

NATIONAL WORKSHOP
ON
**CURRENT PROBLEMS &
CONSTRAINTS IN THE
MINING INDUSTRIES**

29th–30th May 2026



JOINTLY ORGANISED BY
DEPARTMENT OF MINING ENGINEERING IIT (BHU), VARANASI
&
DIRECTORATE GENERAL OF MINES SAFETY, DHANBAD



SANDIPYADAV
4.23

॥ कुल-गीत ॥

मधुर मनोहर अतीव सुन्दर, यह सर्वविद्या की राजधानी।
यह तीन लोकों से न्यारी काशी।
सुज्ञान धर्म और सत्यराशी॥

बसी है गंगा के रम्य तट पर, यह सर्वविद्या की राजधानी।
मधुर मनोहर अतीव सुन्दर, यह सर्वविद्या की राजधानी॥
नये नहीं हैं यह ईट पत्थर।
हैं विश्वकर्मा का कार्य सुन्दर॥

रचे हैं विद्या के भव्य मन्दिर, यह सर्वसृष्टि की राजधानी।
मधुर मनोहर अतीव सुन्दर, यह सर्वविद्या की राजधानी॥
यहाँ की है यह पवित्र शिक्षा।
कि सत्य पहले फिर आत्म-रक्षा॥

बिके हरिश्चन्द्र थे यहीं पर, यह सत्य शिक्षा की राजधानी।
मधुर मनोहर अतीव सुन्दर, यह सर्वविद्या की राजधानी॥
वह वेद ईश्वर की सत्यवाणी।
बनें जिन्हें पढ़ के ब्रह्मज्ञानी॥

थे व्यास जी ने रचे यहीं पर, यह ब्रह्म-विद्या की राजधानी।
मधुर मनोहर अतीव सुन्दर, यह सर्वविद्या की राजधानी॥
वह मुक्तिपद को दिलाने वाले।
सुधर्म पथ पर चलाने वाले॥

यहीं फले-फूले बुद्ध शंकर, यह राज-ऋषियों की राजधानी।
मधुर मनोहर अतीव सुन्दर, यह सर्वविद्या की राजधानी॥
सुरम्य धाराएँ वरुणा अस्सी।
नहायें जिनमें कबीर तुलसी॥

भला हो कविता का क्यों न आकर, यह वाग्विद्या की राजधानी।
मधुर मनोहर अतीव सुन्दर, यह सर्वविद्या की राजधानी॥
विविध कला अर्थशास्त्र गायन।
गणित खनिज औषधि रसायन॥

प्रतीची-प्राची का मेल सुन्दर, यह विश्वविद्या की राजधानी।
मधुर मनोहर अतीव सुन्दर, यह सर्वविद्या की राजधानी॥
यह मालवीय जी की देशभक्ति।
यह उनका साहस यह उनकी शक्ति॥

प्रकट हुई है नवीन होकर, यह कर्मवीरों की राजधानी।
मधुर मनोहर अतीव सुन्दर, यह सर्वविद्या की राजधानी॥

डा० शान्ति स्वरूप भटनागर
द्वारा रचित

|| KUL-GEET ||

So sweet serene, infinitely beautiful
This is the presiding center of all learning
Radiant Kashi, wonder of the three worlds
Treasure-Chest of Jnana , Dharma and Satya
Nesting on Ganga's bank, center of all disciplines.
(So sweet, serene, infinitely beautiful)

No Recent work of brick and stone
Primordial design of divinity alone
Mansions of Vidya, center of all creation.
(So sweet, serene, infinitely beautiful)

Clear here is the doctrine pure
Truth first, then only one' self
Home of Harishchandra, Truth's testing ground.
(So sweet, serene, infinitely beautiful)

The voice of God in Vedic record
Constant Inspiration for soul-accord
Work-shop of Veda Vyasa, center freedom for Bhrahma Vidya
(So sweet, serene, infinitely beautiful)

Find here the steps of freedom
Tread here the path of Dharma
Flaming trail Budha's and Shankara's center for philosopher-kings.
(So sweet, serene, infinitely beautiful)

Life-Giving waters of Varuna and Assi
Sustenance of Kabir and Tulsi
Fountainhead of eloquent speech and poetry.
(So sweet, serene, infinitely beautiful)

Music, Economics, other arts so many
Maths, Mining, Medicine and Chemistry
Fraternal forum of East and West , university in trust sense.
(So sweet, serene, infinitely beautiful)

Patriotism of Malviyaji
His intrepidity and energy
All in youthful manifestation, centre for men of action
(So sweet, serene, infinitely beautiful)

Written By Dr. S. S. Bhatnagar



MAHAMANA PANDIT MADAN MOHAN MALAVIYA

25.12.1861 — 12.11.1946





VISHWANATH TEMPLE
BANARAS HINDU UNIVERSITY

IIT (BHU), VARANASI

IIT (BHU) Varanasi owes its very existence to its visionary founder, Bharat Ratna Mahamana Pandit Madan Mohan Malviya, who established the institution as a cornerstone for technical education and nation-building. Situated gracefully on the banks of the River Ganga, the Institute completed a glorious centennial milestone of 100 years of academic excellence in 2019. Historically known as IT-BHU, it officially evolved into IIT (BHU) Varanasi on June 29, 2012, through an Act of Parliament, successfully adapting its internal procedures to match the rigorous standards of global IIT frameworks. Reflecting its immense contemporary academic strength and research capability, the Institute stands proudly as a premier destination for higher learning, ranked 10th in Engineering and 22nd in Research in the prestigious NIRF 2025 Rankings.



