and Artificial Intelligence applied to C-III Processes. Date: Feb. 11~13, 2025. During the last two years, 2023~2024, Commission III gave spur to the research on of solid-state additive manufacturing and launched a new working group, C-III-A-WGA1, to propose destructive weld strength test standards for cylindrical battery used in Electric Vehicle. Also, Commission III put effort into the invitation of new C-III members.

Commission III plan to have a joint meeting with C-I for additive manufacturing and another joint meeting with C-V for NDT. There is no change in the leadership of Commission III.

C-IV / POWER BEAM PROCESSES
Dr Patrick W. Hochanadel

Commission IV allows scientists, engineers, and other technical personnel to discover and discuss rapid developments within electron beam, laser beam, and laser-hybrid welding, joining, and associated processes.

Commission IV continues its strong partnership with Commissions I and XII through the joint sessions both at the 77th Annual Assembly in Greece and at its Joint Intermediate Meeting in March 2024 in the United Kingdom. A new partnership with Commission VIII started because of the important topic of safety and quality of handheld laser welding.

This partnership has a Best Practices document expected in early 2025 as a joint commission document. Additionally, Commissions IV and VIII are working with the EWF and the AWS with representatives of both organizations as part of the discussion on handheld laser welding. Highlights of the 77th Annual Assembly include Mr. Max Nentwich (United Kingdom) was elected as Vice-Chair of Commission IV and nearly fifty (50) presentations made over four days of commission meetings.

Besides the new topic of handheld laser welding, continued advancement the power beam processes will be emphasized, such as in-situ and ex-situ process monitoring and evaluation, and novel laser welding processes (blue laser). An emphasis on the power beam processes in additive manufacturing will continue.

IIW
WORKING UNITS

C-V / NDT AND QUALITY ASSURANCE OF WELDED PRODUCTS
Prof. Dr Marc Kreutzbruck

Commission V oversees international standardization activities related to non-destructive testing (NDT) and evaluation of welded structures, with specialist groups focusing on radiographic, ultrasonic, electric/magnetic/optical, and reliability aspects.
NDT plays a crucial role in ensuring the integrity of components, especially in detecting material defects and assessing mechanical conditions without causing damage.
The commission emphasizes adapting to advancements in NDT techniques, with a current focus on preparing a new edition of the Ultrasonic Handbook for austenitic materials.
The transition from film-based radiography to digital detectors, led by sub-commission CV-A, highlights the importance of standardization in technological shifts. The trend in NDT is moving towards 3D imaging inspection, supported by methods like total focusing method (TFM), with Commission V experts contributing to ISO standards in this area. Additionally, the commission addresses structural health monitoring (SHM) and is involved in revising standards like ISO 18211 for Guided Wave Testing.

C-VI / TERMINOLOGY
Mr Jérôme Dietsch

Thanks to very active participation of its experts in the field of laser welding in 2024, IIW Commission VI has managed to finalise a draft standard for *"Laser welding – Terms and definitions"*, which will be further processed by ISO, the *International Organisation for Standardization*, and more precisely by its subcommittee *Representation and Terms in Welding and Allied Processes* (ISO/TC 44/SC 7). However, thanks to a very close collaboration between the two organisations, IIW experts will keep on being involved on this project, which will constitute a new part of the ISO 25901 series of standards.
Similarly, the draft for "*thermal joining of plastics*" has also reached maturity and is ready to be transferred to ISO/TC 61/SC 11 ("*Plastic products*"). The main topics to be covered during the next months are one new ongoing project on "*Thermal cutting – Terms and definitions*", and the revision of two existing parts of the ISO 25901 (part 1, "*General terms*" and part 4, "*Arc welding*". Commission VI will of course also remains open to all terminology-related matters that may arise in the other IIW technical commissions.

IIW WORKING UNITS

C-VII / MICROJOINING AND NANOJOINING
Prof. Dr Ing Jolanta Janczak-Rusch

Commission VII continued its efforts to strengthen the foundations of the relatively new, but rapidly growing microjoining and nanojoining technology. The intensive knowledge exchange and discussions between the international experts in the field, in particular around the topics of the three subcommissions (C-VII-A: Joining with nanomaterials, C-VII-B: Laser micro-/nano-joining, C-VII-C: Emerging micro-/nano-processing), contributed significantly to the growing progress in the field. The excellent presentations at the 77th annual Assembly in Rhodes highlighted the advancements in the areas of nanopaste-based joining techniques, (femtosecond) laser-assisted micro/nano joining and joining with reactive nanofoils.

The joint session with C-XVII (Brazing, Soldering and Diffusion Bonding) demonstrated the complementarities and synergies between "traditional" joining techniques - such as brazing, soldering or diffusion bonding - and joining processes based on nanomaterials (nanojoining processes), underlining the importance of collaboration between experts from the different fields. This expert dialogue continued during the Commission's intermediate meeting held in conjunction with the 2024 International Conference on Brazing, Diffusion Bonding and Micro-Nano Joining (BDB-MNJ 2024) in October in Hangzhou, China, under the support of the C-VII Honorary Chair, Prof. G. Zou.

While continuously reviewing the general technology trends in nanojoining techniques and heterogonous integration for micro- and nano-scale devices, the C-VII works intensively on developing first best practices in microjoining and nanojoining.

This should ensure industrial transfer and a wide use of these innovative joining processes in the future. The further strengthening of the exchange with other commissions, as well as the expansion of cooperation with industrial partners from various sectors, will remain at the forefront of the commissions' activities in the coming years.

C-VIII / HEALTH, SAFETY AND ENVIRONMENT
Mr David Werba

IIW C-VIII is an interdisciplinary network of experts that regularly reviews, exchanges and shares knowledge and general trends in international and national regulations, laws, and rules, and develops best practices that can affect Health, Safety, and the Environment regarding exposure to physical and chemical agents in welding.

Over the next year, focus will be on additional presentations by members and guests, review of health and safety training materials, and further focus on handheld laser welding safety and welding fume related discovery. Based on the discussions of the proliferation of handheld laser welding in the worldwide welding industry, the IIW International Advisory Board (IAB), C-VIII and C-IV Power Beam Processes along with the European Welding Federation (EWF) and the European Welding Association (EWA) have invited experts and professionals to actively participate in a working group on the use of handheld laser welding. As laser technologies continue to advance and the need for innovative, sustainable solutions grows, multidisciplinary collaboration is essential for developing guidelines, best practices, and qualification schemes that support the proper application of these advanced techniques.

The invite reached out to experts in engineering, welding technologies, occupational safety, environmental management, training, certification, and accreditation, as well as representatives from industry, academia, and research centers, to contribute to this important initiative.

IIW
WORKING UNITS

C-IX / BEHAVIOUR OF METALS SUBJECTED TO WELDING
Dr Hee Jin Kim

Commission IX (C-IX) maintains its goal to identify the relationship among the process, chemical composition, microstructure and the performance of welded joints made with metallic materials. Of special interests are the effects of chemistry and process variables on weld microstructures and defect formation, and the influence of the resultant microstructure on the properties of weldment.

In 2023, Commission IX conducted two very successful meetings: a face-to-face Intermediate Meeting jointly with C-II in the Republic of Korea and the Annual Assembly (AA) meeting in Greece. In AA meeting, 30 documents including 10 from the newly created IX-AM sub-Commission were presented reflecting a great interest in the area of AM metallurgy. A total of18 documents have been recommended for publication in Welding in the World.

However, sub-Commission IX-NF for Non-ferrous materials still remains to be less active with only one presentation in AA, so that in coming years, it is planned for IX-NF to identify the core area of interest from the members and industrial sectors. Finally, the current Chair of C-IX, Dr. Hee Jin Kim, was re-elected as the Chair for his last 3-year term. Prof. Peter Mayr was also elected for the first Chair of IX-AM. As AM becomes popular in other commissions, IX-AM will do a role in establishing a leadership for their cooperation in a productive way.

C-X / STRUCTURAL PERFORMANCES OF WELDED JOINTS - FRACTURE AVOIDANCE
Prof. Mitsuru Ohata

The activity of Commission X has focused on developing a practical guideline for Fitness-for-Service (FFS) assessment for welded components. The C-X FFS consists of specific subjects not covered by existing standards/guidelines, which operates as a "supplement".

The C-X FFS gives state-of-the-art knowledge, advice and/or recommendations on the structural performance assessment of welds with respect to avoidance of brittle, ductile, and environment-induced fracture. C-X advances the development of new assessment tools together with an expansion of FFS target and new, challenging, innovative research items; Artificial Intelligence (AI) / Machine Learning (ML) assisted assessment tools (Data-driven assessment), simulation-based design and structural integrity assessment tools (FEA-based Digital Twin). The WG named "Fracture Toughness Test at Cryogenic Temperature" has launched activities with a call for participants.

Moreover, a new sub-commission SC-AM named "Fracture Avoidance in Additively Manufactured Parts/ Components" was set up. C-X will activate collaborations with other commissions or WGs relevant to hydrogen-induced fracture assessment of steel structures and fracture assessment of AM parts/components.

IIW WORKING UNITS

C-XI / PRESSURE VESSELS, BOILERS AND PIPELINES
Prof. SuJun WU

C-XI has a very successful year of 07/2023-07/2024, with the 77th IIW AA and four successful Intermediate Meetings. During the 77th IIW AA held in Rhodes Greece in July, C-XI has had 2 full days and 1 afternoon sessions with 35 technical presentations. Day-1's session covered various topics including discussion on setup of sub-commissions and C-XI's ToR and future activities.

Day-2 has 4 sessions which covered "Performance of Welds for Hydrogen Services" and "High temperature pressure vessels, boilers and pipes" respectively, with technical presentations and a panel discussion on a Draft Standard for welded joints of hydrogen pipelines. Day-3 has 4 sessions which covered "Welding of PVBPs in Harsh Environments", "Welding processes", "Non-Metallic material pipes", and "Testing and inspections", respectively. The SC-XI-E Intermediate Meeting held at Equans, Grimbergen, Belgium in June, several topics were discussed on various matters. Representatives from pipeline owners, laying companies, class societies, equipment/consumable/materials suppliers, and RTOs and consultancy firms attended.

