



11th EDITION | VIRTUAL CONFERENCE

MINING TECHNOLOGY IN INDIA

Emerging Technologies, Outlook and Opportunities

April 21-22, 2022

Organiser:



Co-sponsor:



Digital transformation partner:



MISSION

- The mining industry is evolving rapidly with the adoption of new-age digital technologies and state-of-the-art mining solutions.
- As mining companies are moving towards net zero emissions and aligning mining practices with their environment, social and corporate governance goals, the adoption of sustainable and energy efficient mining practices and solutions is increasing. Besides this, technology advancements in mining practices are gaining traction to improve the health and safety environment for mine workers, reduce operating costs and enhance the productivity of assets and efficiency of operations.
- On the policy front, the much-awaited MMDR (Amendment) Act, enacted in March 2021, has eased the rules for mining to attract greater investments. The new rules are expected to allow captive miners to sell up to 50 per cent of their production (after meeting the requirements of the end-use plant), provide flexibility to the miners and maximise output from captive mines. Furthermore, removing restrictions on the transfer of mineral concessions will promote greater investment in new technology solutions. Overall, by providing a level-playing field to private players, the new rules will increase the pace of exploration and promote advanced technology in mineral exploration.
- One of the mining solutions adopted to modernise and optimise operations is in-pit crushing conveyor (IPCC) systems. It is an energy-efficient solution for hauling ore, overburden and waste from open-cast mines. Despite a high upfront cost, in an IPCC system, the miners benefit from a significant reduction in the truck requirement for haulage, associated ancillary equipment fleet requirement and on-site emissions.
- Apart from this, real-time data acquisition through IoT-based smart sensors (conveyors, HEMM, CHP, etc.) is becoming an integral part of mining operations. With this, the mining companies are transitioning to predictive maintenance practices, and are undertaking remote monitoring and automation of mining operations. The mining companies are also deploying geospatial technologies such as UAV-based sensors, digital photogrammetry and geospatial telemetry for better mine planning and operations.
- Meanwhile, emerging technologies such as blockchain, AI, ML and robotics are finding applications in mining activities such as drilling, blasting, excavation and ore hauling. AI-powered robotic devices are being used to perform core activities such as drilling, blasting, loading and hauling. Other new digital solutions are also impacting several areas of mining, with leading companies exploring technologies such as remote sensing, 3-D printing, simulations and augmented reality to improve productivity.
- Mine electrification, powered by renewable energy, is being undertaken for the clean energy transformation of mining operations. Battery-operated vehicles, which entail zero carbon emissions, are being used in mining operations.
- That said, the adoption of new and emerging mining technologies faces a number of hurdles. These include lack of skilled manpower, small scale of mining operation, cultural inertia, substantive upfront investments and intangible benefits in the short run. Besides, with the growing interconnectedness of various mining equipment and processes, there is a need for greater data privacy and stringent cybersecurity measures in the segment.
- **The mission of the two-day conference is to discuss the new and emerging mining technologies, highlight the key challenges and potential solutions, and deliberate upon the global best practices and lessons for India. The conference will also showcase the best practices and noteworthy projects and technologies.**

TENTATIVE CONFERENCE PROGRAM

www.indiainfrastructure.com

KEY TRENDS AND OUTLOOK

- ❖ What is the current state of the mining sector in India?
- ❖ What are the recent trends and developments with regard to technology deployment?
- ❖ What are the new and emerging opportunities? What is the outlook?

GOVERNMENT PERSPECTIVE

- ❖ What have been the key recent policy developments in the mining industry?
- ❖ What initiatives are planned to promote new technology adoption?
- ❖ What are the key challenges? How can they be addressed?

INDUSTRY SHOWCASE AND BEST PRACTICES

(This session will feature presentations from leading mining players on their technologies and projects)

- ❖ What are the new and emerging technologies being deployed?
- ❖ What are the key benefits derived? What are the best practices?
- ❖ What are the key issues and challenges? What is the outlook?

