

NATIONAL WATER ACADEMY, PUNE  
8<sup>th</sup> International Distance Learning Course in Basic Hydrologic Sciences for Asian  
Region (WMO RA II)  
07 July 2025 – 18 August 2025  
**REGISTRATION FORM**



**GOVERNMENT OF INDIA  
MINISTRY OF JAL SHAKTI,  
DEPARTMENT OF WATER RESOURCES,  
RIVER DEVELOPMENT & GANGA REJUVENATION  
CENTRAL WATER COMMISSION**



**8<sup>th</sup> INTERNATIONAL DISTANCE LEARNING COURSE  
IN BASIC HYDROLOGIC SCIENCES FOR ASIAN REGION  
(WMO RA II)**

**07 July 2025 – 18 August 2025**

**Organized by  
NATIONAL WATER ACADEMY**

**in association with  
WORLD METEOROLOGICAL ORGANIZATION**

Participants Detail	
Name (in Capital)	
Designation	
Date of Birth	
Gender	
Name of Organization	
Responsibilities (in brief)	
Full Postal Address	
State / Country	
Telephone No (with STD Code)	
Mobile Number	
Email	
Date (Signature of the participant)	
Sponsoring Authority	
Full Postal Address	
Telephone No (with STD Code)	
Mobile Number	
Email	

Date (Signature and Seal)

Completed Registration Form may be sent by email to:  
nwa.mah@nic.in directorrm-nwa@gov.in

## INTRODUCTION

While Planet Earth is endowed with abundant water, the needs for water at specific times and places often exceed the available supplies. Efforts to utilize this precious resource often result in adverse social and environmental impacts, causing disruption of water supplies to downstream users, and the loss of aquatic habitats. In addition to conflicts over water availability, the quality of water is often compromised.

The branch of geophysics, which deals with the occurrence, movement, and quality of water on, above and below the surface of the Earth as vapor, liquid or solid state, is termed as Hydrology. Hydrology plays an important role in

- Effective management of surface water & ground water resources for domestic, agricultural, commercial, industrial, recreational and ecological uses.
- Protecting and enhancing water resources for human health, aquatic health and environmental quality.
- Minimizing loss of life and property as a result of water-related natural hazards, such as floods, droughts and landslides.
- Contributing to physical and economic development of a nation's resources for the benefit of present and future generations.

The distance learning program in *Basic Hydrological Sciences, Core Topics* is designed to meet the needs of officials, who work with hydrologic data, particularly in the areas of flood forecasting and design flood analysis etc. The course (in English only) is intended to provide an understanding of the hydrological cycle, runoff processes, unit hydrograph theory, flood forecasting, flood data analysis, elements of hydrologic modeling etc., and will prepare the participants for further study in hydrologic methods and forecasting.

## PROGRAM OBJECTIVE

Upon completion of this course, participants will be able to:

- Understand the elements of the hydrologic cycle
- Explain the rainfall runoff process
- Understand how to measure river discharge
- Describe the process of stream flow routing and modelling methods used
- Derive and use a unit hydrograph for forecasting flows
- Apply statistical methods to assess flood risk
- Explain important differences between floods and flash floods
- Apply your knowledge of hydrologic sciences to a flood forecasting case

## PROGRAM FORMAT

The program contains 8 mandatory online modules including a flood forecasting case study. In addition, two optional modules will be provided for further learning, but completion of the optional modules is not required. Participants will be required to complete an online quiz at the completion of each module. The course will also include minimum two live events (webinars) to be attended via internet at the start and close of the course, as well as weekly online communications with faculty and fellow participants. The live sessions and online communications will allow participants to ask questions, share their issues and experiences, and learn more deeply by discussing the course content with their peers and the faculty.

In addition to covering the course content, each participant will be required to complete a short final assignment. All the activities (modules, quizzes, assignments etc.) will be online at the program website at <https://etrp.wmo.int/>. On successfully completing the course assignment and the online quizzes for each module, the participants will be awarded a certificate of completion.

It is estimated that the dedication needed to successfully complete this course is a total of about 21-25 hours, or an average of about 4-5 hours/week. As this is an online course, the officials can participate in the program without taking any leave from the office. The sponsoring authority will have the responsibility of sparing the nominated officers from their routine work for those many hours during the program period and give them access to a computer with broadband.

## FACULTY

The faculty will be drawn from the faculty of NWA and experts from WMO and CWC. The faculty will be available for online and offline interaction during the program duration.

## TARGET GROUP

The DL program is intended to benefit the officers (hydrologists/meteorologists) working in State and Central Govt. agencies involved in the Water Resources Development and Management. Computer skills and aptitude for this subject is a pre-requisite. Participants must have access to a broadband connection at home or at office.

## PROGRAM FEE

There is no program fee.

## PROGRAM INFORMATION

- **Program Duration:** 📅 07 July 2025 – 08 August 2025 (5 Weeks)
- **Final Assignment Submission Deadline:** 📅 11 August 2025
- **Concluding Webinar:** 📅 18 August 2025

## PARTICIPATION

The nomination of the officers (for India) fitting the target profile may be sent to the Program Director latest by 01<sup>st</sup> July 2025. Confirmation on acceptance of nominations will be sent by email by 02<sup>nd</sup> July 2025. Nominated/Sponsoring officers may please indicate their Mobile No. and E-mail address for timely information on this account. The accepted participants will be provided with an enrollment key to enable them to login on to the program website. The nominated officers have to attend this program from their existing place of duty and they are not supposed to come to NWA for the same.

## CONTACT

For sending nominations or for any information of this Program, Please contact:

### Shri Asheesh Kumar Singhal

Director National Water Academy, CWC & Program Coordinator

Khadakwasla, Sinhagad Road, Pune – 411 024

Tel: 020 – 24381212 ; Mobile Number : 91 -9555986777

E-mail: [nwa.mah@nic.in](mailto:nwa.mah@nic.in)/ [directorm-nwa@gov.in](mailto:directorm-nwa@gov.in)

Website: <https://www.nwapune.gov.in>