



## THE INDIAN INSTITUTE OF WELDING

(A Member Society of the International Institute of Welding)

Organized by :

THE INDIAN INSTITUTE OF WELDING

Jamshedpur Branch

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# National Welding Seminar (NWS) 2024

**Theme:**

“Advances in Welding, Cladding & Additive Manufacturing (AWCAM) 2024”

**12<sup>th</sup> - 14<sup>th</sup>  
DECEMBER, 2024**

**SNTI, BISTUPUR  
JAMSHEDPUR**

## About The Indian Institute of Welding (IIW-India)

The Indian Institute of Welding (IIW-India) is a premier professional body of welding fraternity, devoted to the promotion and advancement of welding science and technology. It was established on 22nd April 1966, with its registered office at Kolkata. Presently IIW-India is having 14 branches and several Students' Chapters, spread all over India. It has more than 4500 members including around 150 industries as Industrial Corporate Member. The Institute publishes Indian Welding Journal, which has technical research papers of high standards and published quarterly along with a specific section of American Welding Society (AWS). IIW-India is the responsible member society of the International Institute of Welding in India and has acquired the status of Authorised Nominated Body (ANB) to award internationally accredited professional Diplomas such as International Welding Engineer (IWE), International Welding Technologist (IWT) etc., and also acquired the status of Authorized Nominated Body for Company Certification (ANBCC) to certify Industries as per ISO 3834. The Institute also conducts its own National Welding Training & Certification Scheme (NWTCS) and National Welding Inspectors' Certification Scheme (NWICS) through Authorised Testing Institutes. It is also associated with educational institutes as Knowledge Partner and with Sector Skill Councils as Assessing Body. The motto of IIW-India is 'Welding for Nation Building'.

## About the IIW-India, Jamshedpur

IIW-India, Jamshedpur branch was inaugurated in the year 1983. Since then, the branch has provided support to local industries by providing volunteered consultancy and conducting training, refresher courses and skill development programs for welders, welding supervisors and operators. The branch is actively engaged in knowledge dissemination and information upgradation of welding professionals by holding workshops and lectures regularly on topics related to manufacturing and fabrication. The annual events of the branch include a major seminar, welder refresher course, and welder skill competition. Efforts are on to offer services to local SMEs on welding system certification as per ISO 3834.





## The National Welding Seminar 2024 (NWS 2024)

The National Welding Seminar (NWS) is one of the flagship events in the calendar of The Indian Institute of Welding (IIW-India) and is eagerly anticipated by welding and joining fraternity. This event brings together industry professionals, researchers, academicians, and students working in the areas of welding and allied technologies under one umbrella to discuss and disseminate their latest findings, learnings and experience with each other. Being one of the oldest industrial cities of the country with modern relevance, Jamshedpur is proud to host the National Welding Seminar 2024 (NWS 2024) between 12<sup>th</sup> - 14<sup>th</sup> December, 2024.

The areas of Welding and Joining are witnessing rapid technological transformation driven by advancements in new tools and techniques for predictive approaches including robust modelling and simulation, artificial intelligence, and integrated computational welding engineering-based approaches. Further, the discovery of new materials and coatings have called for extensive research and development initiatives to mitigate newer welding challenges and produce joints that can meet stringent safety norms of various industries. Conventional arc-based welding techniques have seen a surge in research and technological interest to develop higher strength welding consumables to maximize the joint efficiency, meet cryogenic applications and withstand the nemesis of hydrogen. In various joining techniques, there is an increasing trend for hybridization to harness the beneficial effects of individual process and to develop novel multi-material joints.

Additionally, the ever-increasing research interest coupled with industrialization of various additive manufacturing (AM) technologies and overlay cladding solutions for extreme environment applications have created a paradigm shift in welding science and technologies. There is a growing interest and need for new feedstock development amenable for rapid solidification-based processing, process optimization and part qualification. Significant thrust is on standardization of AM processes and parts for reliable industrial adaptation. These developments have created significant white space for research and development for the professionals and students in the fields of mechanical and metallurgical engineering, non-destructive evaluation, data science and engineering among others.



