

Advances in Processing Technologies of Flat Steel



सेल SAIL **Bokaro Steel Plant** 



**BOKARO CHAPTER** 

# **International Conference on Advances in Processing Technologies of Flat Steel**

Sept. 20-21, 2024, HRD Centre, Bokaro Steel Plant, Bokaro Steel City, Jharkhand



The steel industry has embraced a range of technological advancements to improve production efficiency, reduce costs, enhance product quality, and minimize environmental impact. Automation, IoT, data analytics, eco-friendly processes, and new steelmaking techniques like hydrogen-based reduction and carbon capture are leading the way. In rolling technology, advanced mills, TMCP, inline control, and flexible rolling contribute to more efficient, and customizable steel production. These advancements collectively support a more sustainable and progressive steel industry.

Focusing on the engineering breakthroughs in design, production and processing of steel for flat product, an International Conference on "Advances in Processing Technology of Flat Steel Product " is being organized on September 20-21, 2024 at Bokaro Steel Plant, Bokaro Steel City (India). It will be jointly organized by Bokaro Chapter of the Indian Institute of Metals and Bokaro Steel Plant, an integrated steel plant under Steel Authority of India Limited (SAIL).

The International Conference on "Advances in Processing Technology of Flat Steel Product" will serve as a pivotal event for the steel industry, bringing together a diverse group of experts to explore and discuss the latest advancements in steel making, continuous casting, and flat rolling technology. It also aims to foster collaboration, share innovative research, and drive the industry towards a more efficient and sustainable future.

#### **Call for Papers**

Technical papers are invited for presentation in the conference. Authors are requested to submit the abstract and full text paper in the prescribed format to email id: iimbokarochapter@gmail.com. The accepted papers will be published in the Proceedings of the conference (with ISBN No/DOI No). At least one author should be registered as delegate.

#### Theme

Theme: A (Steel Making & Casting)	Theme: B (Hot Rolling, Characterization & Process Modeling & Simulation)	Theme: C (Cold Rolling of flat product & Coated Product & Market Scenario
Emerging trends in primary steel making HMDS	Hot Rolling of High Strength Steel Advance High Strength Steel Advanced hot rolling technology	Cold rolling of HSS/AHSS - Cold Rolling - Batch Annealing - Continuous Annealing
Secondary Refining Clean Steel Production vacuum degassing	Steel microstructures, texture, properties and characterisation	Coating Systems: Galvanizing, Galvalume, Galvannealed of Flat steel product
Continuous casting of value added steel Thin Slab Casting	Modeling and simulation of materials Application of Al and IOT Technologies Thermo-mechanical simulation of steel	Indian Market Scenario of HSS & AHSS
Decarbonization in steel making Energy scenario in steel making Towards Green Steel Production	Defects in Flat products	Advances in Maintenance Shape and size control for steel sheet hot rolling
<ul> <li>KEY THRUST AREAS OF CONFERENCE</li> <li>Steel Making and Continuous Casting</li> <li>Hot Rolling of flat product</li> <li>Cold Rolling of flat product</li> <li>Coating Technology of Flat steel product</li> </ul>	<ul> <li>Shape and size control for steel sheet hot rolling</li> <li>Defects in Flat products</li> <li>Steel microstructures, texture, properties and characterisation</li> <li>Modeling and simulation of materials/ Application of Al and IoT steel plant</li> <li>Decarbonization and Energy scenario in steel industry</li> </ul>	
Important Dates		

- Receipt of Abstract: 30th June, 2024
- Submission of full paper: 15th Aug, 2024
- Acceptance Reply: 10<sup>th</sup> July, 2024
- Registration of Author(s)/Delegate(s): 15th Sept, 2024

#### Proceedings

All selected papers received within scheduled dates, complete in all respect, will be published in the proceedings (with ISBN No/DOI No) and made available to all registered delegates at the conference site. Some of the peer-reviewed selected papers may also be published in the special issue of a reputed International Journal/ Scopus index Proceeding.

#### The Indian Institute of Metals. Bokaro Chapter

The Indian Institute of Metals (IIM) headquartered at Kolkata, India is a premier professional organization that was registered in March 1947 with the objective to promote and advance the study and practice of the science, design, engineering and technology concerned with minerals, metals, materials and their application. The Bokaro Chapter of IIM was founded by dedicated metallurgists form Bokaro Steel Plant, SAIL. The Chapter has membership strength of over 100 and has received best chapter awards in the past.

Over the years, IIM Bokaro Chapter has been organizing Conferences/Seminars/Workshops on various topics such as Special Steel-Making, Cold Rolling, Desulphurisation of Hot Metal & Utilisation of Torpedo, Blast Furnace Operation, Automotive Steel - Outlook & Perspective, Refractories in Iron and Steel Industry, etc.