The SC-XI-NM Intermediate Meeting held at SPIC in Beijing in March, experts and professionals from various countries in the field of Non-metallic material pipes presented 18 papers, covering the welding and joining, NDT inspection, safety assessment and service life prediction of welded nonmetallic pipes.

Possible standards for nonmetallic welds were discussed. The SC-XI-HT Intermediate Meeting was held at Tianjin University in April. 15 papers were presented to discuss the latest advances in the field of high-temperature pressure vessels and pipelines.

SC-XI-HE Intermediate Meeting was held at Shandong University in May.

20 high-level reports were presented in this conference. Experts shared their latest research results and actively exchanged ideas in a wide range of cutting-edge fields, such as underwater wet or dry welding technology and processes, space welding, nuclear pressure vessel welding and related processes, and welding technology at extremely low temperatures. C-XI is always open and ready to jointly work with other commissions on relevant topics.

C-XII / ARC WELDING PROCESSES AND PRODUCTION SYSTEMS
Prof. Satoshi Yamane

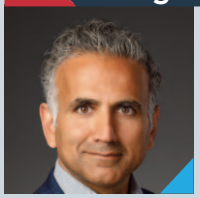
Commission XII highlighted the research and development of arc welding process to various fabrication fields based on fundamental issues of arc physics and the production systems for various industry sectors to realize low cost production with high quality. Many excellent papers presented at Commission XII were spread worldwide as a good practice and published in Welding in the World.

The recent notable topics in Commission XII include intelligent robotic and autonomous welding system with visual sensors using Artificial Intelligence, in-process monitoring system for weld defects, and the research on 3D modeling and numerical simulation for molten pool behavior and droplet transfer phenomenon for wire arc additive manufacturing. As future plans, new Commission XIX, which covers physics of welding, will be established from next year. Sub commission F, physics of welding, disbanded.

Artificial Intelligence and Wire Arc Additive Manufacturing technologies for the quality control and smart welding will be focused on contribute to the realization of innovative production using IoT, DX and Collaborative Robots. As a collaboration with other commissions, Commission XII has held a joint meeting of C-I, C-IV and C-XIX for technical exchange of the latest information on additive manufacturing, numerical simulation in physics of welding and welding processes every year in IIW annual assembly and Intermediate meeting.

IIW
WORKING UNITS

C-XIII / FATIGUE OF WELDED COMPONENTS AND STRUCTURES
Dr.-Ing. Majid Farajian



Commission XIII, established in 1951, focuses on addressing challenges related to the structural integrity of welded and additively manufactured components and structures under cyclic loading. The commission comprises several subcommissions dedicated to fatigue testing, fatigue improvement techniques, stress analysis, and mitigating the effects of residual stresses and weld imperfections on fatigue strength, and maintenance of structures among other areas.
It collaborates with industrial partners and research institutions globally to raise awareness of fatigue issues and develop assessment methods and innovative technologies. Industries benefiting from its work span aerospace, shipbuilding, infrastructure, automotive, and more.
Commission XIII has published numerous guidelines and standards highly relevant to the welding community, including recommendations for fatigue design and assessment, methods for improving fatigue strength, and best practices for statistical analysis of fatigue results.
Currently, it is developing new guidelines for challenging design and life extension scenarios, such as retrofitting engineering for fatigue-damaged steel bridge structures. Commission XIII meetings are extensive, often lasting four days, due to the presentation of high-quality papers and documents. It has been a leading contributor to the International Journal of Materials Joining Welding in the World and recommends numerous research and engineering papers for publication each year.

C-XIV / EDUCATION AND TRAINING
Mr Carl Peters

Commission XIV, Education and Training, prepares its members for emerging challenges by discussing new technologies and new training methods. From a technology standpoint, there is a focus on digital training, including the use of AR and VR, intelligent manufacturing, and new qualification & certification programs.
From a human resources standpoint, there is a focus on attracting the next generation to the welding industry, engaging Young Professionals, and preparing educators for the changing classroom challenges. In addition, an increasing focus is being placed on industry involvement that includes the sharing of best practices from around the world. Commission XIV recently addressed best practices in advanced learning through presentations from multiple cutting-edge universities representing different regions of the world. Also, new technologies for improved teaching for both industry and academics were introduced.
A new sub commission on Attracting the Next Generation to Science, Technology and Industry was formed giving members the opportunity to engage with their concerns and suggestions. Safety is always important so there was a presentation on Establishing and Effective Safety Program.
New topics being considered are new safety challenges such as laser safety, improving educator understanding of learning theory, and best practices on improving the image of welding.

IIW
WORKING UNITS

C-XV / DESIGN, ANALYSIS, AND FABRICATION OF WELDED STRUCTURES
Prof. Kyong-Ho Chang

Commission XV covers all welded steel structures, including civil engineering, buildings, plants, energy, marine, Planar Structures, and tubular steel structures. Commission XV discusses various issues, from the analysis, design, and fabrication of welded structures to the evaluation of structures (maintenance, repair reinforcement methods, soundness assessment, fatigue assessment, and economic analysis). Commission XV is organized into six sub-commissions covering different technical aspects and applications of welded structures. It arranges two technical meetings each year: an intermediate meeting and an AA meeting.

The next intermediate meeting will be held in a hybrid style. It will be held in Kumamoto, Japan, on February 26th,2025, in parallel with the online meeting. Commission XV aims to promote the exchange of information and the harmonization of national standards related to welded structures. Additionally, it contributes to the development of ISO standards in this field. Commission XV also maintains a joint working group on fatigue issues in welded structures in cooperation with Commission XIII and holds joint meetings to exchange relevant information.

Commission XV will also collaborate with other IIW commissions on related areas. The following areas were discussed at the AA: There were a variety of topics, the most innovative being: Automation and Monitoring, Friction Stir Processing, Aluminum Alloy Joint, Structural optimization, FEM, AI-Driven Simulation, Residual Life Assessment, Pressure Vessels and Piping Systems.

The next plan is to create a WG (sub-commission) that will lead the field related to C-XV by leveraging new AI technologies and collaborating with other committees involved.

C-XVI / POLYMER JOINING AND ADHESIVE TECHNOLOGY
Prof. Dr Sergio Amancio

Commission XVI's strategy is dedicated to advancing adhesives, joining, welding, and additive manufacturing of polymers, composites, and hybrid materials (e.g., metal-polymer, and wood-polymer). These innovations are essential for developing next-generation lightweight and sustainable structures.

The recent commission's focus on joining and additive manufacturing of hybrid materials has gained significant recognition within the international welding and joining community. For the first time in IIW history, a C-XVI member received both the Yoshiaki Arata Award (2023) for scientific excellence and the Halil Gedik Award (2024) for industrial impact.

The 2024 Annual Meeting in Rhodes highlighted significant advances in polymer welding, additive manufacturing, adhesive bonding, and hybrid joining techniques.

A renewed interest in the mechanical fastening of industrial polymers was evident through dedicated presentations. Additionally, a special technical session on adhesive bonding standardization brought experts together to discuss emerging trends and the development of new standards across various materials.

IIW WORKING UNITS

C-XVII / BRAZING, SOLDERING AND DIFFUSION BONDING
Dr Huaping Xiong

The goals of C-XVII are to advance the technologies of Brazing, Soldering and Diffusion Bonding and to gradually reach higher levels of research and productivity for a friendly and sustainable world, by share of the pioneer and basic research results, recent research achievements and even the practice experiences, as well as those technical difficulties and problems to be solved. In 2024 we had not only commission meetings during the 77th IIW Annual Assembly in July in Rhodes but also an intermediate meeting in Oct. in Hangzhou, China.
Furthermore, there are the following changes in the commission leadership after the election at the IIW-AA: new vice chairman of C-XVII, Dr. Lukas Wojarski from Dortmund University of Technology, Germany, new chair of XVIIA (Brazing), Prof. Peng He from Harbin Institute of Technology, China, and new vice chair of XVIIA (Brazing), Dr. Zhenzhen Yu from Colorado School of Mines, USA.
Within C-XVII we had the 3 most innovative topics dealt with in the last two years: High Entropy Alloy Brazing Materials, Ceramic Joining and Special Joining Processes. C-XVII will continue to attract young professionals and the people with industrial background to participate in commission activities.
Besides, it will continue the collaboration with C-VII and C-XVIII for discussing common topics and developing industry documents and standards.

C-XVIII / QUALITY MANAGEMENT IN WELDING AND ALLIED PROCESSES
Mr Robert Shaw

Commission XVIII works to identify, create, develop, and transfer global best practices in the field of quality management for welding and allied processes, focusing on quality management systems and the qualifications for personnel and companies involved in welding and allied processes. As an interdisciplinary body for the IIW, it works with other Commissions to develop industry documents and standards for use by technical experts, quality managers, and production personnel. Commission XVIII recently completed "IIW Recommendations and Best Practices for Welding Inspection - Tasks and Responsibilities" and "IIW Recommendations and Best Practices for Welding Coordination to ISO 14731 - Tasks and Responsibilities".
It manages ISO 22688 "Brazing - Quality requirements for brazing of metallic materials" in collaboration with Commission XVII. New topics under consideration include management of intelligent manufacturing, artificial intelligence, and machine learning; adhesive (structural) bonding; auditing guidelines; and guidelines on the inspection of steel structures.
C-XVIII will continue its work to improve existing qualification standards and guidelines for welding personnel and for companies, with a careful eye for the needs of new joining processes and new developments in existing processes. This work also supports the work being done within the IIW International Authorization Board (IAB) and other organizations.

SHARING WITH PEERS

WORKING GROUP YOUNG PROFESSIONALS

Greetings to all members of the International Institute of Welding (IIW),

Reflecting on my inspiring journey as Chair of the Working Group-Young Professionals (WG-YP) since July 2024, I'm delighted by the outstanding team we've built in the Young Professionals Steering Committee (YPSC). Together, we're passionately dedicated to empowering young professionals and nurturing the future leaders of the IIW community.

I would like to express my deepest gratitude to my WG-YPSC team for their tireless commitment and dedication. A special acknowledgment goes to Tamas Toth from Germany, who is poised to succeed me as the Chair of WG-YP following the IIW Annual Assembly in Genova this July 2025.

