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PRESS-RELEASE

IIT (ISM) Dhanbad Heralds a New Epoch in Mining with the Grand Inauguration of DIGMIN 2025: A Centenary Confluence of Digital Intelligence, Green Mining, and Global Thought Leadership

In a historic confluence of ideas, innovation, and intellectual grandeur befitting the illustrious **centenary year of the Indian Institute of Technology (Indian School of Mines) Dhanbad**, the Department of Mining Engineering today inaugurated the **two-day International Conference on *Digital Intelligence for Green Mining and Industrial Networks (DIGMIN 2025)*** at the hallowed precincts of the Golden Jubilee Lecture Theatre. Held on the 12th and 13th of September, this monumental congregation of global thought leaders, eminent researchers, and industry stalwarts heralded the dawn of India's premier academic conclave exclusively **devoted to the epochal themes of *Mining 5.0* and the six foundational principles of *Safety, Sustainability, Smartness, Standardization, Simulation, and Synergy***.

The proceedings commenced in ceremonial solemnity with the traditional lighting of the lamp, performed by the **Chief Guest, Shri Joydeep Dasgupta, Director (Production), NMDC Limited, whose dignified presence illuminated the spirit of the occasion, flanked by distinguished Guests of Honour—Prof. Neelima Satyam from IIT Indore and Dr. Pedram Masoudi of Datamine/Geovariances, France—alongside the august presence of Prof. Dheeraj Kumar, Deputy Director of IIT (ISM) Dhanbad, Prof. B. S. Choudhary, Head of the Department of Mining Engineering, Prof. Anindya Sinha, Convener of DIGMIN 2025, and Prof. Siddharth Agarwal, Co-Convener of the conference.**

In his inaugural oration, Shri Joydeep Dasgupta, in eloquent cadence, declared that the future of mining lies indelibly intertwined with digital intelligence and the verdant philosophy of green mining. He extolled the foresight of IIT (ISM) in curating a conclave that is, in his words, *ahead of its time,* envisioning the seamless integration of Artificial Intelligence, digital technologies, and sustainable practices into the mining industry. He emphasized that the progress of the sector is not the product of isolated endeavours but of synchronized cogs in a unified wheel propelling transformative change.

Guest of Honour Prof. Neelima Satyam, in her resonant address, lauded the pioneering undertakings of the Mining Technology Innovation Hub, TEXMiN, and reflected upon the critical role of digitization in strengthening mining as the backbone of national development. She urged the fraternity to embrace the rapid metamorphosis of technology, observing that the deliberations of DIGMIN 2025 shall prove seminal in charting new directions for research, innovation, and industry collaboration.

The Deputy Director of IIT (ISM), Prof. Dheeraj Kumar, himself an ardent advocate of digital transformation, enlightened the gathering on the evolutionary trajectory from Mining 4.0 to Mining 5.0, illustrating the transition from mere data visualization to the creation of dynamic, real-time metaverse environments that can digitally replicate, monitor, and control mining operations. His reflections underlined that digital intelligence is not a distant aspiration but a present reality, evidenced by Indian mines already adopting centralized control centres and private IT systems to optimize efficiency and safety.

Prof. Anindya Sinha, Convener of DIGMIN 2025, in his welcome address, highlighted the significance of the conference in providing a global platform where academia, industry, policymakers, and innovators converge to shape a mining sector that is efficient, decarbonized, and technologically advanced. He emphasized that the deliberations here would contribute not only to mining's digital revolution but also to the broader objective of balancing industrial progress with environmental stewardship.
Echoing this vision, Prof. B. S. Choudhary, HoD of the Department of Mining Engineering and Chairman of the Organizing Committee, asserted that the very essence of DIGMIN 2025 is the acceleration of the mining sector's digital transformation through the harnessing of disruptive technologies—ranging from Artificial Intelligence and

IoT to distributed ledger systems and critical mineral mapping—ensuring safer, smarter, and more sustainable mining practices for generations to come.

The scholarly spirit of the day was further enriched by profound keynote discourses delivered by globally renowned experts, including Prof. Rajive Ganguli of the University of Utah on *Thoughtfulness – The Key to Opportunities in AI,* Prof. D. C. Panigrahi, Chairman of PMRC and former Director of IIT (ISM), on *Design and Implementation of Ventilation Systems in Large and Complex Mines,* Prof. Neelima Satyam on *Numerical Modelling of Mine Dumps under Dynamic Loading,* and Prof. Alok Porwal of IIT Bombay on *Exploration Targeting of Critical Metals through Geo-AI Approaches.*

DIGMIN 2025, which has attracted over 150 technical papers from across India and abroad, stands as a lodestar in the annals of mining conferences, dedicated to weaving together the threads of digitalization, automation, and sustainability into a fabric that will define the mining ecosystem of tomorrow. With its expansive vision encompassing AI/ML-driven risk prediction, robotics in harsh mining environments, IoT-enabled automation, and energy-efficient processes, the conference aspires to create a collaborative milieu where public institutions, private enterprises, and emerging startups unite in dialogue, debate, and discovery.

As the resonant applause marked the conclusion of the inaugural day, it became abundantly clear that DIGMIN 2025 is not merely a conference but a clarion call—an academic and industrial symphony—committed to scripting a future where mining harmonizes with digital intelligence and ecological responsibility, an endeavour most befitting of IIT (ISM) Dhanbad's centenary celebration of a glorious legacy of one hundred years of excellence, innovation, and nation-building.

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