DEPARTMENT OF MINING ENGINEERING



Established in 1923, the Department of Mining Engineering at IIT (BHU) is a true pioneer, holding the distinct honor of being the oldest mining engineering department in India. The department boasts an incredible history of academic firsts, having awarded the very first Ph.D. degree in Mining Engineering in the country in 1964, which was quickly followed by the introduction of India's first specialized postgraduate courses in Metal Mining, Coal Mining, and Mine Planning. Today, it functions as a highly advanced center for teaching and research, structurally divided into six core divisions featuring 19 state-of-the-art laboratories and a unique Underground Experimental Model Mine equipped for mechanized training, ventilation, and surveying experiments. Backed by generous development grants, its global alumni footprint is deeply influential, with illustrious graduates running major mineral industries and serving as expert decision-makers on crucial statutory bodies nationwide.

DIRECTORATE GENERAL OF MINES SAFETY

The Directorate General of Mines Safety (DGMS), functioning under the Ministry of Labour and Employment, Government of India, serves as the nation's apex statutory regulatory authority for the mining sector. Headquartered in Dhanbad in its current structural form since 1967, DGMS is directly responsible for administering the safety, health, and welfare provisions of the historic Mines Act of 1952. Its overarching core vision is to systematically eliminate workplace hazards and prevent occupational diseases, creating a risk-free environment through robust legislative compliance. To enforce these safety standards, DGMS actively oversees key critical operations, including the rigorous statutory inspection of mines, emergency accident investigations, standard formulation, competency examinations, and the granting of mandatory regulatory approvals and permissions.





आचार्य अमित पात्रा
निदेशक
Prof. Amit Patra
Director



Message

It gives me immense pleasure to welcome you to the National Workshop on Current Problems and Constraints in the Mining Industries, being held on 29th and 30th May 2026 at the Department of Mining Engineering, IIT (BHU), Varanasi. This workshop is jointly organized by IIT (BHU) and the Directorate General of Mines Safety (DGMS), Dhanbad.

This landmark event, organized by the Department of Mining Engineering, marks a proud milestone in our journey. Since its inception in 1923, the Department has stood as a pillar of excellence in mining engineering education and research, contributing significantly in areas such as Rock Mechanics, Surface and Underground Mining, Drilling & Blasting, Sustainable Mining, Mine Environment and Mine Safety. The purpose of this workshop is to provide a national platform for mining professionals, researchers, scientists, faculty, and students to share and deliberate upon the real-world challenges faced by the mining industries. By combining DGMS's regulatory insights with academic and research expertise, we aim to address issues of safety, sustainability, technology, and compliance.

This workshop provides a unique interface between industry and academia, enabling the integration of field experience with research-based insights. Such interaction is essential for developing innovative, implementable, and technology-oriented solutions to contemporary mining challenges. For our alumni, it is also a nostalgic reunion, an opportunity to reconnect with their alma mater and relive cherished memories.

The workshop sessions will cover key thematic areas such as mine safety and occupational health, strata control in underground mining, geotechnical stability in surface mining, drilling and blasting practices, and sustainable mining approaches.

I am confident that this workshop will be an enriching experience for all participants, fostering collaboration between academia, industry, and regulatory bodies. I extend my heartfelt wishes for the success of this event and look forward to welcoming you to a vibrant and fruitful gathering.

(Amit Patra)

Date: 15th May 2026

संस्कार ही शिक्षा  Education is Character



भारत सरकार / Government of India
श्रम एवं रोजगार मंत्रालय / Ministry of Labour & Employment
खान सुरक्षा महानिदेशालय / Directorate General of Mines Safety



UJJWAL TAH
DIRECTOR GENERAL

MESSAGE

It gives me immense pleasure to note that the Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi is conducting Two days workshop on **"Current Problems & Constraints in the Mining industries"** from 29th - 30th May 2026 under the aegis of Directorate General of Mines Safety.

Mining plays a vital role in the economic and infrastructural development of our nation. In the present scenario, the mining industry is confronted with numerous challenges such as sustainable mineral extraction, environmental management, mine safety, technological modernization, energy efficiency and regulatory compliance. Addressing these issues requires continuous research, innovation, and collaborative efforts amongst academia, industry professionals, policymakers and researchers.

I am confident that this workshop will provide an excellent platform for meaningful discussions, exchange of ideas and dissemination of technical knowledge related to the emerging challenges and opportunities in the mining sector. Such academic and professional interactions are essential for promoting sustainable and responsible mining practices in the country with the overall objective of Green Mining.

I congratulate the Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi for taking this valuable initiative and extending their efforts toward the advancement of mining education and industry-oriented research. I extend my best wishes for the grand success of the workshop and hope that the deliberations will greatly benefit all the stakeholders.

(Ujjwal Tah)



अधिराता कार्यालय
(अनुसंधान एवं विकास)

Office of the Dean
(Research & Development)

Dated: 25-05-2026



Message

The mining sector is currently experiencing a profound transformation, driven by heightened priorities on occupational safety, environmental sustainability, resource conservation, and the integration of advanced technologies such as automation, digitalization, and data-driven decision systems. In this evolving landscape, the National Workshop on Current Problems and Constraints in the Mining Industries is being organized on 29–30 May 2026 at the Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi, in collaboration with the Directorate General of Mines Safety (DGMS), Dhanbad.

