



**Government of India
Ministry of Jal Shakti
Department of Water Resources,
River Development & Ganga Rejuvenation**



**Training Program on
'Application of Remote Sensing & Geographical
Information Systems in Water Resources Sector'
22 September 2025 – 01 October 2025**



**Organized by
NATIONAL WATER ACADEMY
CENTRAL WATER COMMISSION, PUNE**

INTRODUCTION & BACKGROUND

Remote Sensing (RS) and Geographic Information System (GIS) technologies hold immense potential in the water resources sector—ranging from the assessment of resources, planning, and development, to their efficient management for diverse purposes. In today's context, basic literacy in RS and GIS has become essential for water resources professionals. A sound understanding of these technologies enables engineers and practitioners to design workflows for spatial and temporal analysis of hydrological processes, thereby supporting better decision-making.

This training program has been designed as an introductory course, covering the fundamentals of RS & GIS, and their applications in the water resources sector. The program includes thematic sessions on various applications as under and hands-on exercises to build practical skills in geospatial analysis.

- Basics of RS & GIS; Overview of RS & GIS applications in water resources sector; Open Access Software and Geospatial Datasets
- Applications of RS & GIS in Water Resources Sector – Hydroprocessing of DEM & Catchment Delineation, Water Resources Assessment at Basin Level, LULC Mapping, Assessment of Reservoir Sedimentation, Estimation of ET, Rainfall Analysis and Drought Monitoring, Crop Mapping and Irrigation Water Management, Inputs for Hydrological Modelling, Watershed Management, Glacial Lakes and Snow Cover Mapping, Flood Mapping & Monitoring, Water Quality Monitoring
- Overview of Google Earth Engine
- Recent trends in Satellite Hydrology

PROGRAM FORMAT

The program will be held in person at the National Water Academy (NWA) campus in Pune. Training Sessions will be held for 9 days except on 28.09.2025(Sunday). Resource persons from NWA/CWC and ISRO, DoS units will act as guest faculty members for various sessions.

TARGET GROUP

Professionals of the Central and State Water Resources and Irrigation Departments and other interested stakeholders.

Note: Participants should bring their own laptop for completing hands-on exercises.

PROGRAM FEE

There is no program fee for participants from Central and State Govt. departments. Charges for participants from other agencies are as follows:

Category	Description	Fee per participant
A	Central/State Government/Departments including their autonomous bodies	Nil
B	'Not for Profit' Organizations/authorities/ bodies of Central and State governments (if they certify that they are not for profit)	Nil
C	Recognized academic institutions, NGOs	2,700/-
D	Central and State PSUs	18,000/-
E	Private Companies, individuals	27,000/-

• *Discounts applicable: (a) 50% for PSUs of MoJS i.e. WAPCOS & NPCC (no group discount); (b) For others – 20% discount for 3-4 participants; 30% discount for 5 or more participants from the same organization*

LOCATION

National Water Academy is located on the south-western side of the Pune city on Pune-Sinhgad Road between Nanded Phata and Kirkatwadi villages. It is 12 Kms from Swargate Bus Stand, 18 Kms from Pune Station and 29 Kms from Pune Airport.

[Click here for directions from Pune Airport to NWA](#)

[Click here for directions from Pune Railway Station to NWA](#)

LOCAL HOSPITALITY AND WEATHER

NWA has a self-contained residential campus, and all out-station participants would be provided with accommodation in the NWA hostels, which are comfortable and fully furnished (viz. television with cable connection, refrigerator, micro-oven, tea maker, intercom etc.). Meals are available (self-service dining) in Canteen/Mess which is on the same residential campus. Participants (except for CWC officers) are required to pay for lodging and boarding charges, which are nominal. Officers from CWC will be provided with lodging and boarding free of cost. During the month of September, normally the weather is typically rainy and warm, with temperatures ranging between 20°C to 29° C

PARTICIPATION

The nomination of the officers fitting the target profile may be sent by 18.09.2025. Nominated officer may also fill in the online registration form: <https://forms.gle/QXmzJq4RUoeRHRN47>

The list of accepted nominations will be displayed on the NWA website <https://www.nwapune.gov.in/ongoingevents.jsp> on 19.09.2025

CONTACT

For sending nominations or for any information on this program, please contact:

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