



**SME**  
BIT  
SINDRI

**DEPARTMENT OF  
MINING ENGINEERING**  
in association with  
**SME BIT SINDRI  
STUDENTS' CHAPTER**

Presents

# **NATIONAL SEMINAR**

**ON**

**EMERGING TRENDS IN RARE  
EARTH AND CRITICAL  
MINERAL EXTRACTION AND  
PROCESSING**



14<sup>th</sup>-16<sup>th</sup> May, 2026



A-27, BIT Sindri



# ABOUT US

The primary aim of the institute is to cater the requirements of the country for technological manpower for development and research programs comparable to the best in the world.

The college offers BTech courses in 10 disciplines of engineering, namely Civil, Chemical, Computer Science, Electrical, Electronics and Communications, Information Technology, Mechanical, Metallurgy, Mining, and Production. All the courses are approved by the All-India Council of Technical Education, New Delhi (AICTE). Also, most undergraduate programs are accredited by the National Board of Accreditation (NBA), New Delhi.

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# ABOUT THE MINING DEPARTMENT

The department of Mining Engineering was started in the year 1975. The department offers UG & PG courses with Environmental Engineering as specializations. The department also offers adequate facilities for R&D works and thus provides a vital impetus in growth of the Jharkhand state. Both undergraduate and postgraduate students are trained in computer applications of Mining engineering and the latest softwares. The students of the department actively pursue R&D under the guidance of faculty members funded by Government Bodies.

# VISION OF THE DEPARTMENT

Enhancing mining engineering research, education and industry institution collaboration to international standards.

# MISSION OF THE DEPARTMENT

To produce competent Mining Engineers by

- Provide outstanding technical education for analysis, design and operation of mining and materials system.
- Keep abreast with rapid strides in technology and improve academic standers through innovative teaching and learning processes.
- Engage in quality research in Mining, materials and allied engineering areas.
- Develop academic linkage with leading industries for mutual benefit.



# ABOUT JCSTI

The Jharkhand Council on Science, Technology & Innovation (JCSTI) is an autonomous body under the Department of Higher and Technical Education, Government of Jharkhand. It serves as the state's apex organization for promoting a scientific temper and driving technological advancement.

JCSTI acts as a bridge between research and real-world application by providing financial support for academic seminars, research projects, and grassroots innovations. With a mission to foster sustainable development, the Council oversees critical infrastructure like science centres and planetariums while empowering the state's youth through internships and scientific literacy programs.



# ABOUT THE SEMINAR

"Emerging Trends in Rare Earth and Critical Mineral Extraction and Processing" aims to explain recent developments, new technologies, and sustainable methods used in critical mineral mining and processing. "The global demand for rare earth elements and critical minerals is rapidly increasing due to their use in electronics, renewable energy defense, and green technologies. This growing demand makes it necessary to develop extraction and processing methods that are more efficient, environmentally friendly, and cost-effective.



## WHO SHOULD ATTEND?

This national seminar is intended for students, researchers, academicians, and professionals interested in the field of rare earth and critical mineral extraction and processing. Students from Diploma, UG, PG, and Ph.D. levels can benefit from this seminar. Faculty members from academic institutions of different disciplines are also encouraged to attend. In addition, engineers and scientists working in Earth science and allied fields such as Geology, Mining Engineering, Mineral Engineering, Metallurgical Engineering, and Chemical Engineering will find this seminar highly useful. The seminar provides a platform for learning, discussion, and interaction among participants from academic and industrial backgrounds.

## SUB-THEME

The following topics will be covered in the seminar workshop:

- Advanced Processing Techniques for Critical minerals.
- Innovative Extraction Technologies for Rare Earth metals.
- Environmental Sustainability in Rare Earth and Critical Mineral Mining
- Challenges and Opportunities in India's Critical Mineral Development
- Separation Science and Purification of Rare Earth and Critical Elements
- Urban Mining: Extracting Rare in Earths and strategic materials from electronic Waste
- Geology of Rare Earth and Critical minerals

# KEY SPEAKERS

<b>Dr. Lailesh Kumar</b>	Cheif Technical Officer, TEXMiN Foundation, IIT (ISM) Dhanbad
<b>Dr. Shравan Kumar</b>	Associate Professor, Department of Fuel, Minerals and Metallurgical Engineering, IIT(ISM), Dhanbad
<b>Dr. Aditya Kumar Patra</b>	Professor & Head, Department of Mining Engineering, IIT Kharagpur
<b>Dr. Tonmoy Kundu</b>	Principal Scientist, Mineral Processing Division, CSIR - IMMT, Bhubaneswar
<b>Prof. Debi Prasad Mishra</b>	Professor, Department of Mining Engineering, IIT(ISM), Dhanbad
<b>Dr. Atul Aditya Pandey</b>	Professor, Department of Geology, Patna University
<b>Dr. Sahendra Singh</b>	Professor, Department of Applied Geology, IIT(ISM), Dhanbad
<b>Dr. Akhouri Bishwapriya</b>	Senior Scientist, Geological Survey of India, Ranchi
<b>Dr. B.R. Mishra</b>	Ex-head R&D Division, IREL India Ltd. (retd.)
<b>Dr. Sushant Kumar Sahu</b>	Scientist-G, National Metallurgical Labarotary, Jamshedpur

## CHIEF PATRON

**Prof. (Dr.) D.K. Singh**  
Vice Chancellor, JUT, Ranchi

## PATRON

**Prof. (Dr.) Pankaj Rai**  
Director, BIT Sindri

## CONVENER

**Prof. (Dr.) P.K. Singh**  
Head, Mining Engg. Dept.

## COORDINATOR

**Dr. Manas Kumar Mallick**  
Asst. Prof., Mining Engg. Dept.



## ADVISORY AND ORGANIZING COMMITTEE

**Dr. Amit Kumar Gupta**  
Associate Professor

**Dr. B.D. Yadav**  
Associate Professor

**Dr. Sangram Hembrom**  
Assistant Professor

**Mr. Suman Hessa**  
Assistant Professor

**Mr. Roshan Kumar**  
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**Mr. Neeraj Yadav**  
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## CONTACT DETAILS

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## ACCOUNT INFORMATION

Name of the Organisation / Institution	BIT Sindri
Name of the Bank	State Bank Of India
Branch Address	BIT Sindri Campus
Account No.	10635508859
IFSC Code	SBIN0011812
Contact No.	9430103417



## REGISTRATION DETAILS

01	For students and research scholars	500/-
02	For Industry professionals	1000/-

- Registration is mandatory for all the participants.
- TA and refreshment will be admissible as per JCSTI guidelines.
- Selection as per JCSTI guidelines, and first-cum- first-serve basis.  
Maximum no. of participants is limited to 50.
- Last date for registration 30<sup>th</sup> April, 2026.
- Participants are invited to register for the upcoming seminar by completing the registration form available at:  
<https://forms.gle/qTFZhr6TBpxz794s9>
- Confirmation will be sent after successful registration.



**SCAN HERE  
TO REGISTER**