

**NATIONAL INSTITUTE OF HYDROLOGY  
MAJOR LABORATORY FACILITIES AT ROORKEE**

**HYDROLOGICAL INSTRUMENTATION**

- Collection, transmission and processing of Hydrometeorological data.
- Design & development of Hydrometeorological instruments and data acquisition system.
- Flow/discharge measurement
- Infiltration rate measurement
- Measurement of water level in wells
- Water sampling from rivers, lakes etc.

**NUCLEAR HYDROLOGY**

- $C^{14}/H^3$  dating of ground water
- Discharge of rivers
- Ground water velocity measurements
- Leakage / seepage detection from dam / reservoir
- Environmental tritium enrichment
- Recharge to ground water
- Soil moisture measurement
- Stable isotopic measurements

**REMOTE SENSING APPLICATIONS**

- Visual and digital image processing
- Ground water zonation mapping
- Flood plain mapping
- Land use mapping
- Soil erosion and sedimentation studies
- Snow cover mapping
- Salinity and water logging mapping

**SNOW AND GLACIER LABORATORY**

- Streamflow measurement in high altitude regions
- Analysis of snow cover
- Degree-day factors for snow and ice melt
- Assessment of suspended sediment concentration
- Modelling of streamflow and snowfed rivers
- Hydrological investigations on glaciers

**SOIL WATER**

- Determination of Soil moisture characteristic Curves (0.1 to 15 bar)
- Determination of Soil suction (0 to 0.85 bar)
- In-situ soil moisture measurement
- Permeability measurement
- Particle size analysis of soil
- Infiltration rate measurement
- Soil density measurements

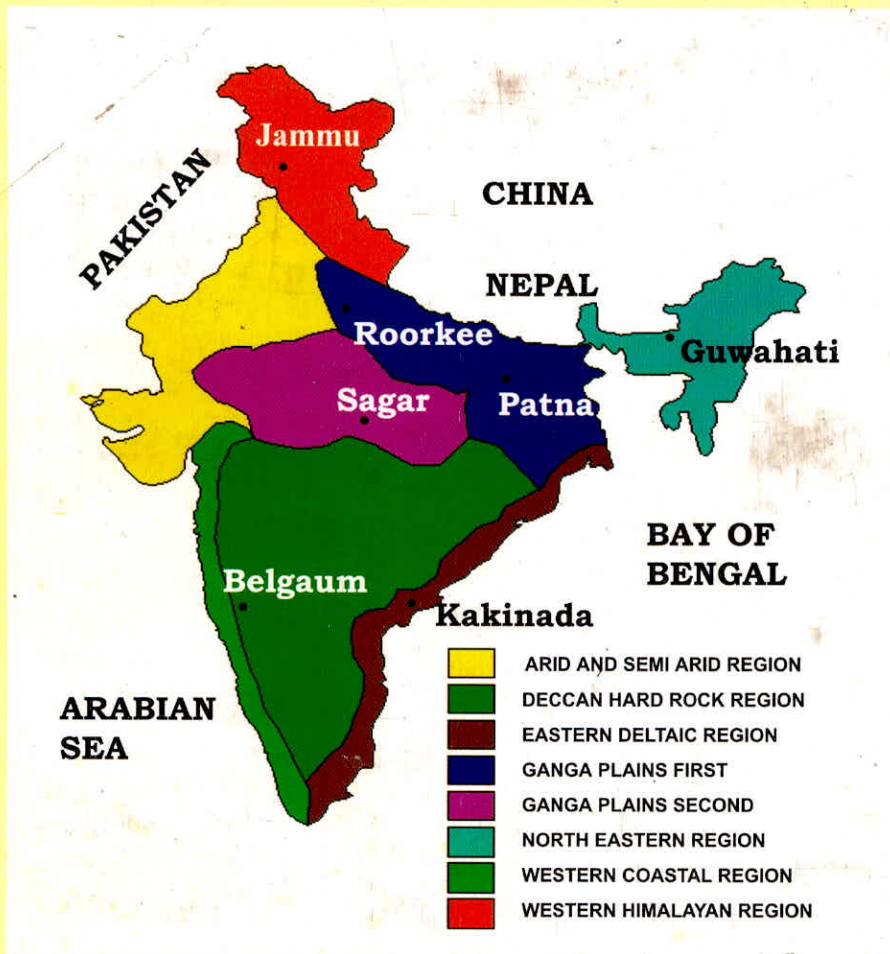
**WATER QUALITY**

- Analysis of organic carbon, inorganic carbon, total carbon
- Analysis of pesticides & organic compounds
- Bacteriological analysis
- Digestion of BOD & COD samples
- Field measurement of pH, conductivity, and anions
- Analysis of trace elements.

**FACILITIES AT REGIONAL CENTERS**

- Hydrological modeling & analysis
- Digital image processing and GIS
- Groundwater exploration
- Hydrometeorology
- Remote sensing application
- Soil moisture measurements
- Soil sampling & analysis
- Water Quality

## REGIONAL CENTRES OF NATIONAL INSTITUTE OF HYDROLOGY



**Hard Rock-Regional Centre**  
National Institute of Hydrology  
Plot No. 11, 1st Main, 2nd Cross  
Hanuman Nagar, Race Course  
Belgaum - 590 001 (Karnataka)  
Phone : 0831 - 2447714  
Fax : 0831 - 2447269  
E.Mail: nihhrrc@sancharnet.in

**Centre for Flood Management Studies  
(Brahmaputra Basin)**  
National Institute of Hydrology  
Sapta Shahid Path, G. S. Road  
Mathura Nagar, Dispur  
Guwahati - 781 006 (Assam)  
Phone : 0361 - 2331150  
Fax : 0361 - 2228823  
E.mail: nercnih@yahoo.com

**Western Himalayan Regional Centre**  
National Institute of Hydrology  
Irrigation & Flood Control Complex  
Opp. Military Hospital, Satwari  
Jammu Cantt - 180 003 (J & K)  
Phone : 0191 - 2432619  
Fax : 0191 - 2450117  
E.mail: whrcnih@sancharnet.in

**Centre for Flood Management Studies  
(Ganga Basin)**  
National Institute of Hydrology  
WALMI Complex, Khagaul  
P.O. Phulwari Sharif  
Patna - 801 505 (Bihar)  
Phone : 0612 - 2452219  
Fax : 0612 - 2452227  
E.mail: nihp@satyam.net.in

**Deltaic Regional Centre**  
National Institute of Hydrology  
Siddarth Nagar  
Kakinada - 533 003 (Andhra Pradesh)  
Phone : 0884 - 2372254  
Fax : 0884 - 2350054  
E.mail: nihr@ego.ap.nic.in

**Ganga Plains South Regional Centre**  
National Institute of Hydrology  
278, Manorma Colony  
Sagar - 470 000 (Madhya Pradesh)  
Phone : 07582 - 228021  
Fax : 07582 - 221943

**For further information please contact:**

**Director**  
National Institute of Hydrology  
Jal Vigyan Bhawan  
Roorkee - 247 667 (Uttaranchal)  
Phone : 91 - 1332 - 272106  
Fax : 91 - 1332 - 272123  
E.mail: kdsharma@nih.ernet.in  
Web : www.nih.ernet.in