

INTRODUCTION AND 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.

- Overview of GIS & RS, QGIS installation, toolbars and plugins
- Downloading open access data with hands on
- Vector and Raster data, Adding layers and visualization , Creation of basic map in GIS with hands on
- Attribute table & operations thereon, Working with excel files, Geo-referencing and digitization, Conversion of raster to vector, Geo-tagging- With hands on
- Working with DEM, Contour Generation, Watershed delineation- With hands on
- Watershed delineation (contd.)- with hands on
- Mapping of water bodies, LULC mapping- With hands on

RESOURCE PERSONS Resource persons from NWA will act as guest faculty members for various sessions.

DURATION

The program is for 3 days' duration scheduled during 23-25 June 2026. The participants are expected to reach NWA by the evening of 22 June 2026 and should plan to leave only after 1900 Hrs. 25 June 2026.

PROGRAM FEE

There is no program **fee for participants from CWES.**

VENUE

National Water Academy, CWC, Pune-Sinhagad Road, Khadakwasla, Pune – 411024

TARGET GROUP

This training course is intended for Deputy Directors / Directors or equivalent

CWES officers. **Participants are requested to bring their own laptops so that they can independently complete the hands-on with their data.**

HOW TO APPLY

- The participants are requested to send their nominations in the Nomination form given in the brochure through email to nwa.pune@gmail.com / kumar.kushal@gov.in. The last date of sending nomination is **18.06.2026**.
- All nominated and interested participants shall register in the google form given at: <https://forms.gle/jXVcP2Qe2vUxUHcC6>
- The nominated officers/personnel are requested to start their journey for the program only after confirmation of their nomination. The accepted nominations will for displayed on NWA's website on 18 June 2026 in the evening.
- All participants whose nominations are accepted by the NWA, Pune will now be required to register on e-learning platform of NWA i.e <https://elearning.nwapune.co.in>. After completing the registration & login to the e-learning website of NWA, they are also required to enroll themselves for the program "**Basics of GIS and Remote Sensing**" scheduled during 23 - 25 June 2026. The enrollment key will be shared with the participants after their nomination is confirmed by NWA. The links for various activities of the training program as well as the presentation material will be made available on this platform.

ACCOMODATION

Participants will be provided with free lodging & boarding facilities. Airport/ Railway station pickup/drop will have to be arranged by the trainee officers themselves.

WEATHER

In June, Pune experiences a little warm but pleasant weather. The average maximum temperature during the day ranges from 30 to 35 degrees Celsius, while the average minimum temperature at night ranges from 22 to 25 degrees Celsius.

CONTACT

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

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