



Two days workshop

on

Current Problems & Constraints in the Mining industries

29th - 30th May 2026



Organised by

Department of Mining Engineering, Indian Institute of Technology (IIT),
Varanasi

In association with

Directorate General of Mines Safety

About the Workshop

The Department of Mining Engineering, IIT (IIT) Varanasi, in joint association with the Directorate General of Mines Safety (DGMS), Dhanbad, is organizing a two-day workshop on “Current Problems and Constraints in the Mining Industries.” The workshop aims to bring together DGMS regulatory insights and the technical and research expertise of faculty, scientists, industry professionals, and students from various organizations to address real-world mining challenges related to safety, sustainability, technology, and regulatory compliance.

Major Objectives

- To create a common national platform for mining professionals to share the current problems and constraints faced by the mining and allied industries.
- To develop a structured database of real industry problems for academic and research utilization.

Expected Outcomes

- The proceedings of the workshop serve as a comprehensive repository of real-world problems faced by mining and allied industries.
- Utilization of identified problems by researchers and academicians as potential research objectives in future studies.
- Initiation of a student-focused hackathon by the Department, wherein the industry-identified problems from the workshop will be taken up by students to develop innovative, practical, and implementable solutions.

IIT (BHU) Varanasi

IIT (BHU) Varanasi, situated on the banks of the River Ganga, completed 100 years in 2019 and continues its legacy of excellence in education, research, and nation building. Founded by Bharat Ratna Mahamana Pandit Madan Mohan Malviya, the Institute evolved from IT-BHU to IIT (BHU) Varanasi in 2012 by an Act of Parliament. Reflecting its academic strength, the Institute was ranked 10th in Engineering and 22nd in Research in the NIRF 2025 Rankings.

Department of Mining Engineering

Established in 1923, the Department of Mining Engineering is the oldest in India and a pioneer in mining education, serving as a leading center for teaching and research with modern laboratory facilities.

Academic Programs

- B.Tech (Mining Engineering) | JEE (Advanced)
- M.Tech | GATE
- Ph.D. | GATE/NET + Test & Interview
- Executive Ph.D. | Hybrid mode for working professionals

Director General of Mine Safety

Directorate General of Mines Safety (DGMS), under the Ministry of Labour and Employment, Government of India, is the apex regulatory authority responsible for ensuring the safety, health, and welfare of mine workers. Established in its present form in 1967 with headquarters at Dhanbad, DGMS administers the provisions of the Mines Act, 1952, which evolved from early mine safety legislation following major mining disasters.

Vision & Role: DGMS strives to create risk- and hazard-free mining workplaces by preventing accidents and occupational diseases through effective legislation, inspections, compliance enforcement, and safety awareness.

Key Functions: Statutory inspection of mines, investigation of accidents and dangerous occurrences, granting approvals and permissions, development of safety standards and regulations, conducting competency examinations, and promoting safety through national programs, conferences, and awareness initiatives.



Key Thematic Areas of the Workshop Sessions

1. Mine Safety, Occupational Health, Regulatory Practices and Standards

- Occupational health hazards due to mining
- Electrical safety in surface and underground mines
- Implementation challenges in DGMS regulations

2. Underground Mining: Strata Control and Support Systems

- Design and operational challenges in mechanised underground mining
- Strata control practices in underground mines

3. Surface Mining and Geotechnical Stability

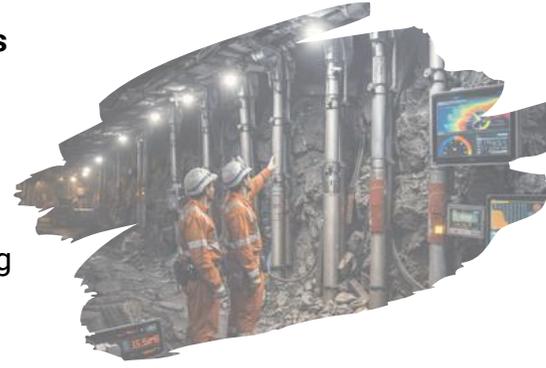
- Slope Stability, Ground Control, and Geotechnical Risk Management in Mining.
- Innovative Design and Planning of Open-Pit Mines and Deep Mineral Deposits
- Hydrogeology, Mine Water Management, and Dewatering in Large Opencast Mines.
- Internal Dumping and Stability Management in Steep Working Opencast Mines.

4. Drilling, Blasting and Mechanical Rock Excavation

- Safe blasting practices.
- Controlled blasting techniques.
- Powder factor evaluation, explosives and their quality.
- Electronic delay detonators: usage and limitations.
- Blast-free technologies using mechanical extraction methods.