The workshop seeks to convene domain experts from academia, industry practitioners, and regulatory authorities on a unified platform to critically examine the multifaceted technical, operational, environmental, and regulatory challenges confronting the mining industry. Key focus areas include mine safety engineering, sustainable mining practices, environmental impact mitigation, geo-technical risk management.

This technical forum is designed to facilitate in-depth deliberation, interdisciplinary knowledge exchange, and strategic collaboration among researchers, mining engineers, policymakers, and students. Such synergistic interactions are vital for identifying actionable, science-based solutions that address current constraints while fostering innovation and long-term sustainability in mineral resource extraction and management.

It is anticipated that the workshop will yield significant insights and constructive outcomes, contributing to the advancement of safer, more efficient, and environmentally responsible mining operations. I extend my best wishes for a highly productive and successful event and warmly welcome all delegates to IIT (BHU), Varanasi.

Prof. Rajesh Kumar
Research and Development (R&D)
IIT (BHU), Varanasi



Dr. Rajesh Rai
Professor & Head

काशी हिन्दू विश्वविद्यालय

भारतीय
प्रौद्योगिकी
संस्थान



INDIAN
INSTITUTE OF
TECHNOLOGY
BANARAS HINDU UNIVERSITY

खनन अभियांत्रिकी विभाग

Department of Mining Engineering

Message



The mining industry today is undergoing rapid transformation with increasing emphasis on safety, sustainability, environmental responsibility, and technological advancement. In this context, the National Workshop on Current Problems and Constraints in the Mining Industries, being organized on 29th and 30th May 2026 at the Department of Mining Engineering, IIT (BHU), Varanasi, in association with DGMS, Dhanbad, aims to bring together experts from academia, industry, and regulatory organizations on a common platform to deliberate upon the key challenges faced by the mining sector.

The workshop is expected to foster meaningful discussions and knowledge exchange on contemporary mining issues, while promoting collaboration among researchers, professionals, policymakers, and students. Such interactions are essential for developing practical and sustainable solutions for the future growth of the mining industry.

I sincerely hope that the workshop will provide valuable learning opportunities and fruitful interactions for all participants. I extend my best wishes for the successful conduct of the programme and warmly welcome all delegates to IIT (BHU), Varanasi.

Prof. Rajesh Rai
Date: 21.05.2026

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भारत सरकार / Government of India
श्रम एवं रोजगार मंत्रालय / Ministry of Labour & Employment
खान सुरक्षा महानिदेशालय / Directorate General of Mines Safety
उत्तरी जोन, गाजियाबाद / Northern Zone, Ghaziabad



Niraj Kumar
Dy. Director General
Northern Zone Ghaziabad

MESSAGE

I am delighted to know that the Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi, is organizing a two-day workshop on “*Current Problems & Constraints in the Mining Industries*” during 29th–30th May 2026.

The mining industry continues to remain one of the most important sectors contributing to national growth and industrial progress. However, modern mining operations are faced with several critical challenges related to mine safety, occupational health hazards, strata control, ventilation, disaster management, and safe utilization of advanced mining technologies. Further there is change in Regulatory provisions governing mining industry after the implementation of Occupational Safety Health & Working Conditions Code, 2020. Ensuring safety and well-being of mine workers while maintaining productivity and environmental balance is the main priority for the industry.

I believe this workshop will provide an excellent forum for experts, academicians, industry professionals, researchers and regulators to deliberate upon the present challenges and emerging solutions in the mining sector. Discussions on safe mining practices, technological innovations, and effective regulatory measures will certainly benefit all stakeholders associated with the industry.

I congratulate the Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi, for taking this important initiative. I extend my sincere wishes for the grand success of the workshop and hope that the deliberations and technical interactions will prove highly useful to all participants.

(Niraj Kumar)

राष्ट्र की सेवा में 125वां वर्ष / 125th year in the service to the Nation

खान सुरक्षा महानिदेशालय, उत्तरी जोन, कमरा नं० 201-03, सी0जी0ओ0 काम्पेक्स- II, ब्लॉक- बी, हापुड रोड, गाजियाबाद -201002

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भारत सरकार / Government of India
श्रम एवं रोजगार मंत्रालय / Ministry of Labour & Employment
खान सुरक्षा महानिदेशालय / Directorate General of Mines Safety
उत्तरी जोन, गाज़ियाबाद / Northern Zone, Ghaziabad
वाराणसी क्षेत्र, वाराणसी / Varanasi Region, Varanasi



Rajiv Krishna Kumar
Director of Mines Safety
DGMS, Varanasi Region

Message

I am pleased to learn that the Department of Mining Engineering, Indian Institute of Technology (BHU), Varanasi is organizing a two-day workshop on "**Current Problems & Constraints in the Mining Industries**" during 29th–30th May 2026.

Mining is one of the key sectors supporting the nation's industrial and economic development. With rapid technological advancements and increasing emphasis on sustainable development, the mining industry today faces several important challenges relating to safety management, environmental protection, resource conservation, mechanization, skill development, and effective implementation of statutory provisions.

In such a changing scenario, workshops of this nature play a very significant role in bringing together experts from academia, industry, and regulatory organizations for meaningful discussions and exchange of practical experiences. I am confident that the deliberations during this workshop will help in identifying workable solutions to the present challenges and will encourage adoption of safe, scientific, and sustainable mining practices.

I appreciate the efforts of the Department of Mining Engineering, IIT (BHU), Varanasi for taking this valuable initiative for the benefit of students, researchers, professionals, and the mining community at large.

