

## ABOUT ROORKEE

According to the legends, when the Gods left their footprints on the land of Haridwar, metaphorically they also left an indelible mark on the spiritual ethos of every Hindu – more so, the devout, who would later follow their holy paths, all across this blessed land. Roorkee is a beautiful city that comes under Haridwar district of Uttarakhand. The city lies on the banks of historical Ganges canal and well connected through Indian Railways and National Highway all near states like New Delhi, Uttar Pradesh, Haryana, Punjab, Himachal, Jammu & Kashmir etc. At the gateway of Haridwar and several other holy shrines of India.

## ABOUT NIDM

National Institute of Disaster Management is a statutory organization under the Ministry of Home Affairs, Government of India, mandated under the Disaster Management Act 2005 NIDM is mandated under section 42 (9) (b) to extend Capacity Building support to state governments and National and State level agencies in the field of Disaster Management & Disaster Risk. NIDM has been mandated by Sub-section 8 and 9, Section 42, Chapter 7 of Disaster Management Act 2005 to develop training modules and educational materials, undertake training, research, documentation and publication for capacity development and dissemination of knowledge/information related to disaster management, assist in formulation of policies, plans, strategies and frameworks for disaster risk reduction and resilience as well as promote awareness among different stakeholders for enhancing human capacity to avoid, prevent, mitigate, prepare, respond and recover efficiently in a proactive, holistic and integrated manner.

## ABOUT NIH

National Institute of Hydrology (NIH) is a premier Research and Development organization under the Department of Water Resources, River Development and Ganga Rejuvenation, Ministry of Jal Shakti, Govt. of India. It was established as an autonomous society in 1978 with its headquarters at Roorkee. The main objectives of NIH are to undertake aid, promote, and coordinate systematic

and scientific work in all aspects of hydrology. The Institute was declared as an S&T organization in 1987.

For Details visit: <https://nihroorkee.gov.in/>

## IMPORTANT DATES

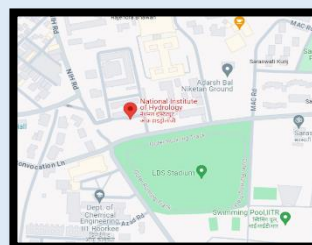
Last date for receiving applications: **August 17, 2024**

Notification of acceptance: **August 19, 2024**

## ORGANISING COMMITTEE

<b>Parton</b>	<ul style="list-style-type: none"><li>➤ <b>Shri Rajendra Ratnoo, IAS,</b> Executive Director, NIDM, Delhi</li><li>➤ <b>Dr. M.K. Goel</b> Director, NIH, Roorkee</li></ul>
<b>Chairman</b>	<ul style="list-style-type: none"><li>➤ <b>Prof. Surya Parkash,</b> Head (Geo- Metrological Risk Management), NIDM, Delhi</li><li>➤ <b>Dr. Anil Kumar Lohani,</b> Scientist G &amp; Head Surface Water Hydrology Division, NIH, Roorkee</li></ul>
<b>Coordinators</b>	<ul style="list-style-type: none"><li>➤ <b>Dr. Ravindra Vithal Kale,</b> Scientist E, SWHD, NIH, Roorkee</li><li>➤ <b>Er. J. P. Patra</b> Scientist E, SWHD, NIH, Roorkee</li><li>➤ <b>Sandeep Kumar Singh,</b> Young Professional, NIDM, Delhi</li></ul>

## ROUTE MAP OF NIH ROORKEE

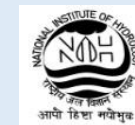


## National Level Training Programme

on

## WATER RELATED DISASTER RISK REDUCTION, CONCEPTS, TECHNIQUES AND ADAPTATION STRATEGIES

**August 27- August 31, 2024**



*Organised jointly by*

**National Institute of Disaster Management**  
Ministry of Home Affairs, Govt. of India  
New Delhi – 110 001  
&  
**National Institute of Hydrology**  
Jalvigyan Bhawan, Roorkee-247667  
Uttarakhand