5. Environment, Resource Efficiency and Sustainable Mining

- Underground mine ventilation and air quality management
- Overburden and mine waste utilisation
- Environmental protection and sustainable mining approaches
- Emerging Technologies for Extraction of Critical Minerals.



Who Can Participate

Industry professionals from mining and allied sectors, along with researchers, students, scientists, and faculty interested in understanding operational challenges and practical solutions in the mining industry, are encouraged to participate in the workshop.

Accommodation and Transportation

Varanasi is well connected by air, rail, and road. The nearest airport is Lal Bahadur Shastri International Airport (Babatpur), about 26 km from IIT (BHU), with direct flights from major Indian cities. Key railway stations include Varanasi Cantt., Banaras (BLW), and Pt. Deen Dayal Upadhyay (Mughal Sarai).

Participants are requested to arrange their own accommodation in the city.



Uniqueness of the Workshop

- Real, field-based problems will be presented by industry professionals along with the solutions adopted (temporary or permanent), wherever applicable.
- Keynote lectures will be delivered by experts from industry, universities and research organizations on advanced technologies and recent developments related to the thematic areas.
- Participants may present multiple problems from their mines/organizations (solved, partially solved, or unresolved).
- Each problem should be submitted in the prescribed format following the structure given below (format can be downloaded from the workshop website).

Presentation Structure

1. Problem Title
2. Introduction
3. Mine location and basic details
4. Current status of the problem
5. Solution adopted (temporary or permanent), if any
6. Concluding remarks and key observations

Workshop Sponsorship

| Category | Sponsorship Amount (₹) (Inclusive of 18% GST) | Complimentary Benefits |
|-------------------------|---|---|
| Platinum Sponsor | ₹10,00,000 | Logo on workshop website; Logo on banner & main backdrop; Full-page advertisement in workshop souvenir; 6 complimentary delegate registrations; Special mention during inaugural & valedictory sessions |
| Gold Sponsor | ₹5,00,000 | Logo on workshop website; Logo on banner; Half-page advertisement in workshop souvenir; 4 complimentary delegate registrations; Acknowledgement during technical sessions |
| Silver Sponsor | ₹3,00,000 | Logo on workshop website; Logo on banner; Quarter-page advertisement in workshop souvenir; 2 complimentary delegate registrations |

- Direct Sponsorship Opportunities: We also welcome direct sponsorship for Conference Lunch, Conference Dinner, and Delegate Registration Kit with appropriate branding visibility.

Exhibition / Demonstration Stall

Stall Charges: ₹30,000 (Inclusive of 18% GST)

Includes: Display space, table, power supply, and two exhibitor passes.

Registration Details

- All payments (registration/sponsorship) should be made through Bank/Electronic Transfer:
- Account Name: Registrar, IIT (BHU), Varanasi
- Bank: State Bank of India, IIT (BHU) Branch
- Account No.: 32778803937
- Account Type: Current
- IFSC: SBIN0011445 (for NEFT/RTGS)
- SWIFT: SBININBB125 (for International transfer)
- Registration Fee (including 18% GST):
- Participants: ₹11,800/- (₹10,000/- + GST ₹1,800/-)
- Students: ₹5,900/- (₹5,000/- + GST ₹900/-)
- Participants are requested to register through the Google Form link provided below or fill out the attached registration form and email it to the address given below.
- Email id: miningworkshop.events@itbhu.ac.in

Form

- For Online Registration: [Click here](https://forms.gle/vRyEHco5yW7gDzxBA) or copy and paste the link into your browser. (https://forms.gle/vRyEHco5yW7gDzxBA)

1. Name: _____
(First Name) (Middle Name) (Surname)

2. Position: _____

3. Organization: _____
Address: _____

4. City: _____ Pin: _____

5. Mobile No. _____

6. Email id: _____

7. Registration Category (Tick one):

- Industry Faculty Scientist Student Sponsor / Exhibitor

8. Bank Draft No./ Online Bank Transaction ID _____ dated _____ for Rs. _____ is enclosed.

Date: _____

Signature: _____

Organising Committee

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Director, IIT (BHU) Varanasi



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Department of Mining Engineering,
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Co-Convener

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Assistant Professor,
Department of Mining Engineering, IIT(BHU)
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| Dr. Rahul Upadhyay | Dr. Aishwarya Mishra |

All students and staff members of the department.

Venue & Contact Person

The workshop will be held at the Department of Mining Engineering, IIT (BHU), Varanasi, Uttar Pradesh, India - 221005

For further information, please contact:

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<https://events.iitbhu.ac.in/workshop/CPCMAI/>