Training Program on
"Pumped Storage Hydroelectric Projects"
09 – 18 March 2026

REGISTRATION FORM

Name (in capitals):_____

Designation_____

Organization:_____

Responsibilities (in brief):_____

_____

Full Postal Address:_____

_____

Tel Nos. (with STD Code):_____

Fax No: _____ Mobile:_____

E-mail:_____

Whether require accommodation at NWA complex? YES / NO

Date **(Signature of the participant)**

SPONSORING AUTHORITY

Full Postal Address:_____

_____

Tel Nos.(with STD Code) :_____

Fax No:_____ Mobile :_____

E-mail:_____

Date **(Signature and Seal)**

Completed Registration Form may be sent by nwa.pune@gmail.com;

Government of India
Ministry of Jal Shakti,
Department of Water Resources,
River Development & Ganga Rejuvenation
Central Water Commission
NATIONAL WATER ACADEMY, PUNE

Training Program on
Pumped Storage Hydroelectric Projects
09 – 18 March 2026

Organized by

National Water Academy, Pune

INTRODUCTION AND OBJECTIVES

With India's energy scenario evolving toward more renewable energy sources such as solar and wind, the need for energy storage has emerged. With rising renewable energy capacity additions in India to fulfill the 500 GW target by 2030, grid dependability and stability are critical. Pumped storage power plants have already proven to be the most sustainable method of energy storage, contributing significantly to a sustainable energy future. Pumped storage technology, in particular, will play an essential role in fulfilling future energy demand in India. India plans to reach net-zero emissions by 2070, starting with a 50% renewable energy target by 2030. Hydro Pumped Storage Projects are required to assist India in meeting its commitment to achieve 500 GW of installed capacity from non-fossil fuel sources by 2030 and Net Zero carbon emissions by 2070. Hydro Pumped Storage Projects (HPSPs) will aid in the integration of intermittent renewable energy into the grid. It will enable the supply of dispatchable RE power while also assisting the Grid in meeting peak requirements. Given the project's significance, 39 HPSPs totaling 47 GW are being pursued for completion by 2029-30. India is currently constructing numerous huge, pumped storage power plants. The Ministry of Power, Government of India, has issued guidelines for the introduction of pumped storage power plants in 2023, as they could be a key technology for India's renewable energy future. India has estimated that it will require at least 18.8 GW of pumped storage hydropower capacity to support the planned integration of wind and solar into the Indian grid by 2032, and possibly more if other energy storage systems are not financially viable. The Indian government recently increased its estimate of pumped storage hydropower potential from 96 GW to 106 GW. The new guidelines establish a much-needed framework for the development of new pumped storage facilities across the country, bringing the government's efforts in line with those of India's states. It is envisaged that in future the focus will change on the type of hydropower, a shift will occur from run-of-river to pumped storage combined with 'other alternative renewable energy resources' to ensure energy security.

Building the organization and individual capacities to achieve this gigantic task of planning and development of Pumped Storage Hydroelectric Projects is very much essential. Also, there is a need for a structured capacity building approach for building the capacity building of personnels involved in this endeavor. Two-week (10 days) Training Program on **"Pumped Storage Hydroelectric Projects"** has been conceptualized by NWA to provide an insight into the various issues involved in planning and development of Pumped Storage Hydroelectric Projects

PROGRAM CONTENTS

Main topics for technical sessions are:

- Pumped Storage Hydroelectric Projects in India – an overview
- Power Potential Studies and fixation of installed capacity for PSHEPs.
- Hydrology and Planning of PSHEPs
- Sedimentation Studies of Pong Reservoirs, Himachal Pradesh.
- Deriving Operating rules for mixed pumped storage plant: Kadamparai Project
- Geotechnical Investigation for PSHEPs
- Design Aspects of PSEPS – Dam & Storage, Water Conductor system, transient phenomenon and Powerhouse
- Plant Layout of PSHEPs
- Design aspects of electromechanical & Hydromechanical equipment of PSHEPS
- Financial viability including tariffs of PSHEPs.
- Model Studies
- New Technologies in PSHEPs
- Challenges in preparing and evaluation of DPR for PSHEPs
- Case Studies & Project Visits
- etc

TARGET GROUP

Graduate Engineers (BE/BTech) with some years of work experience in the field of Planning/design/implementation/maintenance of water resources structures, of the levels of Superintending Engineer/Executive Engineer, Assistant Executive Engineer, Assistant engineer, Junior Engineers.

PROGRAM FEE

Charges for participants from various categories are as below:

	Description	Fee in ₹ (per participant)
A.	Central/State/Local Government Depts. including their autonomous bodies:	Nil
B.	'Not for Profit' Central and State PSUs	Nil
C.	Recognized academic institutions, NGOs	2700/-
D.	Central and State Public Sector Undertakings	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.

Payment for the program fee, if applicable, is to be deposited with NWA before the commencement of the program. Payment is accepted through Online / Demand Draft without deducting any TDS. DD drawn in favour of PAO-Ministry of Water Resources payable at Pune or through electronic transfer in the Account details given below:
Account holder name: PAO - Ministry of Water Resources, Account No: 11382328092; IFSC Code: SBIN0001904.

RESOURCE PERSONS

The resource persons for the program would be subject experts from CEA, CWC, CWPRS, GSI, NIH, State Government Organization, Retired/Private Experts etc.

DURATION

The program is of ten days duration scheduled for **09-18 March 2026**. The participants are expected to reach NWA by the evening of 8th march and should plan to leave only after 1900 Hrs. 18th March 2026. The inauguration of the programme will start at 10.00 AM on 9th March 2026.

VENUE

National Water Academy, Khadakwasla, Sinhgad Road, Pune-411 024 (for more info on NWA, visit http://nwa.mah.nic.in)

PARTICIPATION

The nomination of the officers fitting the target profile may be sent to the Program Coordinator latest by **26th February 2026** through email (nwa.pune@gmail.com; directordes-nwa@gov.in) by 17.00 Hrs. The Accepted List of nominations will be displayed on NWA website by **27th February 2026**. The nominated officers are requested to start the program only after confirmation of their nomination in the list.

ACCOMODATION

The trainee officers would be accommodated in NWA hostel on applicable payment basis. Lodging & boarding charges as per government rates (about Rs.275/- per person per day) will have to be borne by the participants. Working Lunch during the training program will be provided by NWA (participants from CWC will be provided free lodging & boarding facilities). Participants will have to bear breakfast, evening snacks and dinner charges, as applicable. Airport/ Railway station pickup/drop will also have to be arranged by the trainee officers themselves.

WEATHER

During the month of March, the average temperature of Pune may be around 30°C.

CONTACT

Shri Vivek Kumar Verma, Director & Course Coordinator
National Water Academy, CWC, Khadakwasla R S ,Pune – 411 024
Mobile: # 9140706811 Email: nwa.pune@gmail.com ; directordes-nwa@gov.in