

30th International Conference on
Hydraulics, Water Resources, River
and Coastal Engineering



HYDRO INTERNATIONAL 2025

Multi-Disciplinary Conference & Exhibition

18 - 20 DECEMBER 2025

NIT ROURKELA



INTRODUCTION

The conference intends to provide a platform to water resources professional, academicians and young researchers to discuss and share their ideas. The conference mainly aims at providing a forum for the dissemination of recent contributions from academicians, scientists, researchers, practitioners and consultants in the fields of hydraulics, hydrology, water resources and coastal engineering.

ABOUT INDIAN SOCIETY FOR HYDRAULICS (ISH)

The Indian Society for Hydraulics (ISH) is a technical, educational, non-profit national organization, established in 1992 to serve as a common platform for engineers, scientists and technical personnel working in hydraulics and other allied fields. ISH helps technical personnel stay abreast with the latest development in hydraulics by organizing regular meets, seminars gatherings and symposiums. The body also makes it a point to recognize outstanding achievements in the field, by giving away awards to the deserving. The ISH headquarters are located at Central Power and Research Station in Khadakwasla, Pune. The conference is being organized under the aegis of the Indian Society for Hydraulics.

DATE & VENUE

The Conference will be hosted during **December 18 - 20, 2025** at **NIT ROURKELA, Sundargarh, Odisha - 769008, INDIA**. The details of conference will be made available on website (<https://hydro2025.nitrkl.ac.in>)

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THEMES

Computational and Experimental Hydraulics

- Computational Fluid Dynamics (CFD)
- Hydraulic Transients
- Dam-Break Analysis and Emergency Action Plans (EAP)
- Physical Modeling
- Hydraulic Structures Design & Analysis
- Instrumentation and Monitoring Systems
- Multiphase and Hyper-Concentrated Flows

River Engineering, Sediment & Fluvial Hydraulics

- River Morphology and Dynamics
- Sediment Transport Mechanisms
- Reservoir Sedimentation
- Hyper-Concentrated and Multiphase Flows
- Sediment Management in Hydropower Projects
- River Restoration and Environmental Flows
- Trans-Boundary Water Sharing and Policy
- Inter-Basin Water Transfer Projects

Surface Hydrology and Watershed Management

- Watershed Hydrology & Integrated Watershed Management
- Hydrologic Modeling
- Flood Estimation, Forecasting, and Protection Measures
- Drought Assessment and Mitigation
- Catchment Erosion & Soil Conservation
- Water Conservation Practices
- Environmental Impact Assessment (EIA) of Water Resources Projects
- Hydrodynamics of Surface Flow Interactions
- Water Recycling and Reuse

Environmental Flows and River Health

- Environmental Flow Assessment in Natural Rivers
- Pollutant Transport in Rivers
- Aquatic Ecosystem Connectivity
- Groundwater Contamination and Seawater Intrusion
- Sediment and Flow Interaction
- Water Quality and Ecological Health Monitoring

Groundwater Hydrology

- Groundwater Resource Assessment and Mapping
- Well Hydraulics and Pumping Tests
- Groundwater Flow and Solute Transport Modeling
- Seawater Intrusion in Coastal Aquifers
- Groundwater Contamination and Pollution Forensics
- Planning and Management of Groundwater Development
- Conjunctive Use of Surface and Groundwater Resources

Dams and Appurtenant Structures

- Dam Safety, Monitoring, and Rehabilitation
- Design of Storage and Diversion Dams
- Rehabilitation of Old and Aging Dams
- Hydraulic Transients and Dam-Break Analysis
- Field Investigations for Hydropower and Dam Projects
- Sedimentation in Reservoirs
- Risk Assessment in Hydropower Development
- Stream Flow Turbine Systems

Integrated Water Resources and Irrigation

- Optimal Water Allocation
- Reservoir Operation and Capacity Estimation
- Conjunctive Use Planning
- Irrigation and Drainage Network Design
- Downstream Flow Issues and E-Flows
- Catchment and Basin-Wide Planning
- Water Recycling and Conservation

