



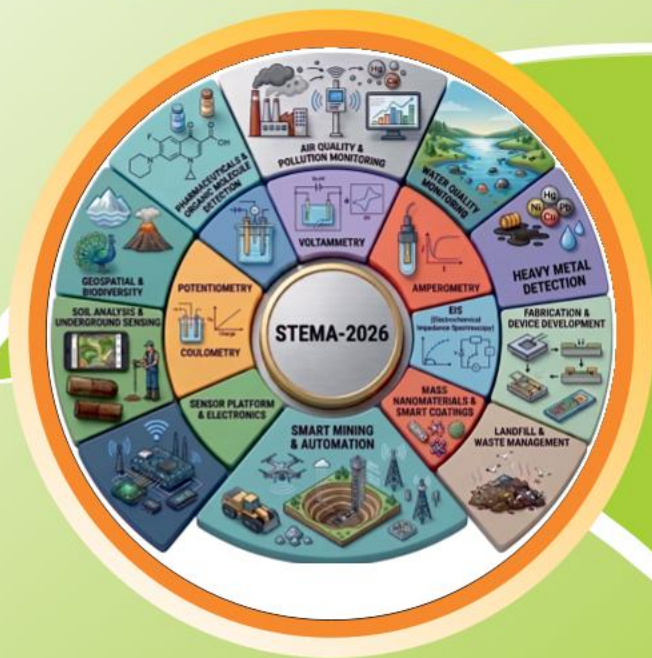
National Workshop
On

Sensor Technologies for Environmental Monitoring and Applications (STEMA - 2026)

(A centenary celebration of IIT (ISM) Dhanbad)

(November 23-24, 2026)

Venue: IIT (ISM), Dhanbad, India



Organized by

Department of Environmental Science and Engineering

Indian Institute of Technology (Indian School of Mines)

Dhanbad - 826004, INDIA



In Association with

EIACP (PC-RP), IIT (ISM) Dhanbad &
TEXMiN Foundation, IIT (ISM) Dhanbad



About the Workshop

This two-day workshop provides an in-depth exploration of state-of-the-art electrochemical sensing technologies and their practical deployment across environmental, biological, and industrial domains. Participants will gain comprehensive insights into the fundamental principles of electroanalysis, advanced material fabrication, surface modification, and device miniaturization. Designed to bridge the gap between theoretical electrochemistry and real-world analytical applications, the workshop combines expert keynotes, interactive technical sessions, and practical demonstrations. Attendees will explore how modern electrochemical platforms ranging from microfluidic chips to portable point-of-care and environmental monitors are designed, optimised, and deployed to solve critical sensing challenges.

Themes of the Workshop

- ☐ Basics of Electrochemical Sensors
- ☐ Mechanism and Application of Sensors
- ☐ Roles of Biological and Chemical Receptors
- ☐ Development of Smart Materials for Sensors
- ☐ Development of Portable and Handheld Devices
- ☐ Sensors for Air Quality and Gas Detection
- ☐ Sensors for Water and Effluent Quality Monitoring
- ☐ Sensors for Soil Quality Monitoring
- ☐ Application of Sensors in Mining and allied Industries
- ☐ Real-World Applications and Future Trends of sensors
- ☐ Hands-on exploration of Modern Sensor Technologies

About IIT (ISM) Dhanbad

The Indian Institute of Technology (Indian School of Mines) Dhanbad is located in the prime coking coal belt of India which is 260 km away from Kolkata city. The IIT (ISM) Dhanbad has all the facilities of a world-class academic research institute and is fully residential. The Indian School of Mines was formally opened on 9th December 1926, by Lord Irwin, the then Viceroy of India to address the need for trained manpower related to mining activities in the country with disciplines of Mining and Applied Geology. The Indian School of



Mines has been conferred the status of Indian Institute of Technology (IIT) on September 06, 2016, by the Government of India and has been renamed Indian Institute of Technology (Indian School of Mines), Dhanbad. Since its establishment, the institute has undergone considerable expansion of its activities and emerged as a reputed technical institution in the country. IIT (ISM) offers B.Tech (4 Years) courses, integrated M.Tech (5 Years) courses, Master of Science/Arts and Technology, Master of Business Administration, and awards Ph.D. Degree. IIT (ISM) Dhanbad has been contributing significantly to the growth and development of mining, mineral, petroleum and geoscience in India apart from other emerging streams.

