



The Indian Institute of Welding

proudly announces the

19-21 January, 2023

at the

Chennai Trade Centre

Nandambakkam, Chennai

NATIONAL WELDING SEMINAR 2022

**Theme: DEVELOPMENTS IN WELDING
ENGINEERING AND EMERGING KNOWLEDGE IN
ADDITIVE MANUFACTURING (DWE EKAM)**

and

WELD INDIA 2022

(an International Welding Technology Exhibition)

organised by

The Indian Institute of Welding, Chennai Branch



(Golden Jubilee Celebrations: 1973-2023)

The Indian Institute of Welding (IIW-India)

IIW-India is a professional body devoted to the promotion and advancement of welding science and technology in India. Established in 1966, with its registered office at Kolkata, it has thirteen branches and over 4300 welding professionals as members, and 130 industries as corporate members. IIW-India is involved in human resources development in Welding in India by carrying out training and certification of engineers and welders in India in line with international standards; technology diffusion to the Industry and to the welding community through seminars, workshops, training programmes etc.; encouraging Research & Development in welding; and establishing international standards of quality for the Indian fabrication industry. IIW-India conducts associate membership examination, and publishes technical journals and periodicals in the field of welding. IIW-India is a member society of the International Institute of Welding (IIW). It has obtained its accreditation as Authorized Nominated Body (ANB) from IIW, through which it conducts international certification programmes, such as IWE, IWT, IWS & IWP, of the International Institute of Welding. IIW-India has obtained accreditation as Authorized Nominated Body for Company Certification (ANBCC) from the International Institute of Welding through its International Authorization Board (IAB) for the exclusive rights within India to operate its Manufacturers Certification Scheme (MCS) for certification of companies for compliance to the requirements of ISO 3834. IIW-India is also having its own National Welding Training and Certification Scheme (NWTCS) for certification of welders in various levels.

The Chennai Branch of IIW-India was founded on 17 January 1973. It was the second Branch established by IIW-India. Since its inception, the Chennai Branch has made good progress with respect to membership, technical programmes etc., due to the unstinted support of industries in the region and selfless efforts of various members and office bearers. Today the Branch has over 400 members and 25 Industrial Corporate members. It has hosted four major events of the International Institute of Welding and two National Weld Meets (NWM) over the last one and a half decades, viz. Annual Assembly of IIW in 2011 (the first time in India), International Conference in 2011, and International Congress in 2008 and 2017. It has also held the flagship exhibitions of IIW-India, WELD INDIA, during these international events. It conducted the National Weld Meet in Puducherry in 2010 and in Kilakari in 2014. The Chennai Branch celebrates its Golden Jubilee on 17 January 2023. A grand celebration is planned on 20 January 2023 during the National Welding Seminar between 19 and 21 January 2023.

The National Welding Seminar 2022 (NWS 2022)

The National Welding Seminar is a very important event in the calendar of the Indian Institute of Welding. This is a very important forum where everyone involved in welding, from industries, research institutions and educational Institutions, meet under one banner to discuss the latest evolutions in the art, science and technology of welding. Being the hub of industrial activities, Chennai is hosting the National Welding Seminar (NWS 2022) of the Indian Institute of Welding during 19-21 January 2023.

Welding Science and Technology is at cross roads. It is no more centred around arc welding, skill of the welders, welding inspection, testing and welding metallurgy. Variants of arc welding available for commercial applications, like CMT, K-TIG, STT, hot wire NG-TIG, etc are much more than in the past. Further, welding processes other than arc welding, like friction stir welding, laser welding etc. have come out of the researchers curiosities and is offering better alternative to conventional arc welding. If manual welding and skill of the welders were the norms in the past, today they are replaced by welding automation and robotic welding. Mathematical modelling is no more confined to modelling of temperature profiles or predication for residual stresses in simple geometries. This area of welding science has matured to predict distortion and residual stresses and properties of the complex weld joints with amazing accuracy and repeatability. It is possible to choose appropriate joint design, welding process parameters, welding sequence etc. that can produce welds with desirable microstructure, controlled distortion and predictable residual stresses.