Coastal, Harbor, and Ocean Engineering

- Coastal and Ocean Environmental Monitoring
- Ports, Harbors, and Navigation Engineering
- Design of Coastal and Offshore Structures
- Seawater Intrusion and Saltwater Management
- Coastal Morphology and Shoreline Changes
- Wave, Tide, and Sediment Dynamics

Climate Change Impacts on Water Systems

- Scientific Understanding of Climate Change
- Impact on Surface and Groundwater Resources
- Climate Effects on Coastal Environments
- Flood and Drought Forecasting in a Changing Climate
- Mitigation and Adaptation Strategies
- Modelling Future Scenarios for Water Availability
- Climate-Resilient Infrastructure Design

Hydro- Hydroinformatics and Smart Water Management

- Large Database Management for Water Systems
- Pre- and Post-Modeling Data Processing Tools
- Geospatial Technologies
- Cyber-Infrastructure for Water Management
- Artificial Intelligence / Machine Learning in Hydrology
- Modelling Tools for Forecasting and Planning
- Decision Support Systems (DSS) for Water Resources

CALL FOR PAPERS

- **Extended Abstract Submission:**

Extended Abstracts (800 - 1200 words) are invited for the presentation in the conference. The abstract submission guidelines can be downloaded from here <https://hydro2025.nitrkl.ac.in/Abstract%20Format.pdf>

- **Paper submission Link:**

<https://cmt3.research.microsoft.com/HYDRO2025>

- **Best Paper Award**

A Best Paper Award will be presented in each technical session under each theme. This award is designated for Early-Career Researchers.

- **Publication Opportunities**

Selected papers shall be published in peer-reviewed international journals (including ISH Journal of Hydraulics Engineering, Scopus, Q2) or Book Chapters.

KEY DATES

Extended Abstract Submission 15-July-2025

Acceptance of Abstract 15-Aug-2025

Registration Deadline 31-Oct-2025

REGISTRATION FEE (Including GST)

Foreign Delegates /Authors	\$500/-
Contributing Authors (ISH Members)	₹4000/-
Contributing Authors (Non ISH members)	₹5000/-
Delegates (Central Govt/State Govt/Academic Institutes)	₹6000/-
Delegates from Public Enterprises/Private Limited	₹7000/-
Student	₹3000/-
Sponsorship (Two Delegates)	₹ 60,000/-
Sponsorship (Four Delegates)	₹ 1,00,000/-
Exhibition	₹ 1,00,000/-

Registration can be done through the link: <https://forms.gle/s7KxzVoVmktHQoha7>

The registration fee includes the conference proceedings, registration Kit, Working lunch, and tea/coffee during the conference. Registration fees can be paid online; QR code are also acceptable. The details are available on the event website

ACCOMMODATION

Would be provided in the Institute Guest House, Hall of Residences subjected to availability and on payment basis.

SPONSORSHIP

The HYDRO conference provides tremendous opportunities to national and international organizations ; central/state government organizations, public sector undertakings, industrial organizations, equipment manufacturers, entrepreneurs, consulting organizations and construction organizations to publicize themselves by being Platinum/Golden/Silver sponsors of the conference. Interested Organizations may contact the Organizing Secretary. The sponsorship fees payable and benefits are indicated below

Platinum Sponsor (INR 5,00,000)

- Full registration for 8 delegates
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PARTICIPATION IN EXHIBITION

Exhibitors desirous to take Bare will make payment for minimum 15 sqm. Under the shell scheme, minimum space will be 9 sqm (3mX3m) and multiple of 3 m. The layout of exhibition plan will be uploaded on the event website. Free hosting of exhibitors' profiles and company website links on the event web portal.