## Topics to be covered

Original research works, case studies and critical reviews are invited on the following topics:

1. Arc welding technologies
2. Resistance welding
3. Laser welding
4. Solid state welding including friction stir welding, ultrasonic welding, impact welding, etc.
5. Electron beam welding
6. Micro-welding processes
7. Adhesive joining
8. Hybrid welding technologies
9. Dissimilar welding and joining including Al-to-steel
10. Challenges and opportunities in welding of coated steels
11. Structural integrity assessment of weld joints
12. Fatigue behavior of weld joints
13. Creep and creep-fatigue interactions in welds
14. Corrosion and hydrogen embrittlement in weld joints
15. Role of welding and joining in Industry 4.0 and 5.0
16. Intelligent welding solutions
17. AI and ML in welding and joining
18. Additive Manufacturing technologies: Laser powder bed fusion, directed energy deposition: laser, arc and electron beam.
19. Modelling and simulation in welding, cladding and additive manufacturing
20. New applications of additive manufacturing
21. Failure analysis of welded joints and additively manufactured components
22. Multi-material additive manufacturing
23. Weld cladding for repair and refurbishment
24. Laser cladding alloys and technologies
25. Welding and joining of novel alloys
26. Safety aspects of welding, cladding and additive manufacturing





## Invitation to authors

Authors are invited to submit the abstract on different aspects of welding, cladding and additive manufacturing. Both fundamental and applied aspects of the abovementioned topics of cladding alloys and technologies are invited from the faculties, students including research scholars, researchers, scientists and practising engineers. Participants will benefit from the opportunity to present their works, get valuable feedback from the experts and will have the special provision to network for their future research and development.

## Guidelines for abstract submission

- The names, complete postal address, e-mail address and telephone numbers of the authors should be typed below the title in the abstract.
- Word limit: 300
- The abstract should be typed in Times New Roman Font keeping font size 12 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.
- Graphical abstract is encouraged but it is not mandatory.
- At least, one of the authors should register and be present in the conference.
- The abstract can be sent by email to [iw.jamshedpur@gmail.com](mailto:iw.jamshedpur@gmail.com)