The opportunities opened up in the manufacturing sector through additive manufacturing (AM) route have led to a paradigm shift to welding science and technologies. There is a need to develop special welding power sources and equipments suitable for AM, consumables (both in wire and powder forms) for depositions, inspection techniques that can carry out online inspection of AM components and characterization and testing techniques for the AM products. There is scope for introducing new procedures during AM and post processing of AM components to match the properties of the components produced by the conventional route or even improve them further. A close interaction among the equipment manufacturers, consumable manufacturers, design engineers, welding engineers and inspectors, welding metallurgist and NDT professionals are inevitable to exploit the opportunities thrown out by recent developments in welding science and technologies and additive manufacturing.

In view of the above, the **Theme of the National Welding Seminar 2022** is

**DEVELOPMENTS IN WELDING ENGINEERING AND EMERGING KNOWLEDGE IN ADDITIVE MANUFACTURING
(DWE EKAM)**

Topics to be Covered During NWS 2022

Topics that would be deliberated upon in the National Welding Seminar 2022, but not restricted to, are the following:

- Arc Welding Processes
- Solid State Welding Processes
- Beam welding processes
- Additive Manufacturing
- Welding Automation and Robotic Arc Welding
- Industry 4.0 and Beyond
- Advanced Welding and Cutting Processes
- Welding Consumables and Procedures for Conventional and Emerging Materials
- Welding Power Sources, Equipment and Robotics
- Surfacing and Wear
- Advances in Welding Fabrication Techniques and Productivity
- Automation in Welding
- Design and Manufacturing of Welded Components
- Welding Metallurgy and Weldability Analysis of Ferrous and Non-Ferrous Materials
- Mathematical Modelling and Simulation Related to Welding
- Assessment of Properties and Integrity of Weld Joints
- Residual Stresses and Distortion
- Repair and Maintenance Welding ,and Residual Life Estimation
- Non-Destructive Evaluation, Quality Assurance and Weld Related Failure Analysis
- Cost and Economics of Welding
- Safety and Productivity in Welding
- Skill Development, training and education in Welding

Who Should Attend NWS 2022

Broadly, but not restricted to, Welding technologists, scientists and professionals, production managers, welding & inspection engineers and shop floor Engineers from heavy fabrication industry; nuclear industry; power industry; aeronautical and space industry; defence industry; chemical, petrochemical and pharmaceuticals industries, surface transportation industry and faculty from engineering colleges besides manufacturers of welding consumables, equipment, NDT and testing equipment etc. will benefit immensely by attending NWS 2022.

Invitation to Authors

Welding technologists, scientists and professionals who are interested in presenting their original work and experience as technical papers in the Seminar are requested to send their abstract(s) of the paper(s), in any one of the suggested theme topics.

The papers should be based on original work and should not have been presented in any other national or international seminars/conferences.

To ensure a wider participation, POSTER sessions will also be held along with the oral presentations. Authors desirous of presenting their papers in the poster session may indicate their preference while submitting the abstract.

Guidelines for Submission of Abstracts

- The abstract should be in English and should not exceed 500 words.
- The abstract should be typed on A4 size paper leaving aside 25 mm margin on the left and 20 mm margin on all other sides. The abstract shall highlight the aim of the work, procedures adopted for the study, and salient features of the results and conclusions.
- The names, complete postal address, e-mail address and telephone & fax numbers of the authors should be typed below the title in the abstract.
- The abstracts and full texts of paper may be sent by email to technical.nws2022@gmail.com

The abstracts will be scrutinised by a panel of experts in the field and the authors would be informed regarding the acceptance along with the guidelines for submission of the full paper. One of the authors presenting the paper would have to register as delegates in the Seminar. One author can present not more than two papers in the Seminar.