Additionally, I am deeply thankful to Dr. Rosario Russo and Dr. Francesco De Fino from the IIW Secretariat. Their steadfast support since the July 2023 Annual Assembly in Singapore has been instrumental in our preparations for the second Online Young Professionals International Conference (YPIC), scheduled for 6th-7th February 2025. This virtual event provides an extraordinary platform for young professionals and students globally to showcase their research, share academic and industrial insights, and become integral to the IIW YP network.

I urge all member societies to spread the word about YPIC 2025 Online, encouraging participation from your local young professionals and students. This is a remarkable opportunity for them to connect and collaborate on a global scale.

Looking ahead, we aspire to forge stronger partnerships with technical commissions and member societies, enabling us to host more Young Professional events across diverse countries and regions. I am incredibly grateful to the IIW for the privilege of serving as a TMB member and WG-YP Chair during this transformative journey. It has truly enriched my life, and I am eager to continue contributing to the IIW in whatever capacity I can in the future.

I invite all member societies to explore new avenues of support for young professionals and students, motivating them to engage with YPIC Online and participate in the Young Professional Meeting during the IIW Annual Assembly. Let us come together to inspire and cultivate the next generation of leaders in welding and joining.

Join us on this exciting path to "Join to the Future" and shape a thriving professional journey within the IIW community. Together, we can make a lasting impact!

With passion and anticipation,

Prof. Dr.-Ing. Ghazal Moeini, IWE
Chair, IIW Working Group Young Professionals

SHARING WITH PEERS

WORKING GROUP STANDARDISATION

For all kinds of human activities, standards are precious and powerful tools to harmonize practices, to establish common benchmarks that ensure products, services, and processes meet appropriate requirements, ensuring their reliability and compliance with given expectations. In a globalized context, they facilitate international exchanges, by providing a common framework even between countries that may have to cope with different regulations.

Standards are also crucial for the protection of the general population, as they help prevent risks related to defective or dangerous products. In manufacturing, they contribute to efficient resource management and cost reduction by streamlining industrial processes. They also promote innovation by guiding companies toward advanced technological solutions while ensuring compatibility with existing products. Lastly, standards help companies improve their competitiveness, reduce the risk of litigation, and ensure better transparency and traceability of products throughout their lifecycle.

For all these reasons, the IIW has from its early years always played a very significant role in the production of standards in the field of welding and allied processes, and has developed a strong and fruitful collaboration with ISO (the International Organisation for Standardization) allowing its experts to develop international standards, dealing for example with consumables, solid-state joining processes, non-destructive testing of welds, terminology, health and Safety, fatigue performance of welded structures or quality management.

Current projects cover friction-stir welding of ferrous materials, eddy current array testing, and the terminology used in various areas of material joining and processing.

Mr Jérôme Dietsch
(France)

LEARNING
INTERNATIONAL AUTHORISATION BOARD

MESSAGE OF IAB CHAIR AND CEO

Mr Fernando Mañas
(Spain) ***Chair***

In 2024 the IAB network met to continue the technical work being developed in IAB Groups A and B, Education, Training and Qualification and Implementation, Authorization and Certification, respectively. Strategic actions related to IAB governance, and the promotion and marketing of the System were also discussed in in IAB Board. These meetings were held online during the IIW winter meetings and presential in July during the IIW Annual Assembly that took place in Rhodes, Greece.

Additionally, during 2024 the IAB Chair attended the TMB meetings to explore new ways of closer cooperation between both bodies and a Task Group IAB&TMB called TG TMIA has been stablished to try to look for synergies.

In a fast-moving and evolving industry, the IIW International Authorisation Board (IAB) continued to make progress towards an effective system to support the welding industry in education and training of its workforce. The goal is to deliver the necessary knowledge and skills for personnel and companies. The IAB accomplishes this goal by identifying, developing, and implementing IIW Education, Training, Qualification and Certification System, worldwide.

In this regard, several guidelines and rules documents were reviewed and updated to fulfill Industry needs.

Mrs Rute Ferraz
(Portugal) ***IIW-IAB CEO***

In 2023, 7.250 Diplomas, 543 Personnel Certificates (new and renewals) and 631 Company Certificates (new and renewals) were issued.

These numbers show an overall increase of 6% of awarded diplomas and certificates when compared to 2022.

Cumulative, until the end of 2023, 190.732 Diplomas, 2.609 new Personnel Certificates (only new) and 3.211 Company Certificates (only new) have been issued.

A very positive aspect is the acceleration of the digital transformation/innovation that took place in the majority of the ANBs and ANBCCs.

For the near future, the challenge is focused on leveraging the implementation of the IIW Education, Training, Qualification and Certification System through the implementation of the IAB Operational Plan that includes several actions aiming at increasing the IIW ETQ&C Systems implementation, particularly in the Asia region.

To ensure the sustainability and stability of the IIW-IAB system, the continuous participation of all Members is essential in the search for new areas of activity, adapting to new market demands.

LEARNING
INTERNATIONAL AUTHORISATION BOARD

ROLES AND RESPONSIBILITIES: WHO IS DOING WHAT

GROUP A 'EDUCATION, TRAINING AND QUALIFICATION' IS RESPONSIBLE TO:

- Develop and revise the Qualification Guidelines, Alternative Route rules and requirements and deal with Blended Learning Programs;
- Develop and manage the harmonised examinations.

Approval of the IAB Guidelines is the responsibility of Group A.

GROUP B 'IMPLEMENTATION, AUTHORISATION AND CERTIFICATION' IS RESPONSIBLE TO:

- Develop, maintain, and revise the Rules and Operational Procedures for implementing the Qualification Guidelines and the Certification Systems;
- Grant and confirm authorisations of Authorised Nominated Bodies (ANBs) and Authorised Nominated Bodies for Company Certification (ANBCCs);
- Approve Access Conditions, Transition Arrangements and Blended Learning Programs;
- Appoint Assessors.

Approval of the IAB Rules and Operating procedures is the responsibility of Group B.
IAB Peer, Blended Learning and Lead Assessors are Experts of the IIW-IAB qualification and certification systems and are responsible for assessing ANBs and ANBCCs against the IIW-IAB Rules.

2024 HIGHLIGHTS FROM GROUP A
SCOPE: EDUCATION, TRAINING AND QUALIFICATION

In 2024, Group A focused on enhancing training standards, green skills integration, and the continued development of examination protocols in welding qualifications. Key activities included:

- Conducting an analysis on incorporating green skills into the welder training curriculum to align with sustainability goals.
- Approving a new revision of the Welding Inspector guideline, scheduled for implementation across 2025 and 2026.
- Progressing on the development of harmonized practical and theoretical examinations for the International Welding Inspector qualification, ensuring consistent standards globally.
- Reviewing and integrating ISO 29994 requirements for distance learning within IIW training courses to support high-quality, remote educational options.
- Publishing the Alternative Route Welding Coordination and Welding Inspector training programs, broadening access to these qualifications.

Mr Horia Dascau (Romania)
IIW-IAB Group A Chair

2024 HIGHLIGHTS FROM GROUP B
SCOPE: IMPLEMENTATION, AUTHORISATION AND CERTIFICATION

In 2024, Group B made significant strides in strengthening the certification framework for welding professionals. Highlights include:

- Approval of the Welding Inspectors Certification System, with implementation to begin following the recognition of the system by the Accreditation Body in Italy.
- Appointing a new Lead Assessor for IIW Qualification and Certification Systems and nominating two additional Peer Assessors to support assessment processes.
- Initiating the issuance of digital diplomas by IAB Members, with the goal of phasing out paper diplomas in alignment with sustainable practices.

Mr Stefano Morra (Italy)
IIW-IAB Group B Chair

IAMQS

EWF and IIW continue cooperating in the implementation, promotion, and development of the International Additive Manufacturing Qualification System (IAMQS)

In 2024 the system grow in number of countries worldwide, with the Japan Welding Engineering Society (JWES) authorised to implement the IAMQS!

- United Kingdom
- France
- Portugal
- Germany
- Spain
- Italy
- Greece
- Turkey
- Malaysia
- Japan

The **IAMQS - International Additive Manufacturing Qualification System** was created by industry and for industry to ensure that companies and professionals are equipped with the right set of skills to **implement Additive Manufacturing at the industrial level**. The IAMQS is also based on the engagement with various AM stakeholders operating in the global market, in close connection with **Standards requirements** and with the **support of EU funds**. As a result, IAMQS guidelines are now officially referenced in international standards, specifically in the ISO/ASTM 52926 series for the qualification of AM Operators and in the ISO/ASTM 52935 standard for the qualification of AM Coordination Personnel. These inclusions mark an important step in establishing IAMQS's frameworks as globally recognized standards, reinforcing its role in setting industry-wide benchmarks for AM personnel qualifications.

IAMQS took part in several strategic events to promote its qualification system and expand its influence in the field of AM. One notable event was the **EDA AM Village Workshop**, which was held in May 2024. This workshop focused on the development of a specialized AM training program aimed at the AM Defence sector, highlighting IAMQS's commitment to providing industry-relevant training solutions for emerging needs.

Another participation was at the **WorldSkills** event in Lyon in September 2024, where young professionals with practical, high-demand competencies in the AM sector, received IAMQS training before the event, focusing in AM Design. IAMQS expanded its course offerings in 2024 to meet the growing global demand for qualified AM professionals. CESOL, a leading organization in Spain, introduced a specialized course for AM Coordinators. This new course adds to the IAMQS framework, aligning with international industry requirements and enhancing the options available for professionals seeking AM training.