## BACKGROUND

India faces significant water-related hazards, with over one-eighth of its land prone to floods and nearly 68% of arable land affected by droughts. These impacts can be mitigated through effective risk assessment, preparedness, and recovery strategies. Comprehensive disaster risk reduction involves measures to lessen the effects of floods, droughts, landslides and other hazards on communities and ecosystems. In India, variations in monsoon rainfall increase disaster vulnerability. Floods result from intense rainfall, cyclones, and urbanization, causing extensive damage. Effective strategies include improving early warning systems, promoting sustainable water management, and integrating disaster risk reduction into development planning. By prioritizing proactive measures and cross-sector collaboration, India can enhance resilience and minimize the socio-economic and environmental impacts of water-related disasters.

## COURSE OBJECTIVE

- Understand flood, cloudburst, landslide, and drought hazards, and DRR&R strategies.
- Develop solutions for mitigating and managing floods and droughts.
- Address disaster vulnerability and apply adaptation and resilience techniques for water-related disasters.
- Use modelling tools (e.g., HEC-RAS, RRI, ADCIRC, WRF) and satellite data through hands-on experiments.
- Formulate disaster management plans.
- Enhance collaboration for effective disaster management at various levels.

## COURSE CONTENTS

This course covers understanding water-related hazards like floods, cloudbursts, landslides, and droughts, and DRR&R strategies. Participants will learn techniques for mitigating and managing these hazards, focusing on vulnerability and adaptation for various disasters, including GLOFs, ocean waves, surges, and tsunamis. Practical sessions will include assessment of these hazards using advanced modeling tools such as 1D/2D HEC-RAS,

RRI, WEB-DHM, WRF, and satellite-based data products. Participants will also formulate disaster management plans and discuss strategies for effective collaboration and implementation at national, state, and local levels.

## TARGET AUDIENCE

Officers, engineers, scientists, and faculty from central and state governments involved in water-related disaster risk reduction and resilience, along with relevant institutes, organizations, and agencies. This includes nodal officers coordinating with ministries, departments, NDMA, MHA, NIDM, State Revenue and Disaster Management Departments, SDMA, DDMA, SDRFs, QRTs, NDRF, ATIs, SIRDs, police, researchers, academicians, and motivated doctoral students.

## SPEAKERS

The speakers like faculty members/experts from NIH / NIDM / IIT's / IMD / IIRS and scientists from field organisations and Reputed Institutes/ Consultants in relevant areas would be invited so that sound knowledge and technical input are disseminated to the participants.

## VENUE

Society Room, Jal Vigyan Bhawan, National Institute of Hydrology (NIH) Roorkee, Roorkee- 247667, Uttarakhand

## IMPOTANT NOTE

All the participants are supposed to register online on NIH registration portal (<https://nihroorkee.gov.in/training-activities/training-calendar>). Course fees are exempted for participants. Incomplete registration form shall be rejected. Seats are allocated on a first-come, first-served basis with preliminary screening. The lodging and boarding for selected candidate will be provided in NIH Guest house.

**Registration Link:** <https://forms.gle/mM91kcfp7EMhZfBS9>

## CERTIFICATE

A Certificate will be awarded to the participants on successful completion of the course.

## National Level Training Programme

On

**Water Related Disaster Risk Reduction, Concepts, Techniques and Adaptation Strategies**

**August 27-31, 2024  
(Tuesday to Saturday, 9.30 am to 06 pm)**

National Institute of Hydrology Roorkee  
Roorkee-247667, Uttarakhand, India

## REGISTRATION FORM

NAME (BLOCK LETTERS): \_\_\_\_\_

Gender: M / F

DESIGNATION: \_\_\_\_\_

INSTITUTION / ORGANIZATION: \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

TELEPHONE: \_\_\_\_\_

MOBILE: \_\_\_\_\_

FAX: \_\_\_\_\_

EMAIL: \_\_\_\_\_

Highest Qualification \_\_\_\_\_ Experience : \_\_\_\_\_ Yrs.  
: \_\_\_\_\_

Date:  
Applicant

Signature of

Recommendation

Signature of Head of the  
Institution/Department/Organization with date