I extend my best wishes for the success of the workshop and hope that the programme will provide enriching technical insights to all participants.

(Rajiv Krishna Kumar)

संजीव कुमार सिंह

अध्यक्ष एवं प्रबन्ध निदेशक

SANJIV KUMAR SINGH

Chairman & Managing Director



हिन्दुस्तान कॉपर लिमिटेड

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MESSAGE

It gives me immense pleasure to extend my greetings to the Department of Mining Engineering, IIT (BHU), Varanasi, and the Directorate General of Mines Safety (DGMS), Dhanbad, on the occasion of the Two-Day National Workshop on "*Current Problems & Constraints in the Mining Industries*" being held on 29–30 May 2026.

Mining has always been a cornerstone of industrial growth and national development. Today, however, the industry faces multifaceted challenges—ranging from safety and regulatory compliance to sustainability, technological innovation, and the extraction of critical minerals essential for the energy transition. Addressing these issues requires a collective effort that bridges academia, industry, and regulatory bodies.

Hindustan Copper Limited, as India's only vertically integrated copper producer, is deeply committed to advancing safe, sustainable, and innovative mining practices. We believe that workshops such as this provide a vital platform for professionals, researchers, and students to deliberate on real-world problems, share practical solutions, and chart pathways for future research and implementation.

I am confident that the deliberations during this workshop will contribute significantly to strengthening India's mining ecosystem. The initiative to compile industry challenges into a structured database and to engage students through hackathons is particularly commendable, as it will foster innovation and prepare the next generation of mining leaders.

On behalf of Hindustan Copper Limited, I extend my best wishes for the success of this workshop. May the discussions and outcomes serve as a beacon for safer, more efficient, and sustainable mining practices in India.

Sanjiv K. Singh
14/5/2026

Sanjiv Kumar Singh

Chairman and Managing Director

14th May, 2026

Kolkata

सतीश झा

Satish Jha

अध्यक्ष-सह-प्रबंध निदेशक

Chairman-cum-Managing Director



ECL

ईस्टर्न कोलफील्ड्स लिमिटेड

Eastern Coalfields Limited

(भारत सरकार का एक उपक्रम)

(A Govt. of India Undertaking)

(कोल इंडिया लि. की एक अनुषंगी)

(A Subsidiary of Coal India Limited)



Date:15.05.2026

MESSAGE

It gives me immense pleasure to know that the Department of Mining Engineering, IIT (BHU), Varanasi, in association with DGMS, Dhanbad, is organizing a Two-Day National Workshop on "Current Problems & Constraints in the Mining Industries" during 29-30 May 2026 at IIT (BHU), Varanasi.

Mining continues to play a pivotal role in the economic development of our nation, and the sector is presently undergoing rapid technological, operational, environmental, and safety-related transformations. In this context, such workshops provide an excellent platform for academicians, industry professionals, researchers, and regulators to deliberate upon the emerging challenges and explore sustainable, safe, and innovative solutions for the mining industry.

I appreciate the efforts of the organizers in bringing together experts from various domains to discuss contemporary issues concerning mining operations, safety standards, environmental management, mechanization, and productivity enhancement.

I am confident that the deliberations and exchange of knowledge during this workshop will greatly contribute towards the advancement of the mining sector and help in addressing the current constraints faced by the industry.

I extend my best wishes to the organizers, participants, and all associated with the successful conduct of this workshop and for the grand success of the event.

Warm regards,

Satish Jha

Chairman-cum-Managing Director
Eastern Coalfields Limited

पंजीकृत कार्यालय / Regd. Office

अध्यक्ष-सह-प्रबंध निदेशक का कार्यालय, सांक्तोड़िया, डाकघर- डिसेरगढ़, जिला- पश्चिम बर्द्धमान, पश्चिम बंगाल
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मनोज कुमार अग्रवाल
अध्यक्ष-सह-प्रबंध निदेशक

Manoj Kumar Agarwal
Chairman-cum-Managing Director



भारत कोकिंग कोल लिमिटेड
(कोल इंडिया लिमिटेड की एक अग्रणी कंपनी)
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(A Subsidiary of Coal India Limited)
(एक मिनरल कंपनी / A Minerals Company)
(भारत सरकार का उपक्रम / A Government of India Undertaking)



MESSAGE

It gives me immense pleasure to know that the Department of Mining Engineering, IIT (BHU) Varanasi is organizing the National Workshop on **“Current Problems & Constraints in the Mining Industries”** during **29th - 30th May 2026** at **IIT (BHU), Varanasi**. This workshop provides an excellent platform for researchers, academicians, policymakers, industry professionals, and students to exchange ideas and deliberate upon the emerging challenges and innovative solutions in the mining sector.

Mining plays a pivotal role in the economic growth and energy security of our nation. However, the industry today faces numerous challenges related to safety, sustainability, environmental management, technological advancement, and operational efficiency. Collaborative forums like this workshop are highly essential to address these issues through meaningful dialogue and knowledge sharing between industry and academia.

I appreciate the efforts of the organizing committee and associated institutions for taking this valuable initiative. I am confident that the workshop will foster constructive discussions, encourage innovation, and contribute significantly towards the development of safe, sustainable, and efficient mining practices.

I extend my best wishes for the grand success of the workshop and hope that the deliberations and recommendations emerging from this event will benefit the mining fraternity and the nation as a whole.

