

Three Days Executive Development Program

on

Groundwater Resource Management and Hydrogeological Studies required for Environmental Clearance in Mining and Industrial Areas

(17th June-19th December 2025)

Venue

IIT (ISM) Institute Industry Interaction Facility,
Unit No. 401, 4th Floor, NBCC Centre, Plot No.II,
Community Centre, Okhla (Phase -I),
New Delhi – 110020



Organized by

Prof. Prasoon Kumar Singh

Landuse & Hydrogeology Laboratory
Department of Environmental Science & Engineering
IIT(ISM) Dhanbad - 826004
Jharkhand, India

About IIT(ISM) Dhanbad:

The Indian Institute of Technology (Indian School of Mines) is a fully residential and co-educational premier institute located in the mineral-rich belt of India in the city of Dhanbad, Jharkhand. It is one of the oldest technical Institute of the country, serving the nation since 1926. What started as an institution to impart mining education, has graduated into a full-fledged technical institution of international acclaim offering a host of programs. The Institute has seventeen departments and seventeen centers. Formerly known as Indian School of Mines Dhanbad, the Institute was upgraded to a full-fledged IIT on 6th September, 2016.



About the Department:

The Department of ESE is created out of the existing Centre of Mining Environment (established in 1987 as CENTRE OF EXCELLENCE in the field of Mine Environment by MoEF, Govt. of India) at Indian School of Mines in June 2007 with the commencement of a regular B. Tech. program in Environmental Engineering under IIT-JEE (first of its kind offered by any national institute)



About the Course:

This training program provides an in-depth understanding of the role and methodology of hydrogeological investigations required for obtaining Environmental Clearance (EC) under the EIA Notification 2006. Industries and mining projects often face delays or rejection in clearance due to inadequate groundwater assessment. This course bridges that gap by training participants on regulatory requirements, field methodologies, data interpretation, and report preparation tailored to EC applications.

Participants will learn about aquifer characterization, groundwater quality and quantity evaluation, pre- and post-monsoon monitoring, water budgeting, and the preparation of hydrogeological chapters for EIA/EMP reports. Emphasis will also be given to legal compliance with CGWA guidelines, modeling of mine seepage and groundwater drawdown, and preparation of base maps using GIS and remote sensing tools.

Suitable for consultants, hydrogeologists, EIA coordinators, and industry professionals, this course ensures a practical and regulatory-aligned approach, enabling participants to produce scientifically sound and legally acceptable hydrogeological studies.

Course Contents:

Following probable topics will be covered:

- Introduction to Groundwater Resource Management
- Overview of Environmental Clearance for Hydrogeological Aspects
- Regulatory Role of MoEF&CC, CGWA in Hydrogeological studies
- Groundwater Assessment: Aquifer Mapping, Monitoring and Budgeting
- Groundwater Resource Modelling
- Factors Affecting Recharge in Mining and Industrial Areas
- Water Auditing in Mining and Industrial Areas
- Groundwater Resource Quality Assessment
- Case Studies for CPCB/MoEF&CC Guidelines Compliance
- Hands-on Training & Field work: Water Table Monitoring, Water Table Contours, GW Flow Directions
- Application of AI and ML in Groundwater Resource Management
- Impacts of Climate Change on Groundwater Resources
- Methodologies for Groundwater Resource Conservation

Who Can Attend:

- Executives, Engineers, and Researchers from Government and Private Organizations, Industries and R&D laboratories.
- Students at all levels (B.Tech/MSc/M.Tech/PhD).
- Faculty from reputed academic institutions and technical institutions.
- Industry officials, Executives engaged in environmental management & planning.

Important Dates:

Last date for Registration - **30th September 2025** (Selection will be based on the first come first served basis)

Venue

From 17th – 19th December 2025 at IIT (ISM) Institute Industry Interaction Facility, Unit No. 401, 4th Floor, NBCC Centre, Plot No.II, Community Centre, Okhla (Phase -I), New Delhi - 110020.

How to Apply?

Applicants are requested to send the hard copy of the filled registration form along with course fee through DD/RTGS the Demand Draft/ Proof for online transfer by speed post/scanned copy by E-mail to the Course Coordinator. The Demand Draft should be drawn in favour of “Registrar, IIT (ISM) Dhanbad” payable at Dhanbad.

Course Fees:

INR 30,000/- (for Indian Nationals) plus 18% GST

INR 5,000/- (for Students & Research Scholars of Indian Universities/ Institutes)

This will include course materials, working lunch and training kits.

INR 1,000/- (for Students & Research Scholars of IIT(ISM) Dhanbad- for attending Lectures only)

Note: The participants have to make their own lodging arrangement

Bank Account Details:

Account Number	: 0986101024892
Bank Name	: Canara Bank
Branch	: Seraidhela, Dhanbad
IFSC Code	: CNRB0000986
MICR Code	: 826015003
RTGS	: 0000986
GSTIN	: 20AAAAI0686D1ZA
PAN	: AAAI0686D
Legal Name	: Registrar, Indian Institute of Technology (ISM), Dhanbad

COURSE COORDINATOR

Prof. Prasoon Kumar Singh

Professor and Programme Coordinator

Coordinator, Water Resource Management, CWRM

Landuse & Hydrogeology Laboratory

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Former Scientist - CIMFR (a CSIR Lab), Dhanbad

Chairman-Technical Committee of Accreditation Scheme for Prospecting Agency & Mine Plan Preparing Agency- QCI-NABET (Ministry of Commerce & Industry)
Groundwater Excellence Awardee 2023 (INC-IAH)

SAVE Water