The minerals covered will include:

Coal | Iron ore | Zinc | Bauxite | Other minerals

IoT, AI, ML AND ROBOTICS

- ❖ What are the key features of intelligent equipment being used in the Indian mining segment?
- ❖ What has been uptake of AI, ML and robotics? How has been the industry experience?
- ❖ What has been the experience globally? What are the lessons for India?

REMOTE SENSING, GIS AND DRONES

- ❖ How has asset monitoring and mine survey evolved with the use of drones?
- ❖ What has been the uptake of GIS and remote sensing-based solutions?
- ❖ What has been the experience globally? What are the lessons for India?

MINE SAFETY

- ❖ What are the new and emerging technologies/solutions for improving mine safety?
- ❖ What has been the experience so far? What are the key issues and challenges?
- ❖ What are the global best practices/advancements?

PROMISE OF BLOCKCHAIN

- ❖ What is the potential of blockchain technologies in the mining segment?
- ❖ How has been the global experience?
- ❖ What are the key issues? What is the outlook?

COMMUNICATION SYSTEMS

- ❖ What are the best suited communication systems for the Indian mining segment?
- ❖ What are the new and emerging requirements?
- ❖ What are the key issues and challenges?

FOCUS ON CLEAN AND SUSTAINABLE MINING

- ❖ What are the currently deployed green/sustainable mining practices?
- ❖ What are the key issues and challenges? What is the future outlook?
- ❖ What are the global advancements? What are the lessons for India?

CONVEYOR SYSTEMS, MATERIAL HANDLING AND FLEET MANAGEMENT FOR MINING

- ❖ What are the key requirements of the mining sector for conveyor systems?
- ❖ What has been the industry experience with regard to in-pit crushing and conveyor systems?
- ❖ What are the new and emerging conveyor technologies for surface and underground mining?
- ❖ What is the future outlook? What are the key challenges?

SATELLITES AND REMOTE TRACKING

- ❖ What are the key applications of satellite and remote tracking solutions in the India mining segment?
- ❖ How has been their uptake so far?
- ❖ What is the future outlook? What are the key issues and challenges?

SURFACE MINING

- ❖ What are the new and emerging technologies for surface mining? How has been their uptake so far?
- ❖ What are the key issues and challenges? What is the future outlook?
- ❖ What are the global best practices/advancements?

DRILLING AND BLASTING

- ❖ What are the new and emerging technologies for drilling and blasting? How has been their uptake so far?
- ❖ What are the key issues and challenges? What is the future outlook?
- ❖ What are the global best practices/advancements?

IN-PIT CRUSHING CONVEYOR SYSTEMS

- ❖ What has been the industry experience with regard to in-pit crushing and conveyor systems?
- ❖ What are the key issues and challenges? What is the future outlook?
- ❖ What are the global best practices/advancements?

FOCUS ON UNDERGROUND MINING

- ❖ What is the current state of underground mining? What are the latest technologies and solutions being used?
- ❖ What are the key issues and challenges? How can these be addressed?
- ❖ What are the global best practices/advancements?

MINE DESIGN, SURVEY AND EXPLORATION

- ❖ What are the key considerations for mine design and planning?
- ❖ What are the new and emerging technologies for mine survey and explorations?
- ❖ What are the key issues and challenges? What is the future outlook?
- ❖ What are the global best practices/advancements?

WATER AND WASTE MANAGEMENT IN MINING

- ❖ What are the best practices for efficient water management in mining?
- ❖ What are the current wastewater treatment/ZLD practices?
- ❖ What are the key issues and challenges? What is the outlook?

FOCUS ON CYBERSECURITY AND DATA PRIVACY

- ❖ What are the issues and concerns associated with data security and protection?
- ❖ What are the new and emerging solutions for managing the cybersecurity risks?
- ❖ What are the global advancements in cybersecurity? What lessons can be learnt?