With best wishes,

(Manoj Kumar Agarwal)

Dated: 15/05/2026

डॉ. हेमंत शरद पांडे

अध्यक्ष-सह-प्रबंध निदेशक

Dr.Hemant Sharad Pande
Chairman-cum-Managing Director



वेस्टर्न कोलफील्ड्स लिमिटेड

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MESSAGE

It gives me immense pleasure to know that the Department of Mining Engineering, IIT (BHU), Varanasi, in collaboration with the Directorate General of Mines Safety (DGMS), Dhanbad, is organizing a Workshop on “*Current Problems and Constraints in the Mining Industry*” on 29th and 30th May 2026.

While mining remains the bedrock of India’s economic growth and energy security, the sector is navigating a pivotal transition. Today’s industry must reconcile escalating production demands with complex geo-mining realities, uncompromising safety standards, and urgent ESG (Environmental, Social, and Governance) imperatives. Transitioning toward sustainable, low-carbon operations while addressing systemic constraints—such as deep strata control, land acquisition, and mine reclamation—is the defining challenge of our time.

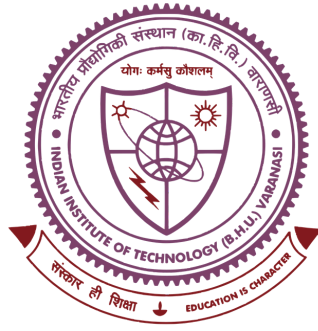
The path forward relies heavily on the integration of Industry 4.0 technologies, including AI, digital monitoring, and clean coal innovations. However, unlocking their full potential requires seamless synergy among industry operators, regulators, and academic researchers.

This workshop provides a highly relevant crucible for stakeholders to ideate, strategize, and bridge the gap between theoretical research and field application. I compliment the Department of Mining Engineering, IIT (BHU), Varanasi, and DGMS, Dhanbad, for taking this important initiative in organizing the workshop on such a relevant and contemporary theme.

I am confident, the deliberations will yield pragmatic, future-ready solutions for the Indian mining ecosystem.

I extend my best wishes for the grand success of the workshop and hope that the proceedings will greatly benefit all participants and stakeholders associated with the mining sector.

(HEMANT SHARAD PANDE)



Organising Committee

Patron



Prof Amit Patra
Director, IIT (BHU) Varanasi



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Co-Convener
Dr. Satyabrata Behera
Assistant Professor,
Department of Mining Engineering, IIT(BHU)
Varanasi

Members

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Prof. Ashok Jaiswal Dr. R P Singh
Dr. Amrendra Kumar Dr. Tarun Verma
Dr. Suresh Sharma Dr. Nawal Kishore
Dr. Bhardwaj Pandit Dr. Siva Prasad B N V
Dr. Rahul Upadhyay Dr. Aishwarya Mishra

All students and staff members of the department.

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Dr. Aarif Jamal
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Area of Interest: Mining Geology & Geo-environment, Air and water pollution, Source apportionment, Environmental Sustainability; Coal Quality Management and Utilization.



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Area of Interest: Mining Methods, Production and Productivity analysis of Mining Machines, Fragmentation and Blasting.



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Area of Interest: Numerical Modelling of rock excavations, Rock mechanics instrumentation, Rock blasting, Slope stability analysis and stabilizations, and Subsidence prediction



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Area of Interest: Applied Rock Mechanics, Underground Coal Mining, Numerical Simulation of Mining Structures, Rock Instrumentation

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IIT (BHU), VARANASI



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Area of Interest: Rock Mechanics and Slope stability.



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Area of Interest: Rock Mechanics and Strata Control, Numerical Simulation, Stability analysis of underground mine, Slope stability, Rock Instrumentation, Subsidence prediction, Roof fall



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Area of Interest: Optimization of Drilling and Blasting Performance, Ground Vibration and Rock Fragmentation Engineering, Practices of rock mechanics Instrumentation, Mine Development



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Area of Interest: Air Pollution Modelling and Mitigation, Mine Surveying, Remote Sensing and GIS, Environmental Management in Mines, Computer Applications in Mining.



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Area of Interest: Rock Mechanics, Probabilistic Analysis, Geotechnical Engineering, Numerical Modelling.



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Area of Interest: Drilling & Blasting Technology, Ground Vibration, Surface Mining Technology, Metalliferous Mining, Mine Environmental Monitoring

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Area of Interest: Design of Underground Space, Metal Mining, Hydroelectric Projects, Caverns, Numerical Modelling, Applied Rock Mechanics, Rock Excavation, Instrumentation.



Dr. Rahul Upadhyay
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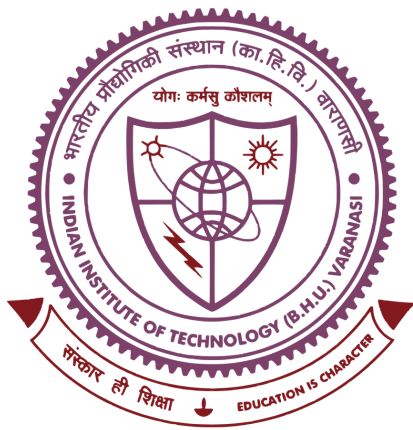
Area of Interest: Underground Mine Ventilation And Environmental Engineering, Numerical Simulation in Mine Ventilation.



Dr. Chandra Shekhar Singh
Senior Technical Officer

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Area of Interest: Mining Geology Rock Mechanics Rock & Soil Testing Ground Control Numerical Modelling



MINING PROBLEM SUBMISSION PORTAL

The Mining Problem Submission Portal is an initiative designed to create a common platform where real-world challenges faced by the mining industry can be identified, documented, and shared directly with the academic and research community.