#### **BOKARO STEEL PLANT**

Bokaro Steel Plant - the fourth integrated plant in the Public Sector - started taking shape in 1965 in collaboration with the Soviet Union. It was originally incorporated as a limited company on 29th January 1964, and was later merged with SAIL, first as a subsidiary and then as a unit, through the Public Sector Iron & Steel Companies (Restructuring & Miscellaneous Provisions) Act 1978.

The Plant is hailed as the country's first Swadeshi Steel Plant, built with maximum indigenous content in terms of equipment, material and knowhow. Its first Blast Furnace started on 2nd October 1972 and the first phase of 1.7 MT Ingot steel was completed on 26th February 1978 with the commissioning of the third Blast Furnace. All units of 4 MT stage have already been commissioned and the modernisation taken subsequently has further upgraded this to 4.65 MT of liquid steel.

The plant is designed to produce flat products like Hot Rolled Coils, Plates & Sheets, Cold Rolled Coils & Sheets and Galvanised Plain and Corrugated (GP/GC) sheet

#### **BOKARO STEEL CITY**

Bokaro Steel City lies amidst natural beauty on the southern bank of river Damodar. The city is bordered by the high ranges of the Parasnath Hills on the north and the Satanpur hillocks on the south. Within a short period, a village deep within the jungles of Chhotanagpur named Maraphari turned into a new city with strong multi-dimensional economic base and blossomed into a regional urban centre of around 8.0 lakh people drawn from different parts of the country, giving the city the character of Mini India.

The weather in Bokaro Steel City in September is very warm, muggy, with average highs of 87°F (30°C) and lows of 74°F (23°C). The month of September in Bokaro experiences very rapidly decreasing cloud cover and there's a 59% chance of rain on an average day.

#### **Travel & Accommodation**

Direct trains from New Delhi, Kolkata, Mumbai & Chennai are available to Bokaro. It is located centrally between three major cities- Ranchi, Jamshedpur and Dhanbad - all of which are well connected by road and railway. The nearest airport is located at Ranchi & Durgapur (WB) which is around 3 hrs by rail/road from Bokaro. The nearest international airport is at Kolkata.

Both luxury and economy category hotels are available in Bokaro that are located within 2-5 km from the Conference venue. Limited accommodation is also available at our quest house. The delegates attending the Conference are advised to book their accommodation directly in the telephone numbers listed. The organizers may provide help in case delegates find difficulty in booking accommodation.

#### Hotels at Bokaro Steel City

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Morpho Bokaro, Sec-1	+91(6542)240898
Classic Hotel, City Centre	+91(6542)233163
Hotel West Inn, Naya More	+91-8797707771
Blue Diamond, Naya More	+91(6542)240199
Aadditayaa International, City Centre	+91(6542)233641
Reliance Hotel, Naya More	+91(6542)224848
Hotel Ananda , City Centre	+91(6542)232090
Hotel Hilltop, City Centre	+91-7061502190
Hotel Veena Regency, Chas	+91-9771475412
Hotel Yuvraj Regency	+91(6542)231434
Hotel Prabhat, CHAS	+91-9234274703

(The Hotel list is only for providing assistance and not exhaustive. The delegates are advised to search for the best deal & tarrif on their own for what suit them best)

Sponsorship Amount (in INR) (+ 18%GST)	Exhibition Stall (3 X 3 <sup>2</sup> m)	Branding	Advertisement	Free Delegate
- 1000000/	$\checkmark$	$\checkmark$	Full page colour special	7
- 700000/	$\checkmark$	$\checkmark$	Full page colour	5
- 500000/	$\checkmark$	$\checkmark$	Full page colour	4
- 300000/	$\checkmark$	$\checkmark$	Full page colour	3
- 200000/	×	$\checkmark$	Full page colour	2
- 50000/	x	×	Front/Back Inside	-
- 35000/	x	×	Full page colour	-
- 70000/	$\checkmark$	×	x	-
	Amount (in INR) (+ 18%GST) - 1000000/ - 700000/ - 500000/ - 300000/ - 200000/ - 50000/ - 50000/ - 50000/ - 35000/	Amount (in INR) (+ 18%GST)       Stall (3 X 3 <sup>2</sup> m)         - 1000000/       ✓         - 700000/       ✓         - 500000/       ✓         - 300000/       ✓         - 200000/       ×         - 500000/       ×         - 300000/       ×         - 300000/       ×         - 300000/       ×         - 300000/       ×         - 300000/       ×         - 300000/       ×         - 300000/       ×	Amount (in INR) (+ 18%GST)       Stall (3 X 3 <sup>2</sup> m)       Branding         - 1000000/       ✓       ✓         - 700000/       ✓       ✓         - 500000/       ✓       ✓         - 500000/       ✓       ✓         - 300000/       ✓       ✓         - 200000/       ×       ✓         - 300000/       ×       ×         - 300000/       ×       ×         - 300000/       ×       ×         - 300000/       ×       ×         - 300000/       ×       ×         - 30000/       ×       ×         - 35000/       ×       ×	Amount (in INR) (+ 18%GST)Stall (3 X 3² m)BrandingAdvertisement-1000000/✓✓Full page colour special-700000/✓✓Full page colour-700000/✓✓Full page colour-500000/✓✓Full page colour-500000/✓✓Full page colour-500000/✓✓Full page colour-200000/×✓Full page colour- 50000/××Full page colour- 30000/××Full page colour- 30000/××Full page colour- 30000/××Full page colour