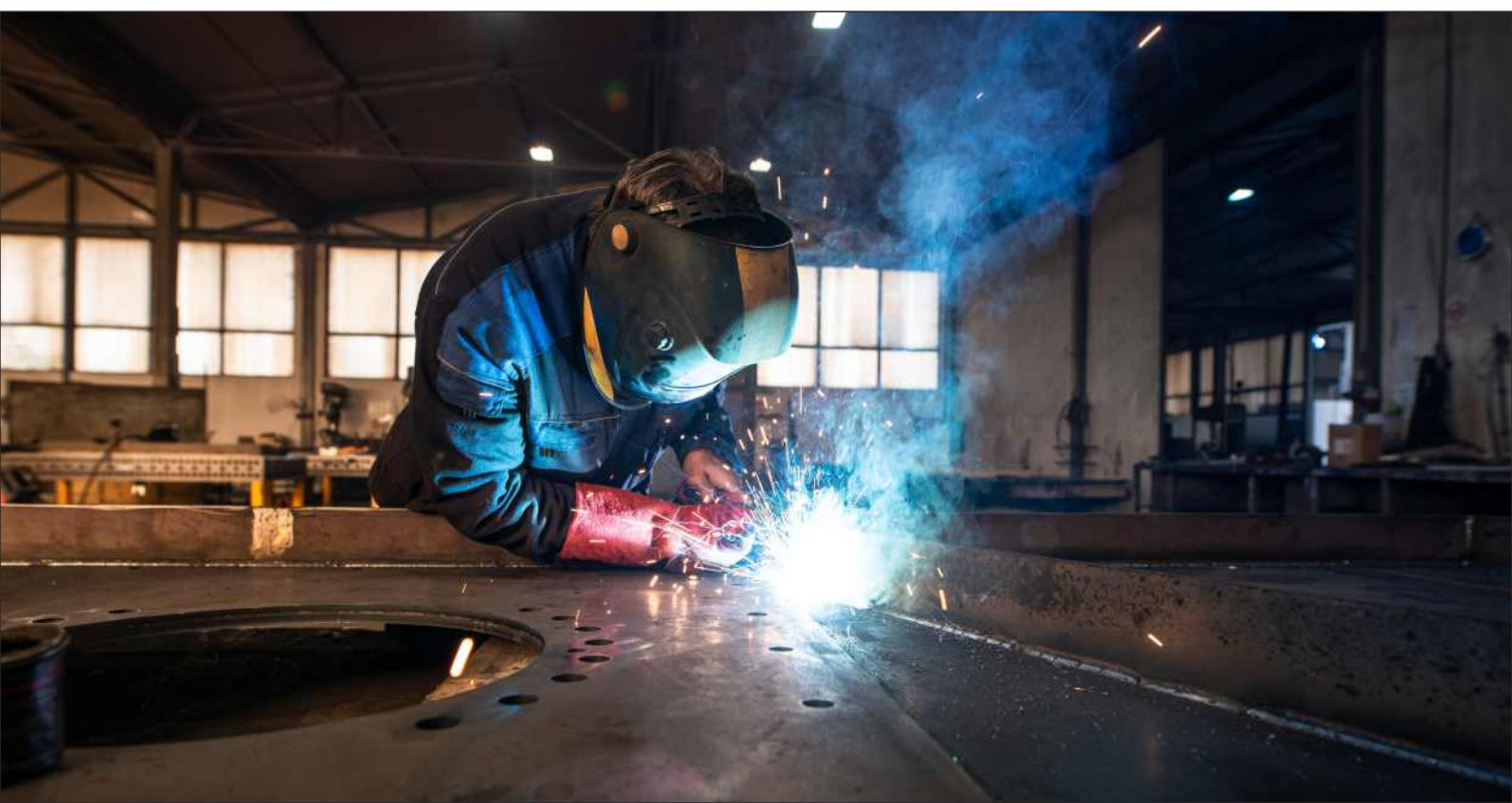
## Important Dates

Registration for Delegates	:	15 <sup>th</sup> July, 2024 onwards
Start of Abstract Submission	:	31 <sup>st</sup> July, 2024
End of Abstract Submission	:	31 <sup>st</sup> August, 2024
Review of Abstracts	:	15 <sup>th</sup> September, 2024
Notification of acceptance of Abstract	:	20 <sup>th</sup> September, 2024
Registration for Authors	:	21 <sup>st</sup> September to 15 <sup>th</sup> October, 2024
Full length Paper Submission **	:	Till 30 <sup>th</sup> November, 2024
Conference	:	12 <sup>th</sup> - 14 <sup>th</sup> December, 2024

**\*\*To be eligible for IIW-India Awards, authors will be required to submit the full-length paper in the following format:**

- The full technical paper should be maximum 6000 words, typed on A4 size paper with 20 mm margin all around.
- Main text should be typed in Times New Roman 11 font size and single spacing. The title, primary heading and secondary heading should be in bold. There should be single spacings between headings and subheadings.

Selected papers from NWS-2024 will be published in the Indian Welding Journal (the technical journal of Indian Institute of Welding, published quarterly).



## National Advisory Committee

<b>Chairman</b>	: Mr. D. V. Acharya
<b>Co-Chairman</b>	: Mr. Jose P. Philip
<b>Vice Chairman</b>	: Mr. Abby K. Joseph Mr. Rahul Sengupta Mr. T. Ravikumar Mr. B. K. Dey Mr. Vineet Mararhe
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<b>Members</b>	: Mr. R. Srinivasan Mr. Devasis Paul Mr. Ramendra Chandra Saha Prof. Santanu Das Prof. Vishvesh Badheka Prof. Amitava De Prof. Gandham Phanikumar Dr. Shaju Albert Dr. Murugaiyan Amirthalingam Dr. Anil Kumar V