About the Department

The Department of Environmental Science and Engineering was created out of the existing Centre of Mining Environment (established in 1987) at the Institute in June 2007 with the commencement of a regular B.Tech. Degree in Environmental Engineering under IIT-JEE (first of its kind offered by any national institute). The Department also offers a regular M.Tech program and PhD program in Environmental Science & Engineering. The students of the Department have been well received by the industries like CIL, BCCL, ECL, CCL, NCL, MCL, SECL, CMPDIL, WCL, SCCL, Sterlite, HCL, HZL, NALCO, BALCO, NTPC, L&T, and many other esteemed companies along with regulatory authorities like MoEF & CC, CPCB, SPCBs, Research Organizations (CSIR Labs, CIMFR, RRLs) & academic institutes (IITs, NITs etc.), Consultancy Organizations & NGOs. The department is equipped with sophisticated equipment to cater for the needs of research. The department is also accredited with ISO 9001 and OHSAS 18001 Certificates.

Date of Workshop: November 23-24, 2026

About the Venue: IIT (ISM) Dhanbad, Jharkhand, India

IIT (ISM) Dhanbad is situated in the heart of Dhanbad City. Dhanbad is often referred to as the "Coal Capital of India" due to its rich coal reserves. The city and its surrounding areas are home to numerous coal mines, making it a significant hub for coal production in the country. The weather in Dhanbad is very pleasant during November.

How to Reach IIT (ISM), Dhanbad

By Train: Dhanbad Junction Railway Station, located just 2.8 km from the IIT (ISM) Campus, is the nearest railway station. By Air: The nearest public airports to Dhanbad are: Kazi Nazrul Islam Airport, Durgapur (85 km), Birsa Munda Airport, Ranchi (140 km), Deoghar International Airport, Deoghar (110 km), Netaji Subhas Chandra Bose International Airport, Kolkata (269 km).

Accommodation

Accommodation for participants will be arranged on a first-come, first-served and payment basis at the IIT (ISM) Guest House, subject to availability. Participants may also make independent hotel bookings in Dhanbad at their convenience.

Registration:

Registration fee includes access to all technical and hands-on sessions, registration kit, breakfast, high tea, working lunch. A participation certificate will be provided to all the attendees.

Registration fee	Participation Amount (INR) + 18% GST		
	Early Bird (before 10.10.2026)	Late Registration (before 10.11.2026)	On-Spot Registration
Students/Research Scholars	4000	4500	5000
Faculty & Scientists	10000	11000	12000
Industry Professionals	15000	16000	17000

Fee Payment Instructions

The registration fee is to be paid via Net Banking, DD or UPI to the account mentioned below. Once the payment is successful, participants are requested to register via the given Google link. Please send the transaction details after the registration via e-mail: stema@iitism.ac.in

Registration Link:

<https://docs.google.com/forms/d/e/1FAIpQLSdJpNs3uAuyialAiWCEysofBrA280MJkZECDEr2brXJyL5f3Q/viewform?usp=header>

Call for Abstracts and Posters:

Abstracts and posters are invited in line with the workshop themes. The abstract limit is 500 words; the poster size should be 3 × 4 ft (approx.). The last date of submission is October 10, 2026.



Bank Details for Payment

Net Banking

Name: IIT ISM CEP Account
A/C no: 110261358281
IFSC: CNRB0000986
SWIFT Code: CNRBINBBBFD
Bank Name: Canara Bank
Branch: Saraidhela Branch, Dhanbad
MICR code: 826015003
GSTIN: 20AAAI0686D1ZA

UPI



Sponsorship

PLATINUM SPONSOR	INR 5,00,000/- (10 delegates free of cost)
DIAMOND SPONSOR	INR 4,00,000/- (8 delegates free of cost)
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SILVER SPONSOR	INR 2,00,000/- (4 delegates free of cost)
BRONZE SPONSOR	INR 1,00,000/- (2 delegates free of cost)

Advertisement in the Souvenir

Back cover:	INR 1,00,000/- (color)
Front inside:	INR 75,000/- (color)
Back inside:	INR 50,000/- (color)
Full page (other):	INR 30,000/- (color)

Important Dates

Last date for early bird registration	October 10, 2026
Last date for late registration	November 10, 2026
Workshop	November 23-24, 2026

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Dhanbad

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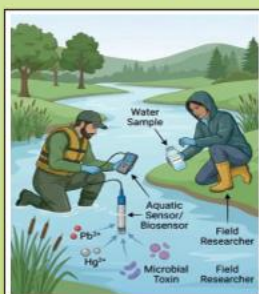
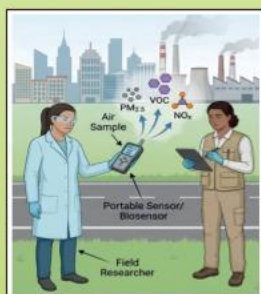
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For any further information:

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 For Accommodation: Mr. Manish K. Sharma (Mb. 7992240363)