The 1st international harmonised qualification system in AM is managed by **EWF** and has also been supported by the **International Institute of Welding (IIW)** with the objective of creating **a global network of qualification and training institutions across the world**. IAMQS currently offers **12 Qualifications** in Additive Manufacturing, and more than **70 short courses** defined in Competence Units.
In 2025, IAMQS will initiate the implementation of the Certification System for AM Operators based on the ISO/ASTM 52926 series, launch pilot courses on AM training, increasing the training offer to include a broader variety of training in AM, as well expanding the countries where IAMQS is implemented.
For more information please visit: **https://www.ewf.be/qualification/iamqs.aspx**

2025/26 IIW AND ASSOCIATED EVENTS

FUTURE IIW EVENTS

6-7 February 2025
ONLINE
2nd YOUNG PROFESSIONAL INTERNATIONAL CONFERENCE (YPIC 2025)

12-14 March, 2025
TROLLHÄTTAN, SWEDEN
5th INTERNATIONAL CONFERENCE ON CRACKING PHENOMENA IN WELDING AND ADDITIVE MANUFACTURING

17-19 September, 2025
ESSEN, GERMANY
INTERNATIONAL WELDERS COMPETITION

September/November 2025
BEIJING, CHINA
13th ARC CUP INTERNATIONAL WELDING COMPETITION 2025

22-27 June, 2025
GENOA, ITALY
78th IIW ANNUAL ASSEMBLY

1-3 December, 2025
HONG KONG
19th INTERNATIONAL SYMPOSIUM ON TUBULAR STRUCTURES (ISTS19)

12-17 July, 2026
SALZBURG, AUSTRIA
79th IIW ANNUAL ASSEMBLY

PAST REGIONAL AND INTERNATIONAL EVENTS

22-24 January 2024
BANGALORE, INDIA
INTERNATIONAL CONGRESS (IC-2024)

8-9 February 2024
ONLINE
1st YOUNG PROFESSIONAL INTERNATIONAL CONFERENCE (YPIC 2024)

8-9 May 2024
BUDAPEST, HUNGARY
JOIN TRANS 2024

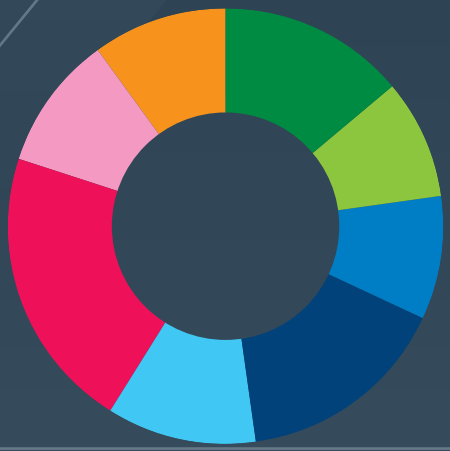
7-10 October 2024
KYIV, UKRAINE
WELDING AND RELATED TECHNOLOGIES 2024

22-30 October 2024
BEIJING, CHINA
12th ARC CUP INTERNATIONAL WELDING COMPETITION 2024

21-22 November 2024
ISTANBUL, TURKEY
WAM 2024

WELDING IN THE WORLD
ANNUAL REPORT 2024

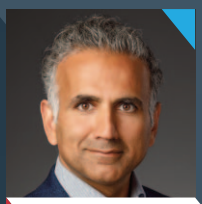
In 2024, Volume 68 of **Welding in the World** published 220 papers and over 3300 pages of fundamental and applied research associated with materials joining, additive manufacturing, and allied technologies.
The distribution of papers published in 2024, arranged by Technology Area, is shown in the accompanying figure.



TECHNOLOGY AREAS

Additive Manufacting	14%
Arc Welding Processes	9%
Brazing and Soldering	9%
Design and Fitness-for-Service	16%
High Energy Density Processes	11%
Metallurgy and Materials	21%
Solid-State Process	10%
Other	10%

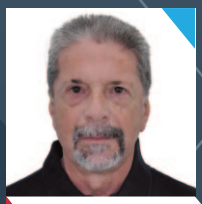
EDITORS IN CHIEF



Dr-Ing Majid Farajian
(Germany)
Lead Editor

Prof. Thomas Kannengiesser
(Germany)

Prof. Norbert Enzinger
(Austria)



Prof. Américo Scotti
(Brazil)

The journal continues to publish papers in a wide range of technological areas associated with both welding and joining of materials, and additive manufacturing. Since 2023 the IIW has been organizing a symposium on Intelligent Welding Manufacturing (IWM), which has taken place at the last two IIW Annual Assemblies in 2023 and 2024. This symposium is dedicated to the advancements in key technologies for future intelligent/smart, robotic, and automated welding manufacturing. The journal supports the IWM symposium by printing the selected papers in topical collections.
The first topical collection on Intelligent Welding Manufacturing was published in April 2024, which included a selection of the papers of the 1st symposium. Another topical collection on this subject is going to be published next year, representing the 2nd IWM symposium which took place in July 2024.

Key Performance Indicators (2023 value)	Change from 2022	Change from 2023
Number of paper decisions (585)	15%	29%
Number of papers published (210)	13%	13%
Number of pages published (2847)	7%	17%
Full text Downloads (345,052)	38%	60%
Royalties paid by Springer (44,418 Euro - 2023)	23%	3%
SCI Impact Factor (2.4)	14%	21%
Total Cites (3506)	8%	58%
CiteScore (4.2)	11%	20%
Average days to 1st decision (43)	-2%	-39%
Average days to online publication (154)	-7%	-23%

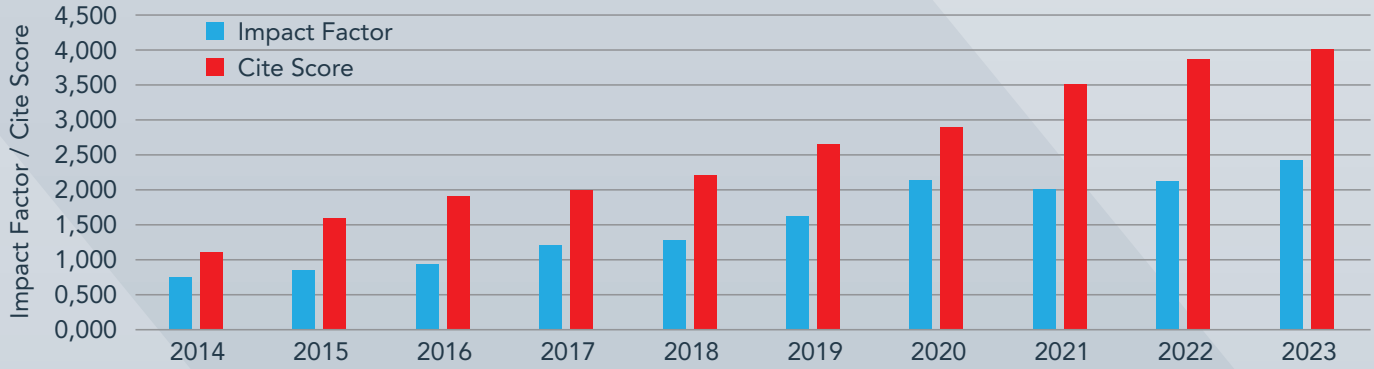
WELDING IN THE WORLD - Publication and Performance Data

WitW Data	2018	2019	2020	2021	2022	2023	2024
Recommended papers from IIW Commissions	135	156	82	93	143	127	153
Total Decisions	443	477	580	455	510	585	>615
Papers published	120	160	179	186	186	210	220
Pages published	1350	1900	2170	2440	2670	2847	3315
Total Cites	829	939	1,556	2,319	3,255	3,506	>3,508*
Cite Score	2.2	2.6	2.9	3.5	3.8	4,2	
Full Text Downloads	83,651	111,022	154,897	216,101	250,200	345,052	390,378*
SCI Impact Factor	1,278	1,589	2,103	1,984	2.1	2,4	2,8

* as of November 2024

Over 750 papers were submitted to the journal in 2024. The acceptance rate was 36% and the average time to first decision was less than 40 days. Also, the average time from paper submission to online publication for Volume 68 was 158 days with over 60% of papers published in less than 150 days. IIW commissions recommended 153 papers during 2024. As shown in the accompanying table, the journal performance continues to increase based on both Impact Factor (IF) and CiteScore, with an anticipated IF of 2.8 expected for 2024. The number of full text downloads again increased dramatically in 2023 to over 345,000, up 38% from 2022. It is projected that the number of full-text downloads will increase to around 400,000 in 2024.

WELDING IN THE WORLD 2014-2023



Professor Norbert Enzinger who started as an interim Editor in November 2023 is now part of the editor team. His areas of expertise are welding metallurgy and mechanical performance of welded structures, steel metallurgy, and friction stir welding.

The Editorial Board consists now of 46 members spanning the range of technology topics published in the journal. This group has been critical in assisting the Editors with the pre-screening of open submission papers and the overall execution of the peer review process. There are now over 400 active Principal Reviewers and Reviewers for WitW. The members of the Editorial Board are listed in the accompanying table. The Editors wish to thank all who contribute to the continued success of the journal including authors, working unit chairs and co-chairs, principal reviewers and members of the review panel, the Editorial Board, the IIW Secretariat, and the support staff at Springer. The remarkable progress in the growth and impact of the journal would not have been possible without this support structure.

WELDING IN THE WORLD EDITORIAL BOARD, DECEMBER 2023

1. Shaju Albert (India)
2. Jorg Baumgartner (Germany)
3. Jean-Pierre Bergmann (Germany)
4. Amitava De (India)
5. Stephan Egerland (Austria)
6. Carolin Fink (USA)
7. David Grewell (USA)
8. Jonas Hensel (Germany)
9. Yoshinori Hirata (Japan)
10. Pat Hochanadel (USA)
11. Jörg Baumgartner (Germany)
12. Jean-Pierre Bergmann (Germany)
13. Amitava De (India)
14. Thomas Dupuy (France)
15. Erika Hodulova (Slovakia)
16. Simon Jahn (Germany)
17. Doug Kautz (USA)
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34. Volker Schoeppner (Germany)
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37. Murali Tumuluru (USA)
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44. YuMing Zhang (USA)
45. Zhuyao Zhang (United Kingdom)
46. Guisheng Zou (China)

77TH IIW ANNUAL ASSEMBLY AND INTERNATIONAL CONFERENCE

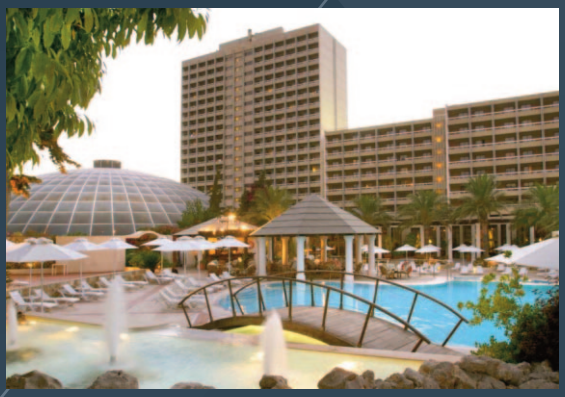
RHODES 2024

RHODES HOSTED THE 77TH IIW ANNUAL ASSEMBLY AND INTERNATIONAL CONFERENCE ON WELDING AND JOINING, 7 TO 12 JULY 2024

The last years have strengthened the relationships of the IIW community to continue its relentless work, leading to the great success of this edition of the IIW Annual Assembly and International Conference on Welding and Joining in Rhodes, Greece, 07 to 12 July 2024, with more than 1000 attendees.