### Registration Fee (including lunch and Kit)

Non-IIW members	: ₹ 3000/-
IIW members	: ₹ 1500/-
Students	: ₹ 1500/-

**18% GST Extra**

## Organizing Committee

- **Chairman:** Dr. Anand Prabhakaran
- **Secretary:** Dr. Kanwer Singh Arora
- **Convenor:** Mr. Ashok Kumar Perka
- **Co-convenor:** Mr. Nirmal Kumar B
- **Coordinator, Finance Committee:** Mr. Anil Garg
- **Coordinator, Technical Committee :** Mr. Kaushal Kishore and Dr. Mayuri Baruah
- **Coordinator, Technical Sessions and Hall Arrangement Committee:** Mr. Ram Niranjan Khushvaha and Mr. Asif Eqbal

## Sponsorship :

Sponsorship			Privileges
Category	(INR)	Complimentary Registrations	Others
Diamond	₹10,00,000	10	<ul style="list-style-type: none"><li>• One page Company Profile in the Souvenir</li><li>• One page colour advertisement in Souvenir</li><li>• Banner/Standees in Inauguration and Lecture Halls</li><li>• Logo Display on the Backdrop</li><li>• Two Exhibition Stalls at the entrance</li></ul>
Platinum	₹7,00,000	5	<ul style="list-style-type: none"><li>• One page colour advertisement in Souvenir</li><li>• Banner publicity as Platinum Sponsor</li><li>• Logo Display on the Backdrop</li><li>• Two Exhibition Stalls</li></ul>
Gold	₹5,00,000	3	<ul style="list-style-type: none"><li>• One page colour advertisement in Souvenir</li><li>• Banner publicity as Gold Sponsor</li><li>• One Exhibition Stalls at the entrance</li></ul>
Silver	₹2,50,000	2	<ul style="list-style-type: none"><li>• One page colour advertisement in Souvenir</li><li>• Banner publicity as Silver Sponsor</li></ul>

## Technical Exhibition :

Organizations can put up their products and services in display in dedicated exhibition for wide attention from the delegates of the seminar and people from various industries in and around Jamshedpur. These exhibitions can be welding, cladding and additive manufacturing related new products, assessment and characterization techniques, non-destructive evaluation and support and services. Latest advancements in the fields can be displayed in form of success stories.

**Each stall can be booked in advance by paying**

**INR 1,00,000 (+18 % GST Extra).**

## Helpdesk

Contact Person : Ms. Maushumi De  
Mobile / Whats App Number : +91 72092 87732  
Email : iiw.jamshedpur@gmail.com

## Details for Exhibition Stall:

<b>Stall Size</b>	<b>3 m x 3 m</b>
<b>Table</b>	<b>1</b>
<b>Chairs</b>	<b>2</b>
<b>Stall Lights</b>	<b>2</b>
<b>Power Board</b>	<b>1</b>



## Advertisements

It is proposed to bring out a technical Souvenir on the occasion of NWS 2024. 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
Book Mark	:	Rs. 20,000/-USD 350
Full Page Colour	:	Rs. 15,000/-USD 275
Full Page B and W	:	Rs. 10,000/-USD 200

### 5% GST Extra

Material for advertisement should be sent by email to : [iiw.jamshedpur@gmail.com](mailto:iiw.jamshedpur@gmail.com) on or before 15<sup>th</sup> September 2024.

**For Sponsorship, Advertisement and Registration as Delegate, payment may be made to the following account :**

Account	:	The Indian Institute of Welding
Account No.	:	301102010009439
Bank	:	Union Bank of India
IFSC	:	UBIN0530115
Branch	:	Bistupur, Jamshedpur