\*Order Form to be filled in online for the above options.

De	legate	Fee

Delegate ree		
Category	Indian Delegates	Foreign delegates
Corporate/Industry per head	INR 7500/ - (+18%GST) (15% discount for group of 3 or more, additional 10% discount for IIM members)	USD 150
Retired Professional / Researcher/ Academician	5000/-(+18%GST)	-
IIM Member (Non-Corporate)	5000/-(+18%GST)	-

Payment Deta	ils	:
A/c Name	:	Indian Institute of Metals, Bokaro Chapter
A/c No.	:	A/c No. 02430100006324
Bank Details	:	UCO Bank, B-13, City Centre, Sector-IV, Bokaro Steel City-827004, Jharkhand, India
IFSC Code	:	UCBA0000243
MICR No.	:	827028002
PAN No.	:	AAATT3359D
TAN No.	:	CALT03385E

**Chief Patron** Sri B K Tiwari, Director In-Charge, BSL **Patron Members** Sri Rajan Prasad, ED (P&A) with addl. Charge of ED(W) BSL Sri C R Mohapatra, ED (PROJECTS) Sri S Rangani, ED (F&A) BSL Sri J Dasgupta, ED(Mines), BSL **Steering Committee** Sri R Dhavan, CGM(MRD), BSL & Co-Chairman, IIMBC Sri Manohar Lal, CGM(Q), BSL & Co-Chairman, IIMBC Sri Deepak Roy, CGM(CRM-3), BSL Sri Lakshmi Dass, CGM(DI Sectt), BSL Sri Sharad Gupta, CGM(HSM), BSL Sri Chitta Ranjan Mishra, CGM(MM), BSL Sri Arvind Kumar, CGM(SMS-2), BSL Sri Anil Kumar, CGM(Services) BSL Sri K K Pandey, CGM(RGBS), BSL **Conference Secretariat** Convener: Sri Manohar Lal, CGM(Quality), BSL **Correspondence Details:** Shri Manohar Lal, Convener CGM(Quality), BSL

& Co-Chairman, IIM Bokaro Chapter Research & Control Laboratory, Bokaro Steel Plant, Bokro Steel City-827001, Jharkhand, India Contact No: 8986876243

Shri Santosh Kumar, DGM (RDCIS Bokaro Centre) & Jt. Secretary, IIM Bokaro Chapter RDCIS Bokaro Centre, R & C Lab Building, Bokaro Steel Plant, Bokro Steel City-827001, Jharkhand, India

Contact No. +918986880178 Whatsapp No. +918986738698

## **Tentative Program**

20.09.2024, 9:00 AM - 13:15 PM: Venue: HRD Building/ Auditorium

9:00 AM- 10:00 AMRegistration10:00 AM-11:00 AMInaugural Session11:00 AM- 11:30 AMInaugural Ceremony of Technical Exhibition11:30 AM-12:00PMHigh Tea12:00 PM-12:30 PMPlenary Talk-1		
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	11:00 AM- 11:30 AM	-
12:00 PM-12:30 PM Plenary Talk-1	11:30 AM-12:00PM	High Tea
	12:00 PM-12:30 PM	Plenary Talk-1
12:30 PM-13:00 PM Plenary Talk-2	12:30 PM-13:00 PM	Plenary Talk-2
13:00 PM- 14:30 PM Lunch	13:00 PM- 14:30 PM	Lunch

Day-1 14:30 PM-17:30 PM Technical Session

14:30 PM-18:00 PM

Session-1A/1B/1C / Session-2A/2B/2C

19:30 PM onward : Cultural Program Cum Dinner

#### 21.09.2024, 9:00 AM-13:00 PM Technical Session : Conference Room

9:00 AM-13:00 PM

Session-3A/3B/3C / Session-4A/4B/4C

### Day-2: 13:00 PM -14:30 PM Lunch

Day-2 Valedictory session with Panel Discussion

14:30 PM - 15:30 PM

Panel /Expert Discussion-1 15:30 PM - 16:00 PM

**Concluding Session** 

16:00 PM: End of the Conference with High Tea