IN SUMMARY

- Meetings of IIW Commission and Groups took place 07-12 July 2024, with up to 18 sessions offered each day.
- The IIW International Conference titled "Energy infrastructures and Transportations across the seas" was held on 11 and 12 July with outstanding experts presenting the results of their scientific work and study, and 87 presentations and 17 posters presented.
- Social events included the IIW Opening and Awards Ceremony, the Young Professionals Ice Breaking event, the Welcome Reception, the Greek Evening, and the Closing Ceremony at the Gala Banquet.
- Sponsors met the welding professionals at the exhibition area, with videos, product presentations and displays.
- The IIW 2024 Digital Collection Welded Art Photographic Exhibition- Sustainable Development Goals (see IIW-2024-Digital-Collection-1-July-2024), was launched and shown throughout the event on the event application on a dedicated page.



The 77th Annual Assembly of the IIW and the International Welding and Joining Conference took place at the Rhodos Palace Hotel, Rhodes, Greece, July 7-12, 2024.

RUNNING THE EVENT

The 77th IIW Annual Assembly and International Conference was hosted by the local member society of IIW, the Greek Welding Society, supported by the IIW Secretariat and IAB Management Team. Registration started on 1st February 2024 and the conference centre was officially opened on 06 July, facilitating the participation of over 1000 people.

IIW General Assembly

Opening Ceremony

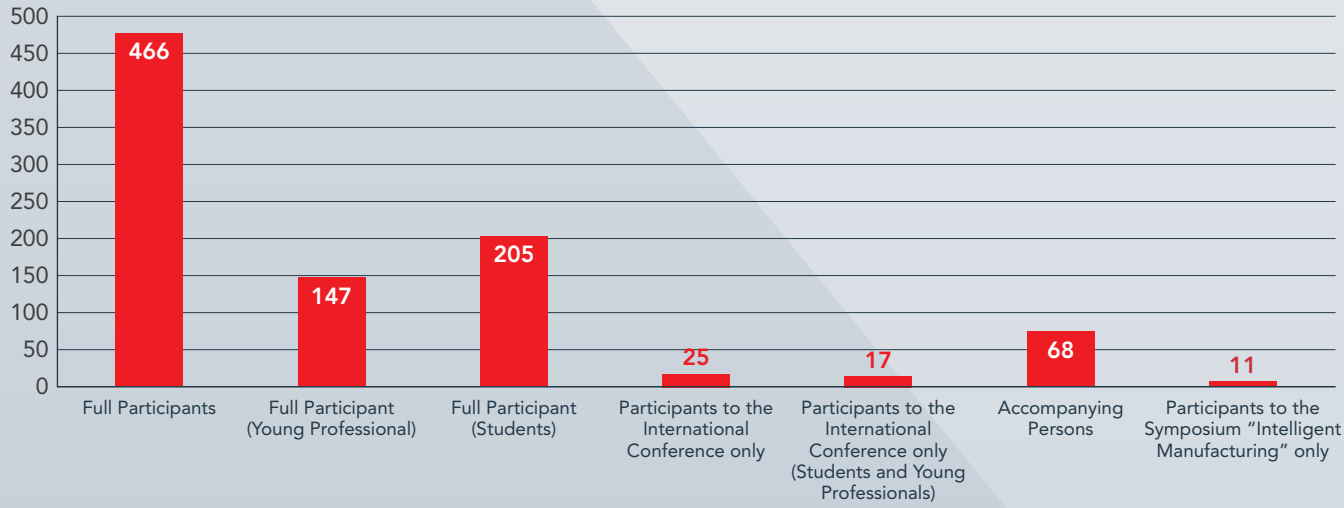
Young Professional Event

Greek Evening

77TH IIW ANNUAL ASSEMBLY AND INTERNATIONAL CONFERENCE

At the end of the event, IIW is proud to announce that the 77th Annual Assembly and International Conference on Welding and Joining has been a huge success with great participation globally and significant and prolific technical output.

IIW 2024 REGISTRATION STATISTICS



51 Countries were represented. According to the IIW Procedures, participants were grouped in delegations managed by the IIW member societies, the national welding organisations of IIW member countries.

PARTICIPANTS PER COUNTRY

COUNTRY	COUNT	COUNTRY	COUNT	COUNTRY	COUNT	COUNTRY	COUNT
Australia	9	Ghana	6	North Macedonia	1	Sweden	26
Austria	23	Greece	128	Norway	9	Switzerland	8
Belgium	9	Hungary	7	Palestine	2	Thailand	2
Brazil	8	India	15	Poland	11	The Netherlands	13
Bulgaria	2	Indonesia	4	Portugal	9	Turkey	10
Canada	23	Israel	1	Romania	2	Ukraine	15
China	132	Italy	22	Saudi Arabia	6	United Arab Emirates	1
Croatia	1	Japan	86	Serbia	2	United Kingdom	25
Czech Republic	6	Jordan	1	Singapore	7	United States	81
Denmark	4	Kuwait	1	Slovakia	7		
Egypt	2	Latvia	1	Slovenia	2		
Finland	28	Libya	1	South Africa	3		
France	22	Namibia	2	South Korea	68		
Germany	155	New Zealand	1	Spain	8		

IIW is grateful to the organizations that sponsored the event for their support.

SPONSOR
- EKME SA (Main Sponsor)
- SPECTRUMLAPS SA (Main Sponsor)
- KISWEL

EXHIBITOR
- ANIMA AE
- Cavitar Ltd.
- Meltio / DirectedMetal 3D SL
- P-Laser NV
- Pole EMC2
- Shimadzu Europa GmbH
- Structural Integrity Technologies Inc.
- CONIK AE

SUPPORTER
- MOTOR OIL HELLAS ΔΙΥΛΙΣΤΗΡΙΑ
- ΚΟΡΙΝΘΟΥ Α.Ε.
- DESFA SA

77TH IIW ANNUAL ASSEMBLY AND INTERNATIONAL CONFERENCE

PRESTIGIOUS AWARDS

During the Opening Ceremony of the 77th IIW Annual Assembly of the International Institute of Welding (IIW) IIW honored the winners of prestigious IIW Awards and acknowledged their contributions to welding and joining around the world.

IIW is proud to promote and recognize 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 organization to be recognized 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.

At this 77th IIW Annual Assembly, 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.

Heartiest congratulations go to the 77th IIW Annual Assembly 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.

• **Fellow of the IIW**	*awarded to* Károly Jármai, Patricio Mendez, Gerhard Posch, Volker Schöppner, Chuansong Wu and Yixiong Wu
• **Evgeny Paton Award**	*awarded to* Suck-Joo Na
• **Arthur Smith Award**	*awarded to* David Fink
• **Yoshiaki Arata Award**	*awarded to* Boian Alexandrov
• **Thomas Medal**	*awarded to* Teresa Melfi
• **Chris Smallbone Award**	*awarded to* Emmanuel Afrane Gyasi
• **Walter Edström Medal**	*awarded to* John C. Lippold
• **Henry Granjon cat. A Award**	*awarded to* Rui Yu
• **Henry Granjon cat. B Award**	*awarded to* Derek Shaffer
• **Henry Granjon cat. C Award**	*awarded to* Aravindh Nammalvar Raja
• **Halil Kaya Gedik Award**	*awarded to* Sergio Amancio
• **Welding in the World Best Paper award, Category A: Welding Processes and Additive Manufacturing**	*awarded to* Florian Muller
• **Welding in the World Best Paper, Category B: Materials and Metallurgy**	*awarded to* Nellikode Savyasachi
• **Welding in the World Best Paper, Category C: Structural Integrity, Design and Fitness for Service**	*awarded to* Kalle Lipiäinen
• **Andrè Leroy Prize**	*awarded to* Guy Brooks & Michael Pitt

77TH IIW ANNUAL ASSEMBLY AND INTERNATIONAL CONFERENCE

THE ARTISTIC SOUL OF WELDING 2024 DIGITAL COLLECTION

The 2024 welded art photographic exhibition resulted from the very successful initiative launched at the IIW Annual Assembly in 2019 in Bratislava, Slovakia. Since then, IIW already held five IIW Welded Art Photographic exhibitions in 2020, 2021, 2022, 2023 and 2024 as downloadable digital collections.
In 2024, the *Welded art Photographic exhibition Digital collection* has been linked with the Sustainable Development Goals (SDGs) developed by the United Nations (UN).
UN has 193 countries as members and with the challenges of improving the quality of life in countries, in 2015, world leaders agreed to the implementation of 17 Sustainable Development Goals (SDGs) aimed at low and middle-income countries. IIW has linked its National Welding Capability (NWC) Project and the SDGs so that strategies can be introduced by a country including implementing a Flagship Programme with a single global focus "To Assist the Country to Establish, Sustain and Improve Its National Welding Capability and Progress its UN Sustainable Development Goals". Such a Programme may have many initiatives and projects associated with it but all related to the single global focus. As such the IIW 2024 Digital Collection was developed with the cooperation and collaboration of artists and exhibits from several countries linking any masterpiece to SDGs. Further information and the full collection are available at **IIW-2024-Digital-Collection-1-July-2024**.

78TH IIW ANNUAL ASSEMBLY AND INTERNATIONAL CONFERENCE ON WELDING AND JOINING

IIW is looking forward to gathering the welding, joining and associated processes community together at upcoming Regional and International Congresses and Associated Events held in cooperation with its partners, and the 78th IIW Annual Assembly and International Conference on Welding and Joining which will take place **from 22nd to 27th June 2025 at Magazzini del Cotone (Genova, ITALY)**, Europe's leading destination for business, leisure and entertainment.

In 2025, the event will be held in conjunction with the Bi-annual meeting "National Welding days", organised by the Italian Institute of Welding (IIS - Istituto Italiano della Saldatura), gathering the Italian community of Welding and allied processes with participation that has been stably over 1000 individuals. With this joined event, the IIW and IIS are confident that any participation goal will be overcome.