Important Deadlines

Receipt of Abstracts	: 17 October 2022
Acceptance of Abstracts	: 07 November 2022
Receipt of Full Manuscripts	: 20 December 2022

Delegate Fees

Category	Indian Delegates	Foreign Delegates
Members of IIW-India & Presenting Authors	INR 7500/-	-----
Non-members	INR 8500/-	USD 250
Students	INR 5000/-	USD 160
Spouses	INR 4000/-	USD 125

18% GST Extra

Foreign delegates Bank charges to be borne by individual

For delegate fees, payment may be made to the following account:

Name of Account: The Indian Institute of Welding - NWS 2022

Account No.: 41185201177

Bank: State Bank of India

Branch: Kalpakkam

IFSC: SBIN0002219

Advertisements

It is proposed to bring out a Souvenir on the occasion of NWS 2022. Advertisements are invited from prospective companies, business houses and others, for inclusion in the souvenir at the following rates:

Full Page Inside Front Cover (4 colours) :	Rs. 40,000/-	USD 700
Full Page Outside Back Cover (4 colours):	Rs. 50,000/-	USD 800
Full Page Inside Back Cover (4 colours):	Rs. 40,000/-	USD 700
Centre Spread (A3 size; 4 colours):	Rs. 60,000/-	USD 1000
Book Mark:	Rs. 20,000/-	USD 350
Full Page Colour:	Rs. 15,000/-	USD 275
Full Page B&W:	Rs. 10,000/-	USD 200

5% GST Extra

Material for advertisement should be sent by email to technical.nws2022@gmail.com on or before 31 December 2022

For advertisements, payment may be made to the following account:

Name of Account: The Indian Institute of Welding - NWS 2022

Account No.: 41185201177

Bank: State Bank of India

Branch: Kalpakkam

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Sponsorships

Interested Companies are invited to sponsor in the NWS 2022 as per the following details:

Category of Sponsorship	Amount for Indian Companies (in INR)	Amount for Foreign Companies (in USD)	No. of Sponsors	Logo	Company Profile in the Souvenir	Advertisement in the Souvenir	Banner/ Standees	Free Space in WELD INDIA 2022	Free Delegates
Star sponsors	5 Lakhs	10,000	Two	in Souvenir	One Page	One Page Colour	Lecture Halls	12	5
Gold sponsors	4 Lakhs	8,000	Three	in Souvenir	One Page	One Page Colour	Lecture Halls	9	4
Silver Sponsors	3 Lakhs	6000	Five	in Souvenir	One Page	One Page Colour	Lecture Halls	6	3
Sponsors for Lunch	4 Lakhs	8,000	Three	in Souvenir	One Page	One page Colour	Dining Area	9	4
Sponsors for Dinner	4 Lakhs	8,000	Three	in Souvenir	One Page	One Page Colour	Dining Area	9	4
Sponsors for Kitbag	3 Lakhs	6,000	Two	in Souvenir, in Kitbag	One Page	One Page Colour	---	6	3
Sponsors for Cultural Programme	3 Lakhs	6,000	Two	in Souvenir	One Page	One page Colour	On Stage & on Floor of the Cultural Programme Venue	---	3
Sponsor for each Session	50,000	1,000	Thirty Five	---	---	One Page B&W	In the Session	---	1

18% GST Extra (Reverse Charge Mechanism)

For Sponsorship, payment may be sent to the following account:

Name of Account: The Indian Institute of Welding - NWS 2022

Account No.: 41185201177

Bank: State Bank of India

Branch: Kalpakkam

IFSC: SBIN0002219

The Welding Exhibition -- WELD INDIA 2022

An International Welding Exhibition (WELD INDIA 2022) will be organized alongwith the National Welding Seminar (NWS 2022). The latest in the field of welding ranging from equipments and consumables to welding robots and allied fields such as non-destructive evaluation and other testing equipments will be on display. A separate Brochure has been sent to all prospective exhibitors. Invitations have been sent to manufacturers and dealers in electron beam, laser and diffusion welding equipments; welding and hardfacing consumables; weld repair and maintenance equipments; computer aided welding equipments; welding robots and CNC machines; soldering and brazing equipments; gas, plasma and laser cutting machines; gas equipments and accessories; grinding and cutting tools; heat treatment furnaces; industrial gases; manufacturing and fabrication technologies; materials including steels, stainless steels, aluminum and other advanced materials; welding safety equipments; non-destructive inspection and testing equipments; electron and optical microscopes; welding education, training and consultancy.

