

## Union Minister G Kishan Reddy Inaugurates, Center of Excellence and Virtual Reality Mine Simulator at IIT (ISM) Dhanbad

### Minister Interacts with Students of IIT (ISM) Dhanbad; Discusses Innovation and Sustainability

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Union Minister of Coal and Mines Shri G Kishan Reddy, who is on a two day visit to Jharkhand, today inaugurated the Center of Excellence under National Critical Minerals Mission hosted in IIT (ISM) Dhanbad. Minister Shri Reddy also inaugurated the Virtual Reality Mine Simulator (VRMS). Shri Reddy interacted with the students of IIT (ISM) Dhanbad, which turned into a candid exchange of ideas.



The CoE inaugurated by the minister will act as a national anchor for research and industry scale solutions in critical minerals, focusing in areas of exploration, extraction, processing, recycling, reuse and waste-to-wealth for critical minerals. The CoE will partner with industry leaders and international universities such as University of Cambridge & St Petersburg University and will receive infrastructure support from IIT Gandhinagar, IIT BHU and CPI(UK).

Developed by IIT (ISM) Dhanbad, in collaboration with Coal India Limited and its subsidiaries Northern Coalfields Limited and Eastern Coalfields Limited, VRMS is India's first VR based mine simulator for coal mining safety and productivity. Equipped with a 360-degree immersive virtual reality theatre, the VRMS uses real mine data and provides more than 20 training modules covering heavy equipment operation and critical safety SOPs. The VRMS will provide scenario based assessment and certification for all levels of employees, from operators to senior managers and is expected to cut training time by half, while ensuring improved safety preparedness.



In a warm and informal interaction, the Minister spent time with students and young researchers of IIT (ISM) Dhanbad at RD Chowk, a popular and age-old meeting point for students that has long been part of campus life and culture.

Over a cup of tea, the interaction moved beyond formalities, creating an open environment for candid conversations and free exchange of ideas.

Students shared their academic journeys, research interests and career aspirations, while discussions touched upon the evolving role of technology and innovation in mining, opportunities in critical minerals, sustainability and clean energy, and the need for research-driven, indigenous solutions.



The Minister encouraged students to think beyond conventional roles and view themselves as contributors to national development and problem-solvers for the mining and energy sectors.

Emphasising the importance of staying connected with young minds, the Minister reiterated that India's future in strategic sectors will be shaped by curious, confident and innovation-driven youth. The interaction symbolised a leadership approach rooted in accessibility, dialogue and trust, reinforcing the belief that meaningful progress emerges when governance engages directly with the aspirations of the next generation.

Earlier in his address, Shri G Kishan Reddy underscored the institution's pivotal role in shaping India's mining future through knowledge creation, research, and innovation. He stated that Indian School of Mines (ISM) is not only a premier institute for producing skilled mining professionals but also a cradle of innovation and new technological vision for the sector.

Shri Reddy, further stated that the mining sector is presently at a historic juncture, where technology, critical minerals, sustainability and national security are collectively driving the vision of Aatmanirbhar Bharat. He noted that under the visionary leadership of Prime Minister Shri Narendra Modi, every sector of the economy is witnessing a strong push towards information technology, innovation and research-driven growth. Highlighting the Central Government's emphasis on research and development, he pointed out that India has significantly increased its national R&D investment, emerged as the world's sixth-highest country in patent filings, and witnessed rapid expansion of its deep-tech and innovation ecosystem. The Minister highlighted the initiatives like Coal SETU, the Koyla Shakti Dashboard and Integrated Command & Control Systems, which are leveraging information technology to enable real-time monitoring, improve efficiency, and strengthen transparency and safety in the mining sector.

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