



INDIAN INSTITUTE OF TECHNOLOGY
KHARAGPUR

Under the auspices of the
Platinum Jubilee Celebrations

1951 - 2026



1951 - 2026

4-DAY NATIONAL WORKSHOP

ADVANCES IN CFD MODELLING for HYDRAULICS & COASTAL ENGINEERING

**LIMITED TO
25 SEATS**

Priority will be given to
first come people

ABOUT THE WORKSHOP

Computational Fluid Dynamics has become the working instrument of hydraulic and coastal engineering for scour around a bridge pier, wave loading on breakwater, Flushing in a tidal dock, sediment moving along a shoreline. Yet the distance between running a solver and trusting its answer is large, and it is crossed through practice.



WORKSHOP THEMES

- Experimental Hydraulics
- Coastal & Offshore Modelling
- CFD & Data Analysis
- Software Tools & Demonstrations

WHO SHOULD ATTEND

- UG, PG and research scholars
- Faculty Members
- Young professional
- Engineers and industry professionals
- Participants working in coastal, ocean, offshore, hydraulic or computational modelling areas

DURATION
4 Days

SEATS
Limited to
25 participants

FEE
3000/- ★

SOFTWARE
OpenFOAM® / ANSYS /
REEF3D

ACCOMMODATION
On campus,
payment basis

VENUE & MODE
Department of Civil
Engineering,
IIT Kharagpur

COURSE MODULES

- M1 Basics of CFD
- M2 Boundary conditions
- M3 Case studies in coastal engineering
- M4 Meshing
- M5 Turbulence basics and closure
- M6 Site Visit



DAY-BY-DAY HIGHLIGHTS

DAY / DATE	MORNING	AFTERNOON
Day 1 17 Nov, 26	Inauguration, basics of CFD and the governing equations of fluid flow.	Meshing, grid types, quality metrics, first hands-on session.
Day 2 18 Nov, 26	Boundary conditions, turbulence basics and closure models.	Tutorial problems in Fluent and OpenFOAM.
Gala Dinner will be held on Day 2.		
Day 3 19 Nov, 26	Field visit – Mandarmani / Haldia Dock. 4 field day away from the screen.	—
Day 4 20 Nov, 26	Case studies in coastal and hydraulic engineering.	REEF3D Tutorials, followed by the Valedictory Session and Closing Ceremony.

DAY THREE – FIELD VISIT

To the coast, where the
boundary conditions are real

Participants travel to Mandarmani or the Haldia Dock complex to observe nearshore waves, shoreline changes sediment movement and the engineering built to work with them- the physical counterpart to the week's simulations.

Travel and lunch are arranged by the organizers.



HOW TO APPLY

- Apply through the continuing Education programme IIT Kharagpur.
- Send a short statement of your work and its relevance to CFD in hydraulics and coastal engineering, along with your affiliation.
- Selected participants will be intimated by email. Fee is payable after confirmation.

IMPORTANT DATES

Last date to apply
7th November 2026

Intimation of selection
To be announced

Workshop
17–20 November 2026

RESOURCE PERSONS

Senior Faculties and researchers of IIT Kharagpur and other reputed institutes together with visiting experts from academia, national laboratories and industry working on experimental hydraulics and coastal engineering.



Organized by
Department of
Civil Engineering
Indian Institute of Technology Kharagpur

CONVENOR

Prof. Mohammad Saud Afzal
Department of Civil Engineering
IIT Kharagpur

CO-CONVENOR

Dr. Ali Shariq
Department of Civil Engineering
IIT Kharagpur

CONTACT FOR ENQUIRIES

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★ Needy participants without institutional financial assistance are eligible for registration fee reimbursement.