The 78th Annual Assembly of the IIW and the International Welding and Joining Conference will take place at the Magazzini del Cotone, Genoa, ITALY, June 22-27, 2025.

RECOGNITION 2024 IIW AWARDS

HONOURING SIGNIFICANT CONTRIBUTIONS TO WELDING AND JOINING TECHNOLOGY AND THE INTERNATIONAL INSTITUTE OF WELDING

At this Opening Ceremony of the 77th 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 77th 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 77th 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.

FELLOW OF THE IIW AWARD *Sponsored by IIW*

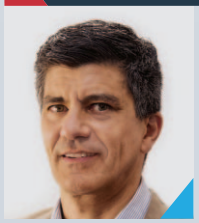
Recognises individuals with a minimum of 10 years' active participation in IIW who have made distinguished contributions to welding science and technology and promoted and sustained the professional stature of the field

KÁROLY JÁRMAI

Dr. Károly Jármai is a professor at the Faculty of Mechanical Engineering and Informatics at the University of Miskolc, Hungary, where he graduated as a mechanical engineer and received his doctorate (dr.univ.) in 1979. He teaches the design of steel structures, welded structures, composite structures, and optimization in Hungarian and English to foreign students. He wrote his CSc. (PhD) dissertation at the Hungarian Academy of Science in 1988, became a European Engineer (Eur. Ing. FEANI, Paris) in 1990 and got his habilitation (Dr. Habil.) at Miskolc in 1995. He became a doctor of technical science (DSc.) in 1995. He is the co-author of five books in English, Analysis and Optimum Design of Metal Structures, Economic Design of Metal Structures, Design and Optimization of Metal Structures, Optimum Design of Steel Structures, Optimization for Robot Modelling with MATLAB and six monographs and handbooks in Hungarian. He has published over 788 professional papers, lecture notes, textbook chapters and conference papers. He has about 1242 independent citations. He is a founding member of the International Society for Structural and Multidisciplinary Optimization (ISSMO). He has participated in the International Institute of Welding (IIW) activity since 1993 in Glasgow. He is a Hungarian delegate in the Annual Assembly, vice chairman of Commission XV and a subcommission chairman XV-F. He is a member of C-XIII and Regional Activities. He has organized several IIW-related international conferences since 1996. He was the vice-rector of the university between 2013 and 2017 in the field of strategy and research. He is an honorary doctor of the Technical University of Kosice, Slovakia.

RECOGNITION 2024 IIW AWARDS

PATRICIO MENDEZ



Prof Mendez is the Weldco/Industry Chair in Welding and Joining and Director of Canadian Centre for Welding and Joining at University of Alberta. His teaching and research focus on physics and mathematics of welding and materials processing. Applications include wear protection overlays, procedure development, laser cladding, and additive manufacturing. Before joining the University of Alberta, he was a professor at the Colorado School of Mines and a consulting engineer at Exponent Inc. In 1995 Dr. Mendez co-founded Semi-Solid Technologies Inc. in the US. Prof. Mendez holds a Ph.D. and a M.S. degree in Materials Engineering MIT, and a Mechanical Engineer degree from the University of Buenos Aires. Prof. Mendez holds a Ph.D. and a M.S. degree in Materials Engineering MIT, and a Mechanical Engineer degree from the University of Buenos Aires. His work is known for its depth into the physics and mathematics and has received numerous international awards and patents. His students are active leaders in the welding community worldwide.

GERHARD POSCH

Materials scientist Dr. Gerhard Posch began his welding career at Böhler Welding in 1999 and soon entered the world of IIW, where he has served as a delegate, as chairman of CII-C, chairman of CII, as a member of the TMB and as a member of the editorial board of Welding in the World. He has published over 40 papers and holds 3 patents. As Vice President at voestalpine Böhler Welding he currently focusses his activities in the area of digitization of welding knowledge and data management and also lectures at 3 Austrian universities welding technology.

VOLKER SCHÖPPNER

Prof. Schöppner is a german mechanical engineer with a degree from Paderborn University (1988) and phD from 1994. After some industrial positions with a machine manufacturer company and an automotive supplier company he joined the Paderborn Unversity as professor for polymer processing in 2007. In this area, his group is focussing on polymer welding and on extrusion technology. Most of the publications are looking to welding processes in automotive industry like hot-plate, laser, infrared and ultrasonic welding. From the very beginning of his professorship, he joins the commission XVI in IIW in the meeting at Dubrovnik. He was chairman of this commission from 2009 to 2017 and member of the technical management board of IIW 2011-2014.

CHUANSONG WU

Chuansong Wu, obtained his BS, MS and PhD degrees from Harbin Institute of Technology in 1982,1984 and 1988, respectively. He became a Full Professor at Harbin Institute of Technology in 1991. Since 1996, he has been a Full Professor of Shandong University. He has been active in IIW for over fifteen years as Chinese Delegate to C-XII (2008-2018), Chair of Sub-Commission C-XII-E since 2013 and Principal Reviewer of Welding in the World since 2010. He has been the Editorial Board Members of Science and Technology of Welding and Joining since 2010 and Welding in the World since 2021. Prof. Wu has been a pioneer and a leader in the development of multi-physics models for various welding processes, which provided deep insight into the process mechanisms and played key roles in enriching the knowledge base of welding science and technology. With complete understanding of the underlying physics based on the process models, Dr. Wu has developed innovative variants of conventional welding processes to increase productivity and product quality. He has published 380 papers in peer-reviewed journals, 3 books, and 8 book chapters. Prof. Wu has received numerous awards for his research achievements, including the Fellow of America Welding Society in 2017, the Pioneer Award in computational welding science and engineering in 2019, STWJ Best Paper Prize in 2016, and the International Meritorious Certificate Award of American Welding Society in 2021.

RECOGNITION 2024 IIW AWARDS

YIXIONG WU

Prof. Yixiong WU used to be vice chairman of the Chinese Welding Society and chairman of Shanghai Welding Society. The most outstanding achievement of his participation history in IIW activities was organizing the 70th Annual Assembly and International Conference held in Shanghai during June 25th to 29th of 2017, by which time he was also one of the Directors of IIW. In his 48 years' career of welding research since 1977, besides the great contributions in the development of electron beam welding, laser welding, and digitally controlled arc welding, he also effectively promoted the communication of welding technology between China and the world.

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

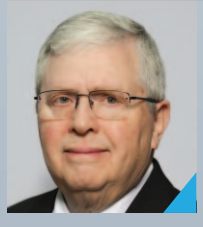
SUCK-JOO NA

Professor Na is Professor Emeritus of Korea Advanced Institute of Science and Technology (KAIST) and Chair Professor of Xian Jiaotong University (XJTU). He served as the President of the Korean Welding and Joining Society, President of Asian Welding Federation and TMB member of IIW, and is the Fellow of the Korean Academy of Science and Technology, IIW and AWS. Professor Na received various awards such as Charles H. Jennings Memorial Award of AWS, Yoshiaki Arata Award of IIW, FiDiPro Professorship and Humboldt research award. In the last 40 years as the Professor at KAIST and XJTU, Professor Na has acquired basic findings in the field of arc, laser beam and laser hybrid welding and related processes, and published more than 220 papers in international SCI journals and 150 presentations at international conferences, including 17 invited, 11 keynote and 7 plenary speeches.

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

DAVID FINK



David Fink has worked actively in the welding industry for over 53 years. He received a degree in chemical engineering in 1971 and subsequently completed numerous graduate courses.
He joined The Lincoln Electric Company in 1971 and has spent his entire career there (both full-time and retired consultant) in the areas of welding consumable design, testing, and filler metal standards. Mr. Fink is an AWS Life Member and has been active in the work of AWS technical committees and their subcommittees for nearly 50 years. He has received numerous awards from AWS, including that of an AWS Counselor. Mr. Fink has been an active participant in the IIW for over 35 years and has attended 33 of the last 35 Annual Assemblies. At various times he has served as the US Delegate to Commissions II, VIII, and XII and is currently Chair of SC II-E and is a regular participant in WG Standardization. Mr. Fink was the recipient of the IIW 2010 Thomas Medal and the 2019 Halil Gedik Award. His interest in international standardization has also led to his participation over the past 20 years in the work of ISO TC44 SC3 on Filler Metals where he currently serves as the USA Delegate. Mr. Fink is also an appointed ISO Observer to CEN TC121 WG3.

RECOGNITION 2024 IIW AWARDS

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

BOIAN ALEXANDROV

Dr. Boian Alexandrov is a Research Professor in the Department of Materials Science and Engineering and a Director of the Center for Weldability Evaluation at the Ohio State University. Before Joining OSU in 2003, he was an Associate Professor at the Technical University of Sofia, Bulgaria. Dr. Alexandrov is a Fellow of the American Welding Society and of ASM Interna-tional. He studies the physical metallurgy of welding and the service performance in welds and additively manufactured components of advanced alloys. He has extensive experience in weldability and printability evaluation and developed experimental and computational tools for process-microstructure-property optimization and for quantification of susceptibility to solidification, ductility-dip, stress relief, and hydrogen assisted cracking.

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

TERESA MELFI

Teresa is a Technical Fellow with Lincoln Electric Company. She has been involved in the welding industry for over 30 years, with roles in the manufacture, design and application of welding machines, consumables and processes. She supports the global welding and additive manufacturing communities through involvement in standards bodies, industry and academic projects and technical seminars. Her collaborations with designers, specifiers, fabricators, owners, insurers and classification societies help to establish safe and meaningful rules for welding and additive manufacturing. She currently serves on or chairs several American Welding Society, International Institute of Welding, Canadian Welding Bureau, API, ASME and ISO committees setting rules for welding qualifications, welding consumables and additive manufacturing. Teresa is the welding advisor to the National Board, and a Counselor of the American Welding Society and a Fellow of the International Institute of Welding. She has published many technical papers and holds United States and international patents related to welding processes, fabrication, metal alloys, test methods and welding consumable slag systems. Teresa is an advocate for education and career choices in skilled trades, and supports the involvement of under-represented populations in welding and engineering.