TARGET AUDIENCE

The conference is targeted at top and middle-level managers from:

- ❖ Mine developers and operators
- ❖ Coal producing/mining companies
- ❖ Iron-ore producing/mining companies
- ❖ Other non-metallic ore producers
- ❖ Mineral development corporations
- ❖ Equipment manufacturers (drilling and blast; excavation and loading; crushing and grinding)
- ❖ Fleet management companies
- ❖ Geospatial survey technology providers
- ❖ Equipment leasing and finance companies
- ❖ Geological survey companies
- ❖ Design and engineering consultancies
- ❖ Mine safety solution providers
- ❖ Conveying systems
- ❖ Inspection agencies
- ❖ Other technology providers
- ❖ Other equipment manufacturers (motors, pumps, gensets, trucks, etc).

PREVIOUS PARTICIPANTS

The organisations that have participated in our previous conferences on "Mining Technology in India", "Digital Technologies in Mining" and "Conveying Systems" have included AAC Mining, ABB, Adani Mining, AECOM, Aggreko, Altair, Andritz, Ashok Leyland, Atlas Copco, Australian Trade Commission, BASF, BEML, Bentley Systems, Bharat Forge, Bray Controls India, Brunel India, CAEZEN Technologies, Capstone Geoconsultants, Castrol, Caterpillar, Central Institute of Mining & Fuel Research, Central Mine Planning & Design Institute, CLP Power, Coal India, Cummins, Deloitte, Dextra, DSP Merrill Lynch, DuPont, Eastern Coalfields, EDF, EDS Technologies, EICL, EimcoElecon, Elecon EPC, Elliot Geophysics, Engineers India Limited, Epiroc Mining, ERM Consultants, Ernst & Young, Essel Mining, Exxon Mobil Lubricants, FL Smidth, Fugro Geotech, Gates India, GE Transportation, Geo Constech, Gmmco, Geomine Envirotech Consultancy, Government of Western Australia Trade and Investment Office, GSECL, Hazemag, High Commission of Canada, Hindalco Industries, Hindustan Copper, Hitachi, Hyundai Construction Equipment India, ICRA, IMFA, Indian Rare Earths, Inspectorate Griffith, JCB, Jenissi Management Consultants, Jindal Steel & Power, Keltech Energies, Kirloskar Brothers, KSK Minerals, Larsen & Toubro, Maccaferri, Maco Corporation, Magnum Minerals, MAN Trucks, Marsh India, Metso Minerals, Megaplast, Ministry of Coal, Ministry of Mines, Geological Survey of India, Modular Mining System, Monnet Ispat & Energy, Nalco, NLC, Nina Concrete, NMDC, Normet Underground Solutions, Northern Coalfields, NTPC, Oriental Rubber, Polycab Wires, PRD Rigs, PricewaterhouseCoopers, PTC, Putzmeister Solid Pumps GmbH, PWC, Queensland, Government Australia, Rashtriyaspat, Rio Tinto, Ringspann, Roto Pumps, Safire Capital Advisors, Sagta, Sandvik, Shree Cement, Siemens, Singareni Collieries, South Eastern Coalfields, Strategic Decisions Group, TAM Construction Chemicals, Tata Steel, Tata Hitachi Construction Machinery, Technip, Tenova Delkor, THDC, Thiess India, Thriveni Earthmovers, ThyssenKrupp Industries, TIL, TIQ, Trade & Investment, TMEIC, Tractors India, Trafalgar EPC, Utkal Alumina International, VE Commercial Vehicles, Vedanta, Vermeer Equipment, Virginia Mining Resources, Volvo, Weir Minerals, Western Coalfields, Wipro, Xylem Water Solutions, etc.

