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**PRESS-RELEASE**

**IIT (ISM) hosts three-day Executive Development Program on geoengineering challenges for hydropower projects**

IIT (ISM) Dhanbad hosted a three-day Executive Development Program titled “Advanced practices for Geoengineering challenges for Hydropower Project Development” from 19 to 21 January 2026 at its Executive Development Centre (EDC). The programme was sponsored by NHPC Limited, Faridabad (A Government of India Navratna Enterprise) and brought together professionals from NHPC working across different regions of the country to enhance their technical preparedness for complex geo-engineering issues faced during hydropower project planning and execution. The initiative served as a significant platform for deliberation on geological, geotechnical and geophysical uncertainties that influence project safety, stability and long-term sustainability, especially in challenging terrains where hydropower infrastructure often operates.

The programme was inaugurated in the presence of Chief Guest Dr. Pijush Pal Roy, Former Outstanding Scientist, CSIR-CIMFR, Dhanbad, and Director (Actg.), CSIR-CMERI, Durgapur. The event was conducted under the patronage of Prof. Sukumar Mishra, Director, IIT (ISM) Dhanbad, and witnessed the presence of Prof. Keka Ojha, Dean (CEP), Prof. S. Sarangi, HOD (AGL), Prof. Kripamoy Sarkar, Coordinator (AGL) and Prof. S. K. Pal, Co-coordinator (AGP). Designed as an intensive knowledge-sharing and skill-development programme, the training enabled participants to examine practical approaches for assessing risks, predicting hazards and applying mitigation measures in hydropower projects, including tunnels, underground structures and slope stability concerns.

Across three days, seven eminent speakers delivered expert sessions spanning multiple disciplines such as geology, geophysics, civil and mining engineering. The first day began with a lecture by Dr. Pijush Pal Roy on tunnel excavation methodologies through innovative drilling and blasting, followed by a pre-course assessment. Prof. Kripamoy Sarkar addressed numerical techniques for landslide analysis and mitigation, while Prof. Rajib Sarkar discussed multi-hazard micro-zonation with case studies from the Joshimath area. The second day featured blast design for tunnel excavation by Prof. B. S. Choudhary and in-situ stress measurements by Prof. R. K. Sinha, along with a museum visit in the Department of Applied Geology and a field demonstration on geophysical tools by Prof. S. K. Pal. On the concluding day, Prof. S. K. Pal delivered a lecture on advanced geo-engineering practices, followed by Prof. D. Gopi Krishna’s session on mechanized tunneling using TBM, after which a post-course assessment was conducted. The valedictory session was addressed by Prof. Keka Ojha, along with the programme coordinators, marking the successful completion of the EDP.

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