What Can Be Submitted?

Mining professionals can submit practical field problems, operational challenges, safety concerns, technological gaps, and sustainability-related issues.

Who Solves Them?

These real-world problems are actively explored by our dedicated researchers, faculty members, and students to develop innovative, scientific, and implementable solutions.

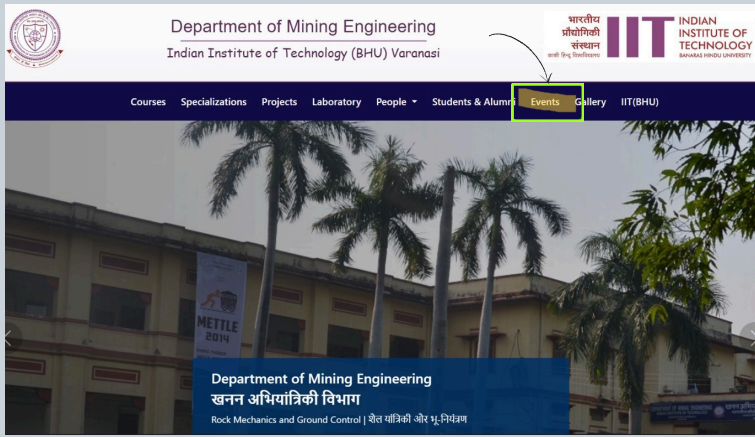
The Ultimate Goal

To promote knowledge exchange, encourage problem-driven innovation, and ultimately contribute to safer, smarter, and more sustainable mining practices.

The screenshot shows the homepage of the Mining Problem Submission Portal. At the top left, it says "Mining Problem Submission Portal" and at the top right, there is a button that says "← BACK TO WORKSHOP". In the center, there is a banner with the text "IIT (BHU) VARANASI · DEPARTMENT OF MINING ENGINEERING" above the main heading "Submit Real Mining Challenges". Below the heading, there is a paragraph: "Mining professionals, researchers, and students are invited to submit real-world mining problems. Selected challenges may be analysed and discussed by faculty members and students of IIT (BHU) Varanasi during academic discussions and workshops." A small orange line is positioned below the paragraph.

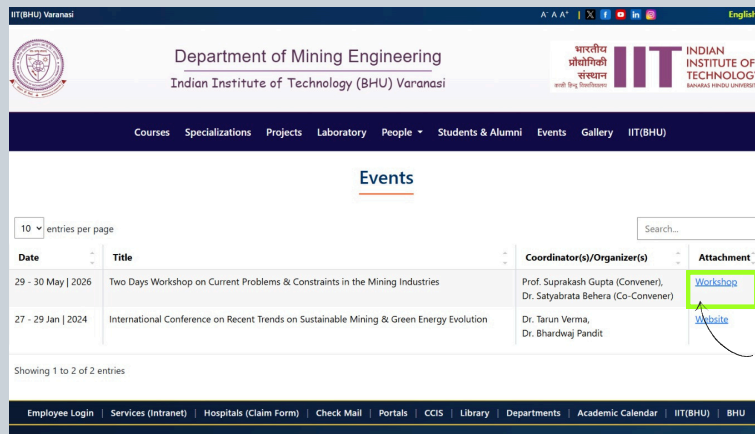
"This initiative is only the beginning of a larger effort to build a collaborative ecosystem where industry requirements and research capabilities can work seamlessly together for the advancement of the mining sector."

MINING PROBLEM SUBMISSION PORTAL



STEP 1: VISIT THE OFFICIAL IIT (BHU) MINING DEPARTMENT WEBSITE

Visit: iitbhu.ac.in/dept/min website portal and navigate to the **Events** section.



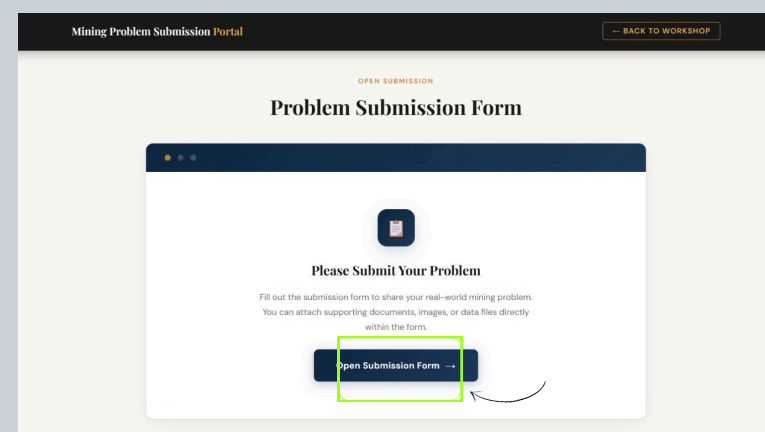
STEP 2: SELECT THE WORKSHOP OPTION

Select the **workshop option** listed under "**Two Days Workshop on Current Problems & Constraints in the Mining Industries.**"



STEP 3: WORKSHOP WEBSITE

Once you reach the dedicated **workshop website**, click on the "**Submit Problems**" option.



STEP 4: SUBMISSION PORTAL

On the Mining Problem Submission Portal, scroll down and click on the option labeled "**Open Problem Submission Form**" to access the **official Google Form link**.