RECOGNITION 2024 IIW AWARDS

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

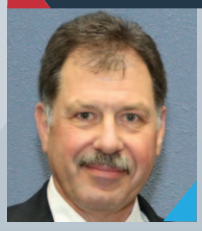
EMMANUEL AFRANE GYASI

Emmanuel Afrane Gyasi holds a Doctor of Science degree in mechanical engineering from LUT University, Finland. His research focuses on welding technology, with keen interests in digital manufacturing (for quality, productivity, and profitability), and welding education and training (skills development). A vision to promote welding technology for skills and jobs in Ghana has been Emmanuel's motivation since the year 2013. He has initiated and participated in several projects in welding with institutions such as the European Union, Christian Aid, and the German Development Agency (GIZ) in Ghana. He has been dedicated to supporting companies and agencies in West Africa, especially departments of the Ghana government in building a national welding capacity to tackle skills shortage and creating decent job opportunities for the youth. His contribution to the formation of the Ghana Welding Bureau (GWB), with the support of the Petroleum Commission of Ghana and other stakeholders, sees Ghana's participation in IIW activities nationally, regionally, and internationally, and towards the adoption of welding innovations and technology transfers. Currently, Emmanuel is a consultant in welding and technical and vocational education and training (TVET). He is a staunch advocate of the United Nations Sustainable Development Goals (UN SDGs) and a technical member of commissions II and XII of the IIW. He has over twenty (20) publications in the Web of Science and other social portals.

WALTER EDSTRÖM MEDAL *Sponsored by the Swedish Delegation*

Recognizes individual who, at their level of knowledge and responsibility, have provided a remarkable and distinguished contribution to IIW comparable with that made by Walter Edström himself

JOHN C. LIPPOLD



Dr. Lippold is currently Emeritus Professor in the Welding Engineering Program at Ohio State University. He retired from OSU in 2016 after more than 20 years on the faculty having trained over 60 graduate students. He received his B.S., M.S. and Ph.D. degrees in Materials Engineering from Rensselaer Polytechnic Institute. He worked for seven years at the Sandia Livermore Laboratory, Livermore, CA and from 1985 to 1995 for Edison Welding Institute. In 1995, he joined the faculty of the Welding Engineering Program at OSU. Dr. Lippold attended his first IIW Annual Assembly in 1990 and has participated in 28 meetings since then as an active participant and USA delegate to Commission IX. He has made over 40 presentations at C-II/IX intermediate meetings and annual assemblies and has co-authored 23 papers in the IIW journal, Welding in the World. In 2008, he was appointed Editor of Welding in the World. In conjunction with fellow editors Bruno DeMeester and Thomas Boellinghaus, he instituted a peer review system and led an initiative that led to WitW being included in the Science Citation Index beginning in 2013. Under his leadership as Lead Editor, the journal has grown in international status and recognition. In 2023, WitW published over 200 technical articles and 2500+ pages representing both fundamental and applied research topics, and achieved an Impact Factor of 2.1. He stepped down as Editor at the end of 2023 having reviewed over 2000 papers in his 15 year tenure. During this period, he also represented the journal as a member of the Technical Management Board (TMB). Dr. Lippold has received over 30 awards from various technical societies, including the Jaeger Lecture Award (2008) and the Yoshiaki Arata Award (2009) from IIW. He has been elected a Fellow of ASM International (1994), the American Welding Society (1996), and IIW (2022).

RECOGNITION 2024 IIW AWARDS

HENRY GRANJON AWARD *Sponsored by the French Delegation*

CATEGORY A: JOINING AND FABRICATION TECHNOLOGY

In recognition of his outstanding research paper 'Synergizing Human Expertise and Deep Learning to Robotize Adaptive Double-Electrode Gas Metal Are Welding Process'

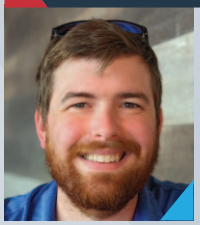
RUI YU

Dr. Rui Yu received his Ph.D. from University of Kentucky, under the supervision of Prof YuMing Zhang at the Institute for Sustainable Manufacturing. Since 2024, he has been engaged at Xi'an University of Technology as an assistant professor. His research primarily focuses on the integration of intelligent sensing and control within welding processes, utilizing deep learning techniques to enhance efficiency and precision.

CATEGORY B: MATERIALS BEHAVIOUR AND WELDABILITY

In recognition of his outstanding research paper 'Raie of Composition in Aging Additively Manufactured Precipitation Hardening Stainless Steels'

DEREK SHAFFER



Dr. Derek Shaffer was a Ph.D. candidate in Dr. Todd Palmer's research group at Penn State University in the materials science and engineering department from 2018-2023. Before joining this research group in 2018, he graduated at the top of his class from Penn State Behrend with a degree in Mechanical Engineering. At Penn State Behrend, he performed research on advanced manufacturing strategies for sheet metal in collaboration with Ford, Boeing, and MIT. He finished his master's degree in 2020 with a thesis focused on evaluating the impact of retained austenite on the deformation mechanisms in additively manufactured 17-4 precipitation hardening stainless steel. He was then awarded the American Welding Society Miller Electric Mfg. Co. Graduate Fellowship in 2020. He successfully defended his Ph.D. work aimed at understanding the effect nitrogen additions have on the aging behavior in precipitation hardening stainless steels in April of 2023. He then began working at ELLWOOD National Forge as a metallurgist overseeing forging, heat treatment, and other value added services, of production components as well as leading R&D projects involving many alloys.

CATEGORY C: DESIGN AND STRUCTURAL INTEGRITY

In recognition of his outstanding research paper 'Meso-macromecha nical investigation of fatigue behavior of friction stir welded joint of AlSilOMg'

ARAVINDH NAMMALVAR RAJA

I began my academic journey with a bachelor's degree in mechanical engineering at Easwari Engineering College, Anna University in Chennai, India. During my bachelor thesis at Rane NSK Steering Systems Limited in Chennai, I developed an interest in the field of numerical simulation. To pursue a career in this field, I moved to Germany for a Master Program after working as a Graduate Trainee Engineer at TVS Sundram Fasteners Limited in Pondicherry for about a year. During my Master in Computational Mechanics at the University of Duisburg-Essen, I completed an internship at NSK Limited in Fujisawa, Japan, and my master thesis at Simufact Engineering GmbH in Hamburg. I have been working as a research assistant in the Teaching and Research Group of Materials Engineering and Joining Technology at the Westphalian University of Applied Sciences in Gelsenkirchen since 2021. Together with the Interdisciplinary Centre for Advanced Materials Simulation at Ruhr University Bochum and the University of Kassel, I have been investigating the low-cycle fatigue behavior of the friction stir welded hybrid joints of AlSi10Mg, produced by laser-based powder bed fusion and casting process, at the meso and macro scale using suitable micromechanical and macroscopic modeling approaches. The results of this research project have been presented at a couple of international conferences and published in a few peer-reviewed journals. Based on this research project, I submitted my doctoral thesis under the guidance of Prof. Dr. Alexander Hartmaier and Prof. Dr.-Ing. Ghazal Moeini.

RECOGNITION 2024 IIW AWARDS

HALIL KAYA GEDIK AWARD *Sponsored by the Turkish Delegation*

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

SERGIO AMANCIO

Prof. Dr. Sergio Amancio is a full professor for aviation materials and manufacturing techniques at Graz University of Technology - TU Graz (Austria). Moreover, Sergio Amancio is an adjunct professor in the Welding Engineering Program at Ohio State University (USA) since 2020. He was also a visiting professor in joining technology and additive manufacturing at Peter the Great St. Petersburg Polytechnic University, (Russia) from 2020 to 2021. Prof. Amancio has been working on the correlation between processing parameters, microstructure and material properties of joining and additive manufacturing techniques. Before joining TU Graz, he was a Helmholtz-Young Investigator group leader at Helmholtz-Zentrum Geesthacht (Germany) and an assistant professor for joining technology at Hamburg University of Technology - TU Hamburg (Germany). In the course of his academic career, he has advised and supported the career of several young professionals, whereby 79 PhD, MSc and BSc theses were concluded under his supervision until March 2024. Sergio Amancio has been awarded national and international prizes, including the 'Georg-Sachs Prize 2014' and the 'DGM Prize 2022' of the German Society for Materials Science (DGM), as well as the 'Granjon Prize 2009' and the 'Yoshiaki Arata Award 2023' of the International Institute of Welding. Since 2009, Prof. Amancio has served as an expert and delegate member at different IIW commissions and is the current Chair of IIW's 'Commission XVI - Polymer Joining and Adhesive Technology'.

WELDING IN THE WORLD BEST PAPER AWARD *Sponsored by IIW*

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

CATEGORY A: WELDING PROCESSES AND ADDITIVE MANUFACTURING

In recognition of his outstanding research paper 'Application of electrical power measurements for process monitoring in ultrasonic metal welding'

FLORIAN MÜLLER

Since 2018 Florian Müller, M. Sc. in Aerospace Engineering, works as a research engineer and now group leader for ultrasonic welding at the RWTH Aachen University Welding and Joining Institute in Aachen, Germany. His field of work is the area of low-heat joining processes, especially material bonds for electrical applications. Florian Müller's current research focus is on process monitoring and predictive quality assessment of ultrasonic metal welded joints. In addition to public research, he and his colleagues support in the industrial realization of solid-state welding processes, process digitalization and the implementation of current research results in real world applications.

CATEGORY B: MATERIALS AND METALLURGY

In recognition of his outstanding research paper 'Effect of microstructural heterogeneities on variability in low-temperature impact toughness in multi-pass weld metal of 420 MPa offshore engineering steel'

NELLIKODE SAVYASACHI

I am currently pursuing a Ph.D. under the guidance of Professor Yeong-do Park in the Advanced Materials Engineering Department at Dong Eui University, South Korea. My research focuses on welding metallurgy of high-performance special section steel for construction and offshore structures. During my academic journey, I was awarded the GATE (Graduate Aptitude Test in Engineering) Scholarship to support my studies and my M. Tech thesis received a cash award from the American Welding Society. Additionally, I have received an award with financial support under 'innovate scheme' for the project titled 'portable spot-welding machine' by Kerala state council for science, technology and environment. My professional career spans various roles, including project fellow at the Indira Gandhi Centre for Atomic Research (IGCAR) and positions as a research engineer at D&H Secheron Pvt. Ltd. and Weld Craft Pvt. Ltd. Additionally, my contributions to the field have been recognized by the Korean Welding and Joining Society, where I received awards for the best paper presentations both in poster section in KWJS spring 2021 and oral presentation section in KWJS spring 2023. I have also presented my research findings at commission II in IIW Annual Assemblies in Tokyo (2022) and in CIII in Singapore (2023), as well as the Commission IX Intermediate Meeting in Seoul (2024).

