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PRESS-RELEASE

IIT (ISM) Dhanbad Hosts Three-Day Workshop on Technological Advances in Hydrodynamic Modelling and Measurement

The Department of Civil Engineering at IIT (ISM) Dhanbad commenced a three-day workshop titled "*Technological Advances in Hydrodynamic Modelling and Measurement: Application in Flood and Streamflow Studies*" today at the Sir Mokshagundam Visvesvaraya Seminar Hall in the Academic Complex of IIT (ISM). The workshop, scheduled from April 3 to 5, was inaugurated by Chief Guest Rishi DS, India Lead for TUFLOW, alongside Prof. Sukumar Mishra, Director of IIT (ISM), who presided over the function.

This specialized course aims to equip participants with a comprehensive understanding of hydrodynamic modelling and measurement techniques. The sessions will emphasize theoretical knowledge, hands-on training, and the latest advancements in numerical and experimental measurements.

The workshop will cover a range of critical topics, including:

- Introduction to hydrodynamic modelling and governing equations
- Application of Computational Fluid Dynamics in hydrodynamic analysis
- Hands-on training with TUFLOW, an industry-leading hydraulic modelling software for flood, urban drainage, estuarine, and coastal assessments
- Development of a basic 2D flood model, analysis of results, and exploration of key flood modelling features
- Incorporating topographic modifications such as buildings, cuts, fills, and development assessments using survey data in TUFLOW
- Demonstration of a rainfall-runoff model using TUFLOW
- Measurement of hydrodynamic parameters such as velocity, pressure, and flow

Speaking at the inauguration, Rishi DS underscored the significance of hydrodynamic modelling and measurement in understanding flood dynamics and streamflow behavior. He emphasized its crucial role in predicting, managing, and mitigating flood impacts while enhancing water resource management.

In his presidential address, Prof. Sukumar Mishra urged attendees to focus on interdisciplinary research rather than limiting their studies to specific areas. He also elaborated on the distinctions between seminars, conferences, and workshops, commending the organizers for selecting such a relevant and timely topic.

Prof. Srinivas Pasupuleti, Head of the Department of Civil Engineering, provided insights into the department's history, ongoing programs, and existing infrastructure. Dr. Bandita Barman, Assistant Professor and organizing secretary of the workshop, highlighted that undergraduate and postgraduate students, research scholars, faculty members, and industry professionals from across the country are participating in the event to explore the latest technological advances in hydrodynamic modelling and measurement.

The event concluded with a vote of thanks delivered by Prof. Renu V of the Department of Civil Engineering.

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