MINING PROBLEM SUBMISSION PORTAL

Submit Real Mining Challenges

The workshop is organized to aim to accumulate the Mining related problem and issue for future research and directions. It is requested to academicians, researchers working in research organizations and Industries person upload your problems and issue related to Mining Industry.

The Issue/Problem may be in half page (title and problem statement), one page (title, problem statement, any suggestions), two pages (title, problem statement, area details, data, suggestions), and upto four pages (title, introduction/Problem statement/ area detail/ data/ suggestion/ conclusions/ any other). The link of website and problem page is given below:

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

[miningworkshop.events@iitbhu.ac.in](https://events.iitbhu.ac.in) [Switch account](#)

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Status of Problem

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Google Forms

STEP 5 : COMPLETE THE FORM

Use the official Google Form to fill in your **required details**, upload your structured problem statement file, and **submit** your query.

The portal is envisioned not merely as a workshop activity, but as a long-term knowledge-sharing and problem-solving platform for the mining community. Even after the completion of the workshop, the portal will remain continuously open for submission of mining-related problems, operational challenges, safety concerns, environmental issues, technological requirements, and field-level constraints faced by industries.

The submitted problems may further encourage industry-oriented research, student projects, consultancy activities, policy discussions, and collaborative innovation between academia and industry. This initiative aims to bridge the gap between field challenges and scientific research by promoting continuous interaction and meaningful engagement among all stakeholders of the mining sector.



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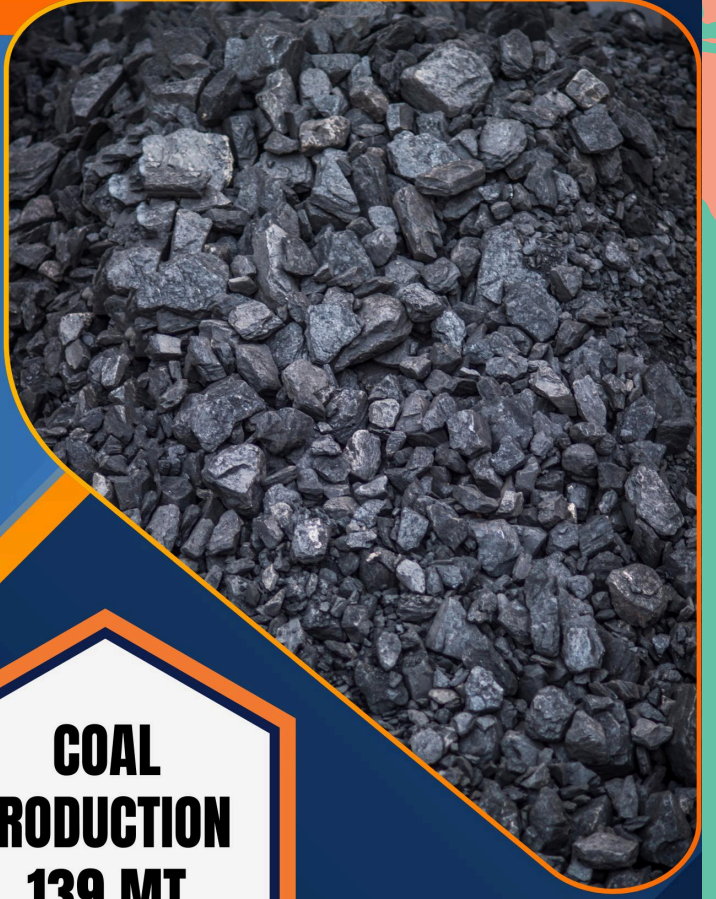


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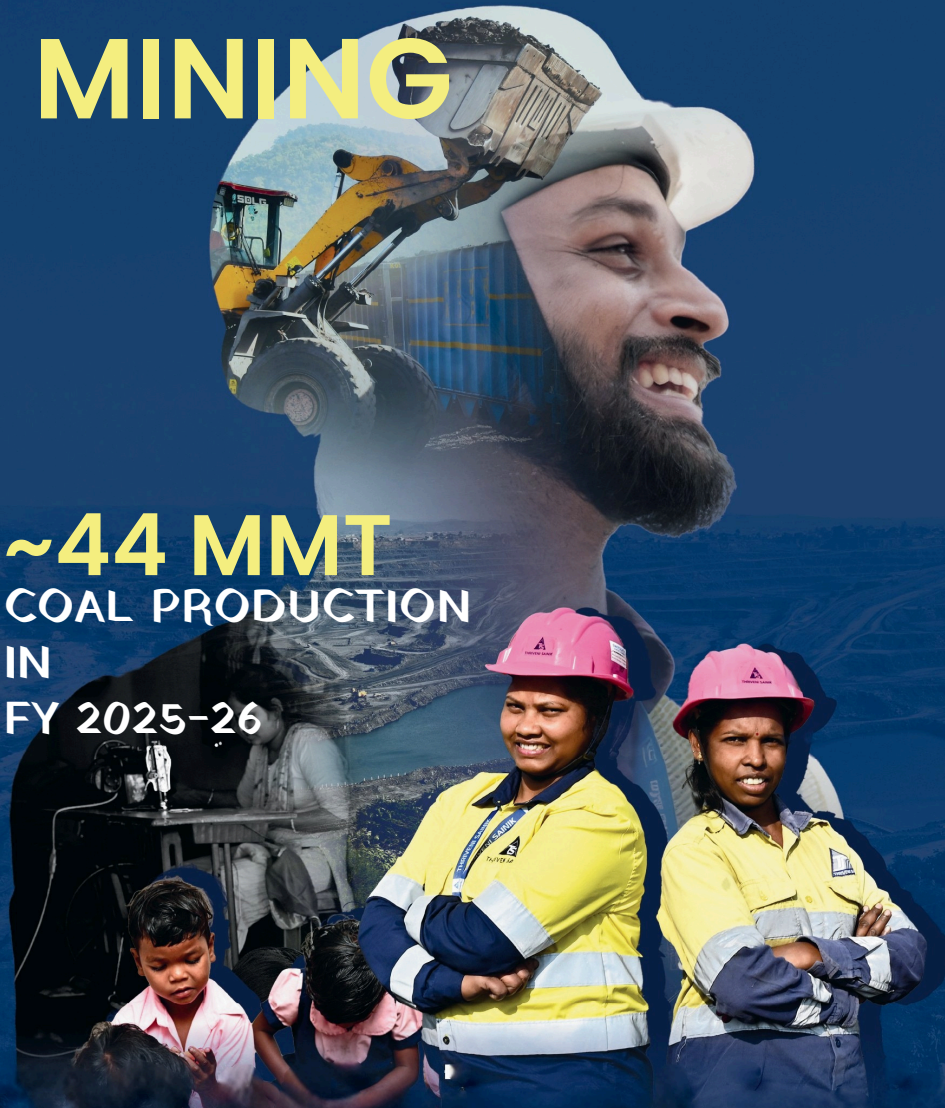


