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PRESS-RELEASE

IIT (ISM) Dhanbad Concludes Six-Day Online Course on Critical Minerals with Valedictory Session

The Department of Petroleum Engineering, IIT (ISM) Dhanbad, today concluded a six-day online short course on *"Sustainable Pathways in Critical Mineral Development: From Discovery to Delivery"* (September 1–6, 2025). The program brought together eminent academicians, industry leaders, researchers, and students to deliberate on the strategic role of critical minerals in driving India's sustainable energy transition and technological advancement.

The valedictory session was graced by **Prof. A.K. Mishra, Director, CSIR–Central Institute of Mining and Fuel Research (CIMFR), Dhanbad**, who attended as the Chief Guest. Prof. Mishra lauded the initiative of IIT (ISM) Dhanbad in fostering research, innovation, and capacity building in the rapidly emerging domain of critical minerals. He emphasized the need for scientific and technological leadership to unlock India's mineral potential and reduce dependence on imports, aligning with the vision of *Atmanirbhar Bharat*.

Earlier, the course was inaugurated by **Shri Rajesh Kumar, Group General Manager, Bombay High, ONGC**, who underlined the significance of critical minerals such as lithium, cobalt, nickel, rare earth elements, and graphite for advancing clean energy systems, defence preparedness, and industrial innovation. He commended IIT (ISM) for taking a proactive role in knowledge dissemination and industry-academia collaboration.

Over the six days, the course featured lectures by distinguished experts from India and abroad, covering specialized themes ranging from advanced exploration and extraction techniques to circular economy approaches for recycling and waste-to-wealth innovations. Notable speakers included **Dr. Vilas Tathavadkar (Hindalco Industries Ltd.)**, **Prof. S. Bhattacharya (Monash University, Australia)**, **Prof. Sarma V. Pisupati (Penn State University, USA)**, **Dr. Sanjay Kumar (CSIR-NML, Jamshedpur)**, **Dr. Sudip Maity (CSIR-CIMFR, Dhanbad)**, and others.

Prof. Vikas Mahto, Head of the Department of Petroleum Engineering and Course Coordinator, noted that the initiative would help build national capacity across the critical mineral value chain, from exploration and processing to applications and recycling. Co-coordinators **Prof. Mohammed Hamid Siddique** and **Prof. Chandan Sahu** highlighted the growing need for interdisciplinary approaches and industry partnerships to shape India's mineral roadmap.

The program attracted strong participation from undergraduate and postgraduate students, research scholars, academicians, and industry professionals nationwide, underscoring the rapidly growing interest in this sector.

As Jharkhand and Dhanbad gain prominence on India's critical minerals map, IIT (ISM) Dhanbad is well positioned to lead in training, research, and innovation. By equipping skilled manpower and fostering collaborative networks, the institute aims to pave the way for new technologies, sustainable practices, and policies that will strengthen India's path toward self-reliance in the mineral sector.

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