The Mining Technology APAC conference that we organised in December 2021 had a great response with delegate participation from: Hindustan Zinc, NMDC, Northern Coalfields Limited, Odisha Electricity Regulatory Commission, Pentagon Rubbers, Prakrthi Geospatial Solutions, PT Tigadaya Minergy, RINGSPANN GmbH, RSMML, Rulmeca Germany, RWE, Sandeep Mech Engineers, Sandvik, Sempertrans, Singareni Thermal Power Project, Sujyoti, Syscon, Tata Steel, Teijin Aramid, THDC, The Singareni Collieries, ThyssenKrupp Industries, Timken, Vermeer Asia Pacific, VIN METAL GROUP, Voith Turbo, VSK University.

PREVIOUS SPEAKERS

Our previous speakers include (in alphabetic order):

- ❖ **R.K. Amar**
GM, Business Development Department, CMPDI
- ❖ **Ramesh Behari Mathur**
President, BD and Mining Strategy, Virginia Mining Resources
- ❖ **Mainak Charkarborty**
Vice President, Mines, Hindalco
- ❖ **Binay Dayal**
Director Technical, Coal India Limited
- ❖ **Dipesh Dipu**
Founder and Partner, Jenessi Consultants
- ❖ **Neeraj Gupta**
Asset Management Solution Leader, APAC, IBM
- ❖ **Christian Guttman**
Sales, Hectronic
- ❖ **Rajesh Ivaturi**
Partner, PwC
- ❖ **Rajneesh Kumar**
General Manager, Geomatics, CIL
- ❖ **Ramesh Kumar**
Head of Data Science & Centre of Excellence, Tata Steel
- ❖ **Vinod Kumar**
SBU Director - Agucha Cluster, Hindustan Zinc
- ❖ **Pradeep Mahajan**
Lead, Digital Transformation, HZL
- ❖ **Hara Prasad**
DGM, IT and Project Manager, SCCL
- ❖ **Bhanu Rahoni**
Director, Government of Western Australia
- ❖ **Shobha Raikar**
Chief Innovation and Digital Officer, Sesa Goa Iron Ore Business
- ❖ **Kishore S.**
SBU Director, HZL
- ❖ **B. Sahoo**
Executive Director, Production, NMDC
- ❖ **Dr Martin Schmid**
Senior Mining Engineer, RWE Technologies
- ❖ **Praveen Sharma**
Chief Operating Officer, Zinc - Hindustan Zinc Limited
- ❖ **Randip Singh**
GM, CMPDI
- ❖ **Srinivas Tangudu**
Director Data Analytics, Altair

ORGANISER

The conference is being organised by **India Infrastructure Publishing**, a leading provider of information on the infrastructure sectors through conferences, magazines, reports and directories. The company publishes **Indian Infrastructure** (a magazine devoted to infrastructure policy and finance) and a series of research reports on the mining sector including **Mining in India** and **Mining Equipment Market Projections, Coal-Based Power Generation** and **Logistics in India**.

India Infrastructure has successfully organised and delivered **10 editions** of the “**Mining Technology in India**” conference and the first edition of “**Mining Technology APAC**” in **December 2021**. The conferences witnessed participation from all key stakeholders. The company also organises annual events on **Coal in India** and **Conveying Systems**.

DELEGATE FEE

No. of delegates	Base price	Discounted price	With GST	USD	Discounted USD Price
1	12,000	8,400	9,912	200	140
2 to 3	20,000	14,000	16,520	325	230
4 to 5	28,000	19,600	23,128	450	315
6 to 9	36,000	25,200	29,736	575	405
10 to 20	44,000	30,800	36,344	700	500

- GST @18 per cent is applicable on the registration fee.
- Registration will be confirmed on receipt of the payment.

TERMS AND CONDITIONS

Payment Policy

- ❖ Full payment must be received prior to the conference. For discounted rates, the payment must be received on or before the discount expires.
- ❖ Substitution and name changes are welcome at no extra charge.

GET IN TOUCH

For registration and sponsorship opportunities:

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