

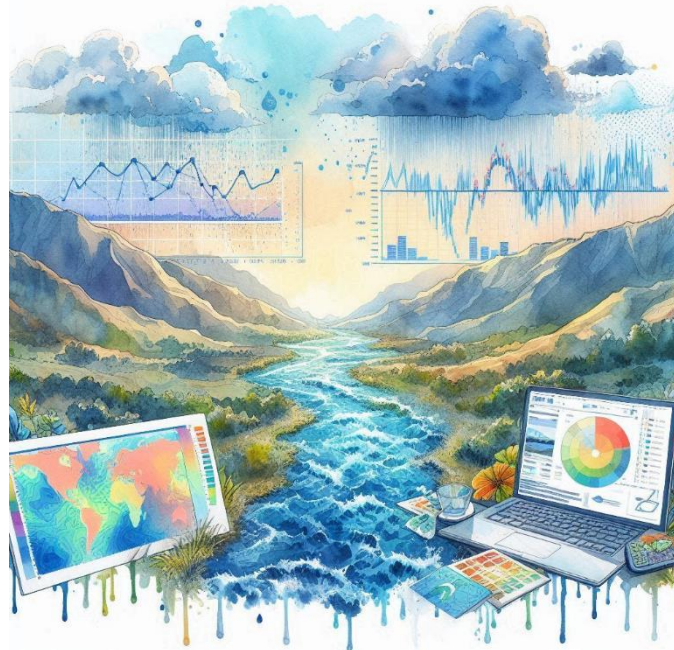
# Training Course on Hydrological Modelling using Satellite-based and Reanalysis Data products 05-09 AUGUST, 2024



Organized by  
**NATIONAL INSTITUTE OF HYDROLOGY**  
**ROORKEE, UTTARAKHAND**  
**India**

## ABOUT THE COURSE

The current water availability scenario asks for its location-specific quantification. Hydrologists perform hydrological modelling to determine the spatio-temporal availability of water. However, data scarcity is a significant limitation for the parametrization of hydrological models. Further, as it has been observed that the resource-limited ungauged areas are facing more water-related issues, the international hydrologic community has emphasized the prediction in the ungauged basins. Using satellite-based and reanalysis global data products seems a plausible solution. In this context, the participants will be introduced to the concepts of hydrological models, modelling, the different satellite-based and reanalysis global products available, and modelling using these data products.



Microsoft Copilot. (2024). Hydrological Modelling Using Satellite Based and Reanalysis Data Products [Digital image]. Generated by AI.

## COURSE CONTENT

The training program will be conducted in physical mode. It consists of lectures and hands-on exercises by experts in hydrological modelling. The participants will be introduced to open-source hydrological models, viz., HEC-HMS and SWAT. Also, the participants will be introduced to the basics of satellite-based and reanalysis data products, downloading, processing, and analyzing the data. Further, hands-on training will be given on database preparation for HEC-HMS and SWAT and calibration of both models.

## WHO CAN PARTICIPATE

This course is tailored for officials, field engineers, and faculty members from the State and Central Government Ministries/ Departments/ Institutions, and Research Scholars and PG students (restricted to max. 20% of total), working in the field of hydrology and water resources engineering.

## ABOUT THE INSTITUTE



The National Institute of Hydrology (NIH) is a premier R&D organization under the Department of Water Resources, River Development & Ganga Rejuvenation of the Ministry of Jal Shakti, Government of India, established 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 an S&T organization in 1987. NIH is an ISO 9001:2008 Certified organization. It is a Center of Excellence for pursuing research activities in hydrology and water resources, emphasising technology transfer and demand-driven, user-defined, strategic research. The NIH has headquarters at Roorkee and seven Regional Centres located at Bhopal, Belgaum, Guwahati, Jammu, Jodhpur, Kakinada, and Patna.

## REGISTRATION

There is no registration fee for participation. However, the **candidate needs to be sponsored by their Institution**. The participants will have to arrange for TA/DA and any other expenditure to participate in the course from their own organization/institute. **A certificate will be given to all participants**. Also, the participants are encouraged to carry laptops to do hands-on exercises during the course.

It is intended **to register only a limited number of participants (25) for this training program**. Interested participants are required to fill in the **registration form through the online link no later than 15-July-2024**. The selection of participants will be done based on the qualification, experience, and area of interest of the candidates. For accommodation, the Guest House facility of NIH Roorkee can be availed on a payment basis, depending on availability.

### Registration Link:

<https://forms.gle/AAU7uTA97fxJHNDR7>



### PATRON

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## VENUE

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