Exhibition Participation Fee :

Bare Space INR 10000 per sqm

Shell Space INR 15000 per sqm

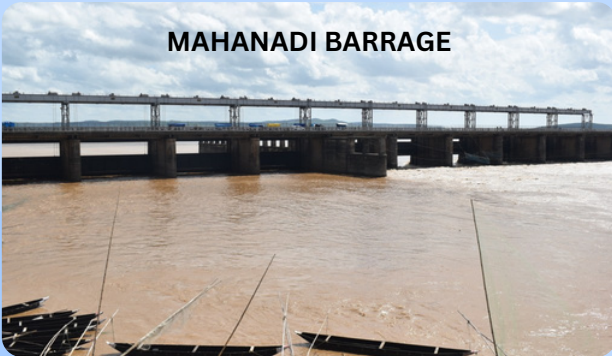
Glimpses

NIT ROURKELA CAMPUS

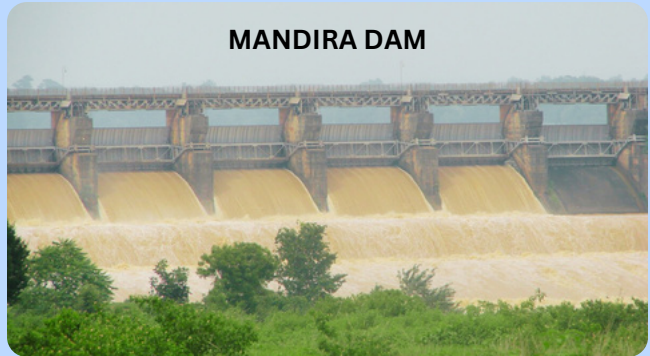


HYDRAULIC STRUCTURES NEARBY

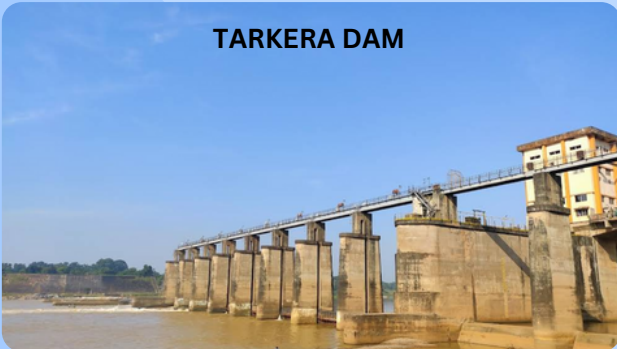
MAHANADI BARRAGE



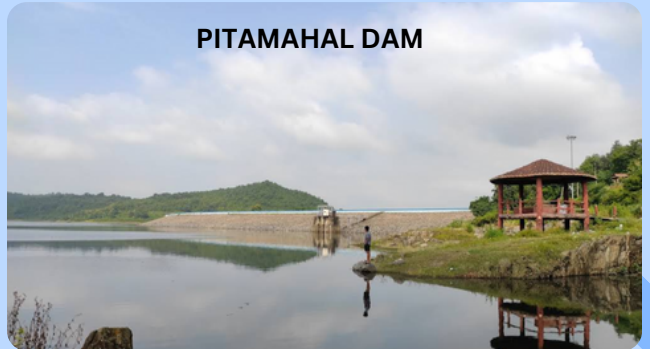
MANDIRA DAM



TARKERA DAM



PITAMAHAL DAM



SIGHTSEEING SPOTS

VEDVYAS TEMPLE



BIRSA MUNDA HOCKEY STADIUM



ROURKELA HILL TOP VIEW



KHANDADHAR WATERFALLS



For Further Details Contact:

Dr. Sanat Nalini Sahoo
Associate Professor
NIT Rourkela
Ph +91 - 88950-71808

Dr. Ratnakar Swain
Assistant Professor
NIT Rourkela
Ph +91 - 96681-20536

Dr. Anurag Sharma
Assistant Professor
NIT Rourkela
Ph +91 - 78150-66232

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NIT Rourkela - 769008, INDIA

Email: hydro2025@nitrkl.ac.in

Website: <https://hydro2025.nitrkl.ac.in>



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