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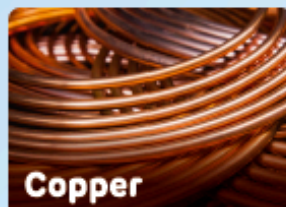
Bunyu, Indonesia

4 MTPA thermal coal production



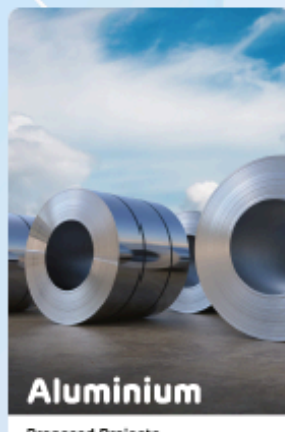
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Kurmitar, Taldih Mines: ~13 MTPA of peak
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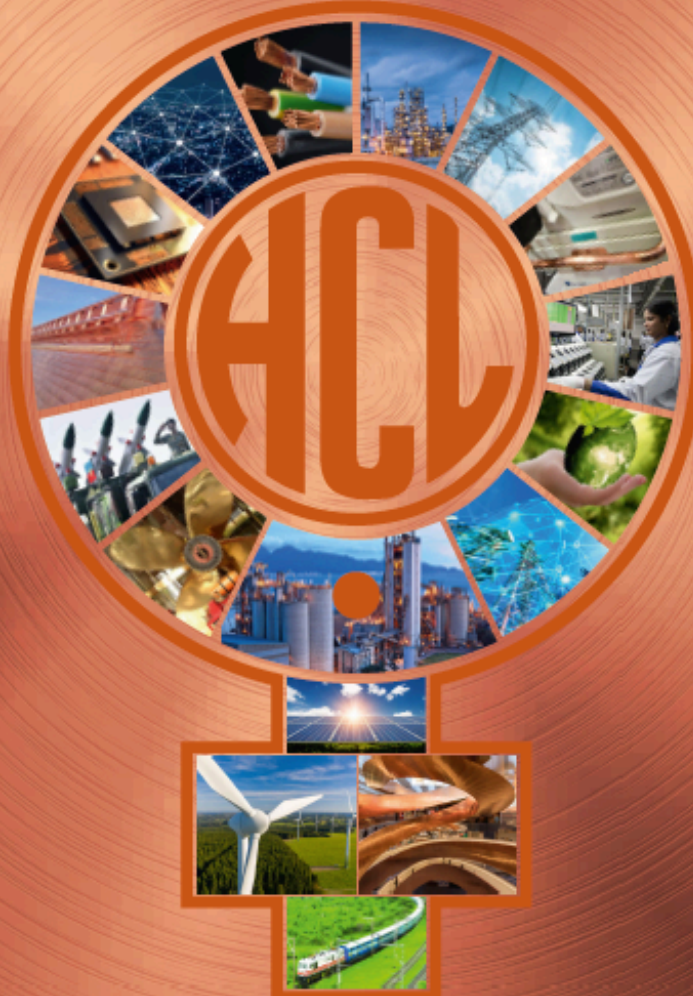


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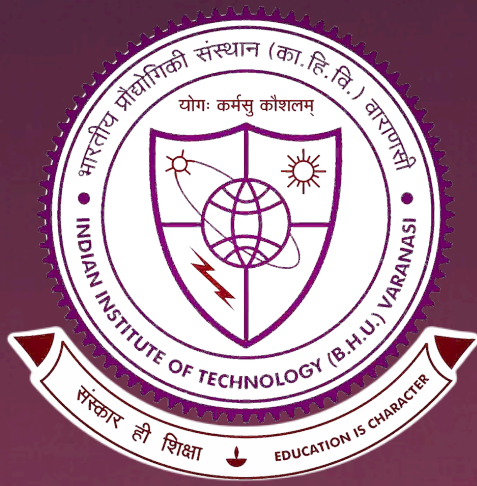
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