## Accommodation (Near venue : S.N.T.I)

**A List of prominent hotels within 5 km from the Seminar Venue :**

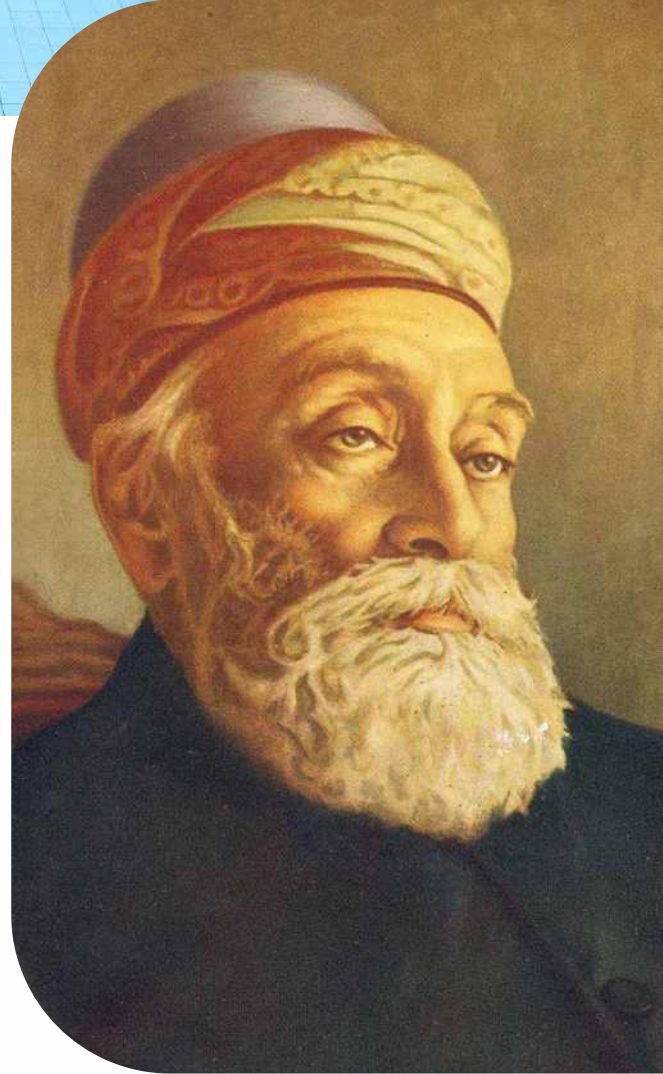
S.No.	Hotel Name	Contact Numbers
1.	Hotel Ginger	0657-666 3333/663404
2.	Lemon Tree Hotel Center Point	0657-3988444
3.	The Sonnet	0657-6619000
4.	Hotel Darshan	06572320568
5.	Hotel Nalanda	0657-2321152
6.	Hotel Siddartha	0657-2320535
7.	Hotel Boulevard	0657-2425321
8.	Hotel BS Park Plaza	0657-2321318
9.	Hotel Deodutt Place	0657-3204343,3201209
10.	Hotel JK Residency	0657-6556999/2235499
11.	Hotel Dayal International	0657-2235434-38
12.	Hotel Novanta	097983 00851
13.	Hotel Cruze	081028 00010



## About Jamshedpur

Jamshedpur is the first planned industrial city of India and houses the first private integrated steel plant of Asia, viz., Tata Steel. It is also popularly known as Steel City, Tatanagar or simply Tata. It is on the Chota Nagpur plateau and is surrounded by the picturesque greenery of Dalma hills. The city has two rivers, namely, Subarnarekha and Kharkai. The city has multi-linguistic culture with Hindi, English, Bangla, Santhali, Urdu, Magahi, Bhojpuri, Odia, Tamil and Telugu speaking people found in plenty. It has a very high literacy rate of ~89 %.The city has more than 180 schools and 13 colleges including National Institute of Technology (NIT) Jamshedpur and XLRI.

The city is one of the manufacturing hubs of the Eastern India with Tata Steel and Tata Motors as the major players with hundreds of medium and small-scale industries situated in the Adityapur Industrial area near Jamshedpur. Some of the tourist attraction near Jamshedpur includes Dalma wildlife sanctuary, Dimna Lake, Tata Steel Zoological Park, Jubilee Park, etc.



## The Venue : SNTI, Bistupur, Jamshedpur







**Registered & Head Office :**

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GSTIN: 19AAATT5926E1ZC

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TIMES