



भारतीय प्रौद्योगिकी संस्थान (भारतीय खनि विद्यापीठ), धनबाद Indian Institute of Technology (Indian School of Mines), Dhanbad

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PRESS-RELEASE

Coal India Limited, IIT(ISM) Dhanbad, and TEXMiN Forge Strategic Alliance to Establish "IMiN - Innovation on Mining" Center of Excellence for Mining 4.0

- This collaboration will focus on developing innovative technologies and research infrastructure in niche areas of national and international importance.
- The IMiN Center of Excellence aims to enhance mining productivity, safety, and sustainability by integrating advanced digital solutions and driving digital transformation in mining through CPS-based technologies.

Coal India Limited (CIL) has entered into a landmark collaboration with the Indian Institute of Technology (Indian School of Mines), Dhanbad [IIT(ISM)], and the Technology Innovation in Exploration and Mining Foundation (TEXMiN) through the signing of a Memorandum of Understanding (MoU), aiming to revolutionize the Indian mining sector by leveraging cutting-edge technologies.

As a result of this collaboration, CIL will enable IIT(ISM) Dhanbad and TEXMiN to establish the "IMiN - Innovation on Mining" Center of Excellence for Mining 4.0 at TEXMiN, IIT(ISM) Dhanbad. This state-of-the-art center will serve as a pivotal hub for fostering start-up ecosystems, capacity building, and advancing technology and process development. The primary goal will be to unlock the full potential of digital transformation in the mining and metals sector, steering it towards a more sustainable and efficient future.

The IMiN Center of Excellence will not only pioneer digital solutions but also act as a catalyst in addressing the core challenges faced by CIL. By integrating Cyber Physical System (CPS)-based technologies, IMiN will focus on modernizing mining methods, thereby enhancing productivity, improving safety standards, and advancing the overall sustainability of mining operations.

Shri P M Prasad, Chairman-cum-Managing Director of Coal India Limited, emphasized the strategic importance of this initiative, stating, *"IMiN would be a vital strategic asset to serve as the primary vehicle for managing complex change initiatives for implementing Mining 4.0 in the Indian mineral sector using CPS-based technologies with a vision to Create a best practices hub for mine digitalization of the entire mining value chain and adoption of the latest digital technologies including the department of mines, mine operators, students, research community and start-ups"*.

The MoU was signed on behalf of Coal India Limited by Dr. B. Veera Reddy, Director (Technical) in the august presence of Shri P. M. Prasad, Chairman-cum-Managing Director, who was accompanied by a distinguished group of dignitaries, including:

- Shri Alok Lalit Kumar, Executive Director (Production),
- Shri Chaudhary Shivraj Singh, General Manager (Corporate Planning),
- Dr. Achyut Ghatak, Director (Technical/RD&T), CMPDI Ranchi, *and several other prominent officials from Coal India Limited.*

Representing TEXMiN IIT(ISM) Dhanbad, Prof. Sukumar Mishra, Director, IIT (ISM) Dhanbad & Chairman, HGB & BoD, TEXMiN, signed the MoU. He was joined by:

- Prof. Dheeraj Kumar, Project Director TEXMiN & Deputy Director, IIT(ISM) Dhanbad
- Prof. R. M. Bhattacharjee, Additional Director, TEXMiN & Dean IRAA, IIT(ISM) Dhanbad
- Suraj Prakash, CEO, TEXMiN



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- Muhammad Danish, CBDO, TEXMiN

Prof. Sukumar Mishra, Director, IIT (ISM) Dhanbad & Chairman, HGB & BoD, TEXMiN, highlighted the broader vision of the initiative, *“Today, sustainability, traceability and safety are paramount for mining organizations. This can only be achieved by accelerating their digital transformation journey and integrating the entire value chain from the mine to the plant and port. There is also a need to identify the right talent from campus at an early stage for Industry and then align them with our future business requirements to bridge the gap between academics and industry. Establishing IMiN will help transform the mining communities to be more sustainable, efficient, safe, and resilient.”*

Prof Dheeraj Kumar, Project Director TEXMiN & Dy. Director, IIT(ISM) Dhanbad added, *“We strongly believe the initiative of cyber-physical systems in the Indian mining context can take us a step further inefficiency in the mining chain, development of new technology and use of AI / ML/data analytics can help the local mining ecosystem to come out with technologies and processes to optimize mining operations and increase efficiency. We at TEXMiN, IIT(ISM) believe in and support CIL as an industry partner. We are confident that a small step of ours in the form of IMiN will be a stepping-stone for the endeavor and create a difference in society through operation and process optimization.”*

This collaboration marks a significant step towards the digital transformation of India’s mining sector, positioning the IMiN Center of Excellence as a key driver of innovation, sustainability, and industry-academia collaboration. The combined efforts of Coal India Limited, IIT(ISM) Dhanbad, and TEXMiN promise to set new benchmarks in Mining 4.0, paving the way for a future-ready mining industry in India.

About Coal India Limited (CIL): Coal India Limited (CIL), the state-owned Maharatna coal mining corporation, came into being in November 1975. CIL is an apex body with seven wholly owned coal-producing subsidiaries and one mine planning and Consultancy Company (CMPDI) spread over eight states of India.

About IIT(ISM) Dhanbad: Indian Institute of Technology (Indian School of Mines), Dhanbad, was established in 1926 and converted into a full-fledged IIT on September 6, 2016, after an amendment in the Institutes of Technology Act, 1961 (institution of National Importance). The Ministry of Education financially and administratively controls the institute. The Institute has over 98 years of legacy in Mining, Mineral and Petroleum Engineering, Earth Sciences, and allied subjects. It has 18 full-fledged departments offering undergraduate, postgraduate, and doctoral-level courses.

About TEXMiN: TEXMiN (Technology Innovation in Exploration & Mining) Foundation is a Section 8 company, the Mining Technology Innovation Hub of IIT (ISM) Dhanbad, established by the funding support of DST, Govt under the NMICPS mission. It aims to address the issues and challenges of the mining and exploration industry through the intervention of CPS-based technologies. The Director, IIT (ISM) Dhanbad, is the Chairman of the Board.

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