RECOGNITION 2024 IIW AWARDS

CATEGORY C: STRUCTURAL INTEGRITY, DESIGN AND FITNESS FOR SERVICE
In recognition of his outstanding research paper 'Fatigue performance of ultra-high-strength steel laser cut notches under variable amplitude loading'

KALLE LIPIÄINEN

Kalle Lipiäinen works as a postdoctoral researcher in the research group of Steel Structures in LUT University (Lappeenranta, Finland). His research is focused on the experimental testing of the mechanical performance. The studies cover welded high-strength-steel structures and additive manufacturing in component level regarding ultimate capacity and fatigue strength. Characterizing local fatigue critical features with scanning electron microscopy and connecting the quality on the fatigue performance is one main topics in his research. He has been contributing to the works in the IIW Commissions XIII (Fatigue) and XV (Design and Fabrication). He has authored approximately 30 scientific articles.

ANDRÈ LEROY PRIZE *Sponsored by the French Delegation*

In recognition of their multimedia documents (including video and computer programmes) intended for use in Education and Training in any aspect of welding and allied processes (brazing, hot spraying, thermal cutting, etc.) at any level (engineers, technicians, welders, etc.).

WELD AUSTRALIA TRAINING & EDUCATION

Weld Australia is Australia's premier welder training organisation, committed to upskilling the next generation of welders through comprehensive training, qualification, and certification services. Our offerings include face-to-face, online, and blended learning courses designed to equip welders, fabrication and manufacturing companies, and the industrial sector with cutting-edge skills and knowledge. We also run education and outreach programs for inmates and First Nations people and introduce school students to STEM careers. As an International Institute of Welding (IIW) Authorised National Body (ANB) and Authorised Training Body (ATB), we provide internationally recognised qualifications and specialist industry-based courses tailored to individual companies.

MEM PROJECT

Registered Training Organisations, these resources are accessible via the dynamic Weldpool platform and feature interactive theory presentations, practical demonstrations, comprehensive written materials, and engaging quizzes. The resources are designed to support various learning methods, offering students unlimited access and enhancing practical skills. Teachers benefit from reduced preparation time, while organisations enjoy cost savings and standardisation, ensuring high-quality, consistent training nationwide. This initiative not only elevates the standard of welder training but also ensures that students, regardless of location, receive the best education and training available. For more information, visit: https://weldaustralia.com.au/mem-resources

IIW
MEMBER SOCIETIS

COUNTRY	ANB	ANBCC	Member(S)	ANB / ANBCC
AUSTRALIA	✓	✓	• Weld Australia	• Weld Australia
AUSTRIA	✓		• Schweisstechnische Zentralanstalt (SZA) • Österreichische Gesellschaft Für Schweisstechnik (ÖGS)	• Schweisstechnische Zentralanstalt (SZA)
BELGIUM	✓		• Institut Belge de la Soudure – Belgisch • Instituut voor Lastechniek (IBS/BIL)	• Association Belge du Soudage ASBL • Belgische Vereniging voor Lastechniek VZW
BULGARIA	✓		• Bulgarian Welding Society	• Bulgarian Welding Society (BWS)
CANADA	✓	✓	• Canadian Council of the IIW • Canadian Welding Bureau (CWB)	• Canadian Welding Bureau (CWB)
CROATIA	✓		• Croatian Welding Society (CWS)	• Hrvatsko Drustvo za Tehniku Zavarivanja (HDTZ)
CYPRUS			• Cyprus Welding Institute	
CZECH REPUBLIC	✓	✓	• Czech Welding Society ANB (CWS-ANB)	• Czech Welding Society ANB (CWS-ANB)
DENMARK	✓		• Danish Welding Society	• Force Technology
EGYPT	✓		• A.O.I. - Arab Organization for Industrialization	
FINLAND	✓		• Suomen Hitsausteknillinen Yhdistys (SHY)	• Suomen Hitsausteknillinen Yhdistys (SHY)
FRANCE	✓	✓	• Institut de Soudure (IS) • Société Française des Ingénieurs et Techniciens en Soudage (SIS)	• Association Française du Soudage (AFS)
GERMANY	✓		• Deutscher Verband für Schweissen und verwandte Verfahren (DVS)	• DVS-PersZert
GHANA			• Ghana Welding Bureau	
GREECE	✓	✓	• Welding Greek Institute (WGI)	• Welding Greek Institute (WGI)
HUNGARY	✓	✓	• Magyar Hegesztési Egyesület (MAHEG) • Hungarian Welding Association (HWA)	• Magyar Hegesztéstechnikai ès Anyagvizsgálati Egyesülés (MHtE)
INDIA	✓	✓	• The Indian Institute of Welding - IIW (India)	• The Indian Institute of Welding - IIW (India)
INDONESIA	✓		• Indonesian Welding Society (IWS)	• Indonesian Welding Society (IWS) ANB Committee
IRAN			• Iranian Welding and Joining Institute (IWJI)	
ITALY	✓	✓	• Istituto Italiano della Saldatura (IIS)	• IIS CERT Srl
JAPAN	✓		• Japan Institute of Welding (JIW) • The Japan Welding Engineering Society (JWES)	• Japan Welding Engineering Society (JWES)
MEXICO			• Instituto Nacional De Soldadura Asociacion Civil (INSAC)	
MALAYSIA	✓		• Welding Institute of Malaysia Bhd (WIM)	• Welding Institute of Malaysia Bhd (WIM)
MOROCCO			• Association Marocaine du Soudage et des Appareils à Pression (AMS-AP)	
NAMIBIA	✓		• WeldNAM - Association for Welding and Allied Processes of Namibia	
NEW ZEALAND		✓	• Heavy Engineering Research Association (HERA)	• Heavy Engineering Research Association (HERA)
NIGERIA	✓		• Nigerian Institute of Welding (NIW)	• Nigerian Institute of Welding (NIW)
NORWAY	✓		• Norsk Sveiseteknisk Forbund (NSF)	• Norwegian Welding Association (NSF)
PAKISTAN			• The Pakistan Welding Institute	
PEOPLES RÉPUBLIC OF CHINA	✓	✓	• Chinese Welding Society	• Chinese Welding Training & Qualification Committee (CWTQC)
POLAND	✓	✓	• Siec Badawcza Łukasiewicz • Instytut Spawalnictwa	• Lukasiewicz - Instytut Spawalnictwa (L-IS)
PORTUGAL	✓		• Instituto de Soldadura e Qualidade (ISQ)	• Instituto de Soldadura e Qualidade (ISQ)
REPUBLIC OF KAZAKHSTAN	✓	✓	• Karaganda State Technical University (KSTU)	• Kazakhstan Welding Association (KAZWELD)

IIW
MEMBER SOCIETIES

COUNTRY	ANB	ANBCC	Member(S)	ANB / ANBCC
REPUBLIC OF KOREA	✓		• The Korean Welding and Joining Society (KWJS)	• The Korean Welding and Joining Society (KWJS)
ROMANIA	✓	✓	• National Research Development Institute for Welding and Material Testing (ISIM) • Romanian Welding Association (ASR)	• ASR CertPers • ISIM Cert
RUSSIAN FEDERATION *Suspended*			• Russian Welding Society • Self-Regulating Organization Non-commercial Partnership National Agency of Welding Control (SRO NP NAKS)	• Research-training center Testing and Diagnostics • Prometey-Cert CJSC
SERBIA	✓	✓	• Zavod Za Zavarivanje A.D.	• DUZS-CertPers • Zavod Za Zavarivanje A.D. – ZAVOD Cert
SINGAPORE			• Singapore Welding Society (SWS)	• Singapore Welding Society (SWS)
SLOVAK REPUBLIC	✓	✓	• Výskumný Ustav Zváracský - Welding Research Institute (VÚZ) • Slovenská zváracská spolocnost - Slovak Welding Society	• Výskumný ústav zváracský (VUZ) • Certiweld VUZ-PI SR
SLOVENIA	✓	✓	• Slovensko Drustvo Za Varilno Tehniko (SVDT)	• Slovensko Drustvo Za Varilno Tehniko (SDVT)
SOUTH AFRICA	✓	✓	• Southern African Institute of Welding (SAIW)	• Southern African Institute of Welding (SAIW)
SPAIN	✓	✓	• Asociación Española de Soldadura y Tecnologías de Unión (CESOL)	• CESOL - Asociación Española de Soldadura y Tecnologías de Unión
SWEDEN	✓		• Svetskommissionen - Swedish Welding Commission (SWC) • Swedish Welding Society	• Svetskommissionen
SWITZERLAND	✓		• Schweizerischer Verein für Schweisstechnik (SVS/ASS) • Association Suisse pour la Technique du Soudage	• Schweizerischer Verein für Schweisstechnik (SVS/ASS)
THAILAND	✓		• Welding Institute of Thailand (WIT)	• Welding Institute of Thailand (WIT)
THE NETHERLANDS	✓	✓	• Nederlands Institut Voor Lastechniek (NIL) • Netherlands Institute of Welding	• Nederlands Institut Voor Lastechniek (NIL)
TUNISIA			• Centre Technique des Industries Mécaniques et Electriques (CETIME)	
TURKEY	✓		• Gedik Education and Social Benefits Foundation (GEV) • Istanbul Gedik University Middle East Technical University • Middle East Technical University	Gedik Education and Social Benefits Foundation / urkish Welding Technologies Academy (GEV/TKTA)
UKRAINE	✓	✓	• E.O. Paton Electric Welding Institute	• The Paton Welding Institute Training and Qualification Centre • International Scientific-technical Centre of Quality Assurance and Certification ´PATONCERT´
UNITED KINGDOM	✓	✓	• UK Section of the IIW	• TWI Certification Ltd.
UNITED STATES OF AMERICA		✓	• American Welding Society (AWS) • Edison Welding Institute (EWI)	• United States of America Authorised National Body for Company Certification USA ANBCC
VIETNAM	✓		• Vietnam-German Technology Transfer and Training Center (HWC)	• Vietnam-German Technology Transfer and Training Center (HWC)

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