The Exhibition manager for WELD INDIA 2022 is M/S CEC Exhibitions Pvt Ltd. For booking of stalls, prospective exhibitors may contact :

M/s CEC Exhibitions Pvt. Ltd.

Biju Thomas Panjikunnel, Project Director,

Hand Phone: + 91 94951 95000

PATRONS

The Indian Institute of Welding is honoured to have the following dignitaries as Patrons for the NWS 2022 and WELD INDIA 2022

Dr. Vijay Kumar Saraswat, Member, NITI Aayog and Chancellor, Jawaharlal Nehru University, Govt. of India

Dr. Kamlesh Nilkanth Vyas, Chairman, Atomic Energy Commission and Secretary, Department of Atomic Energy, Govt. of India

Dr. G. Satheesh Reddy, Scientific Advisor to Defence Minister, Govt. of India

Dr. R. M. Kathiresan, Vice Chancellor, Annamalai University, Chidambaram

ADVISORY COMMITTEE

The following dignitaries in the Advisory Committee will guide us in the conduct of NWS 2022 and WELD INDIA 2022

Dr. B. Venkatraman, Director, Indira Gandhi Centre for Atomic Research, Kalpakkam

Dr. G. Madhusudhan Reddy, Director, Defence Metallurgical Research Laboratory, Hyderabad

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Mr. Abby Joseph, Managing Director, voestalpine Bohler Welding India, Thane

Mr. V. V. Kamath, Managing Director, Fronius India Pvt. Ltd., Pune

Mr. Arvind A. Maheshwari, Vice Chairman, D&H Secheron Electrodes Pvt. Ltd., Mumbai

Mr. Deepak Acharya, President, IIW-India

Mr. Rituraj Bose, Honorary Secretary General, IIW-India

Dr. Shaju Albert, Formerly Director, MMG & MSG, IGCAR, Kalpakkam

Prof. V. Balasubramanian, Chairman, IIW-India, Chennai Branch

Prof. A. Murugaiyan, Chairman, Technical Committee, IIW-India

Mr. Jose Philip, IIW-India, Cochin Branch

THE NATIONAL ORGANISING COMMITTEE

Chairman: Mr. Deepak V. Acharya, President, IIW-India

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Mr. Abby K. Joseph,
Mr. Som Ashutosh
Mr. Rahul Sengupta

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Chairman, Kit Bag and Publications Committee: Dr. Hasan Shaikh

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Mr. P. Sasianand

Mr. R. Ravirajan

WELD INDIA

Dr. Hasan Shaikh (Chairman)

Mr. R. Ravirajan

Mr. M. Krishnamoorthy

Mr. V. Muralidharan

ABOUT CHENNAI

The Seminar will be conducted in Chennai, the largest city in South India and the fourth largest in the country. Chennai, is a journey into timeless India, a kaleidoscope of moods, rich in the treasures of history, from temples and shrines to forts and palaces, the landscape of the past lives easily with the present. Retaining much of its traditional charm, this 370 year old city is the gateway to the south, providing many a fascinating vignette of southern heritage. The varied aspects of traditional South Indian culture exist alongside the lifestyle of a modern city complete with its plush hotels and restaurants.

The temperature during January is usually moderately warm (30°C) in the day and about 20-25°C in the night. Chennai is well connected by rail, road and air from all over India. There are several good hotels in Chennai, tariff ranging from Rs. 2000 to Rs. 15000, besides several Government guest houses. Outstation delegates are requested to make their own arrangements for accommodation. Transport for delegates from and to Railway Station, Airport and during their stay in Chennai can be arranged on payment basis on prior intimation.

AROUND CHENNAI

Mahabalipuram

Globally renowned for its shore temples, Mahabalipuram was the second capital of the Pallava kings of Kanchipuram. 58 kilometres from Madras on the Bay of Bengal, this tiny sea - side village of Mahabalipuram, is set in a boulder - strewn landscape. Tourists are drawn to this place by its miles of unspoiled beach and rock-cut art. This unspoiled seaside village on the Bay of Bengal has miles of beaches, fine Indian seafood, exceptional art, and intricately carved stone temples. In Mamallapuram the Five Rathas, the Shore Temple, and Arjuna's Penance are impressive examples of Pallavan work.



