

For Immediate Release: October 13, 2025

## **Press-Release**

### **Padma Bhushan Dr. V. K. Saraswat Inaugurates National Conference on Critical Metals (CRISP-2025) at IIT (ISM) Dhanbad**

*Focus on Building India's Self-Reliant Ecosystem for Critical Minerals*

The Indian Institute of Technology (Indian School of Mines), Dhanbad, inaugurated the **National Conference on Critical Metals: Recycling, Innovation, Separation and Processing (CRISP-2025)** today at the Golden Jubilee Lecture Theatre (GJLT). The three-day event (13th–15th October 2025) brings together leading scientists, policymakers, and industry experts to deliberate on sustainable strategies for extraction, processing, and recycling of critical minerals that are vital for India's clean energy and technology-driven future.

**Padma Bhushan Dr. V. K. Saraswat**, Member, **NITI Aayog**, Government of India, graced the inaugural ceremony as the **Chief Guest**. In his address, Dr. Saraswat emphasized the *urgent need for India to develop a self-reliant, technologically advanced ecosystem for critical mineral extraction, recovery, and recycling*. He underlined that achieving self-sufficiency in critical minerals such as lithium, cobalt, nickel, and rare earth elements is vital for India's transition toward clean energy and high-tech manufacturing.

Dr. Saraswat highlighted the importance of **secondary resource valorization, advanced solvent extraction, bio-leaching, and AI-driven process monitoring systems** in developing next-generation refining technologies. He proposed the establishment of **dedicated pilot plants at IIT (ISM) Dhanbad** and the inclusion of **critical mineral processing and solvent extraction courses** in academic curricula to develop skilled human resources. Calling for stronger **industry–academia collaboration**, he stressed that transforming laboratory innovations into industrial applications would accelerate India's progress toward a circular economy. Referring to the **\$400 billion global market** for lithium and allied metals, Dr. Saraswat noted that *innovation, interdisciplinary research, and timely technological intervention are key to making India a global hub for critical minerals*.

Delivering the **inaugural address**, **Prof. Sukumar Mishra, Director, IIT (ISM) Dhanbad**, spoke about the growing global importance of critical minerals in securing a sustainable energy future. He expressed pride that **IIT (ISM)** has been designated as a **Centre of Excellence in Critical Mineralisation** and that the **India–UK Critical Minerals Observatory**, recently announced by the Hon'ble Prime Minister, will be set up at the institute.

Drawing an analogy between control systems in engineering and critical mineral management, Prof. Mishra emphasized the need for *adaptive, analytical, and data-driven frameworks for "control actuation"* in critical mineral operations. He urged researchers to lead India's clean energy transition through innovation, collaboration, and resilience and commended the conference organizers for fostering discussions that will shape India's critical mineral roadmap.

The ceremony was also attended by **Prof. Dheeraj Kumar, Deputy Director, IIT (ISM) Dhanbad**. The inaugural session began with the **lighting of the ceremonial lamp**, followed by a **welcome address by Prof. Aarti Kumari, Convener, CRISP 2025**, and **remarks by Prof. Shatrughan Soren, Head, Department of Fuel, Minerals & Metallurgical Engineering**, who highlighted the department's continuing efforts in sustainable mineral research. **Dr. D. K. Singh, Advisor, CRISP 2025**, introduced the Chief Guest, and **Prof. Vishnu Teja Mantripragada, Co-Convener, CRISP 2025**, delivered the **vote of thanks**, acknowledging the efforts of all contributors and participants.

The inaugural event also featured the **unveiling of the Book of Abstracts** and **felicitation of the dignitaries**. The conference will continue till October 15 with plenary talks, expert lectures, and technical sessions focusing on **innovation, sustainability, and circular economy in critical metals research and processing**.

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