Kanchipuram

Kanchipuram is one of the most sacred Hindu pilgrimage sites in India and the seat of the Shankaracharya. The city is situated around 70 km from Chennai in the south Indian state of Tamil Nadu. It was under the Pallavas from 6th to 8th century A.D and later became the citadel of Cholas, Vijayanagar Kings, the Muslim and the British. It has been a centre of Tamil learning, cultural background for centuries. Kanchi is also known centre of the finest silk sarees made in the country. Kanchi has magnificent temples of unique architectural beauty bearing eloquent testimony to its glorious Dravidian heritage. Adi Sankara established his episcopal seat.



Pondicherry

Situated on the Coromandel coast, about 160 kms south of Chennai, lies the Union Territory of Pondicherry. The French ruled this territory for 300 years, and today it stands testimony to French culture and ethos in India. Sri Aurobindo Ashram and Auroville are the main attractions in Pondicherry and are located about 10 kms outside the town.

IMPORTANT CONTACTS

Chairman, NWS 2022 Prof. V. Balasubramanian, Email: chairmaniwc@gmail.com Tel.: +91 94434 12249	Convener, NWS 2022 Dr. Hasan Shaikh Email: hasanshaikh59@gmail.com Tel.: +91 91595 95363	
Secretary, NWS 2022 Mr. Utpal Borah Email: borah@igcar.gov.in Tel.: +91 94455 65122	Technical, NWS 2022 Dr. Shaju K. Albert E-mail : shajualbert@gmail.com Tel.: +91 94433 82372	Dr. A. Murugaiyan Email: murugaiyan@iitm.ac.in +91 94433 88576
Hotel Booking & Transport, NWS 2022 Mr. V. Muralidharan Email: ennappan@gmail.com Tel.: +91 99624 56967	For booking of stalls M/s CEC Exhibitions Pvt. Ltd. Biju Thomas Panjikunnel, Project Director, Hand Phone: + 91 94951 95000	

Abstracts and Full Texts of Papers should be sent only to technical.nws2022@gmail.com

Registered and Head Office

The Indian Institute of Welding, IIW-India House, Plot No. 38, Geetanjali Park, 200, Kalikapur Main Road,
PO: Mukundapur, Kolkata – 700099 Website: <https://iiwindia.com/>

NATIONAL WELDING SEMINAR 2022 (NWS 2022)

Registration / Advertisement / Sponsorship Order Form

To

Dr. Hasan Shaikh

Convenor, National Welding Seminar 2022

Email: convenor.nws2022@gmail.com, Mobile: +91 9159595363

Dear Sir,

I would like to register for the National Welding Seminar 2022 to be held at Chennai during 19-21 January 2023

Name:

Organisation:

Designation:

Email:

Hand Phone:

We would like to participate in NWS 2022

Present technical papers Participate as Delegates

We would like to reserve advertisement space in the Souvenir of NWS 2022 and/or sponsor as detailed below

- Full Page Inside Front Cover (4 colours)
- Full Page Outside Back Cover (4 colours)
- Full Page Inside Back Cover (4 colours)
- Centre Spread (A3 size; 4 colours)
- Book Mark
- Full Page Colour
- Full Page B&W

- Star sponsors
- Gold sponsors
- Silver sponsors
- Lunch sponsors
- Dinner sponsors
- Kitbag sponsors
- Cultural Programme Sponsors
- Session Sponsors

We have transferred the amount of Rupees _____ including _____% GST, as per the following details:

DD No. _____ dated _____ of _____ Bank payable at Chennai (No cheques will be accepted)

In case of online Transfer, Transaction Number _____ dated _____ of _____ Bank. (Screen shot of Transaction must be sent)

Note: Only Full Time Undergraduate, Post Graduate and PhD Research Scholars are eligible for Students Category delegate fees. Part-time scholars can not avail students concession. Those availing students concession must send a scanned copy of the College/University ID card.

Date

Signature