# NATIONAL WATER ACADEMY, PUNE International Distance Learning Program in: Advanced topics in Hydraulics, Hydrological Sciences and Hydro-meteorology for professionals from RA-II (Asian) countries (19 March – 4 May 2018)

#### **REGISTRATION FORM**

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Designation
Date of Birth
Organization:
Responsibilities (in brief):
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SPONSORING AUTHORITY
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## GOVERNMENT OF INDIA MINISTRY OF WATER RESOURCES CENTRAL WATER COMMISSION



### INTERNATIONAL DISTANCE LEARNING PROGRAM IN

Advanced topics in Hydraulics, Hydrological Sciences and Hydro-meteorology for professionals from RA-II (Asian) countries

(19 March - 4 May 2018)

Organized by
NATIONAL WATER ACADEMY

in association with

WORLD METEOROLOGICAL ORGANIZATION & The COMET Program, NWS/NOAA, USA

Completed Registration Form may be sent by Fax to: 020-24380110 or email to <a href="mailto:nwa.mah@nic.in">nwa.mah@nic.in</a>

#### 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 and movement of water in terms of quantity and quality on and below the surface of the earth except the oceans, in vapour, 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.

NWA conducted Distance learning programs in Basic Hydrological sciences in the past which were 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 advanced course is designed to meet the needs of hydrological forecasting who require more advanced training in selected hydraulic and hydrological modeling topics. This advanced course is only open to the participants who have successfully completed the Basic Course.

#### **PROGRAM OBJECTIVE**

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

- Understand distributed hydrological models for flow forecasting
- Have a basic understanding of methods and techniques used in ensemble streamflow prediction
- Describe basic features of the dam failure Modelling process
- Understand various aspects of Tropical Meteorology
- Understand Climate variability and Change
- Define key motivations and purposes of performing forecast verification

#### PROGRAM FORMAT

The program contains 10 online modules including a flood forecasting case study. In addition, participants can complete 1 (Out of four) optional module as per their interest. 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 course 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 viz. modules, quizzes, assignments etc. will be online at the program website at <a href="http://etrp.wmo.int">http://etrp.wmo.int</a> On successfully completing the course assignment and the online quizzes for each module, the participants will be awarded certificate of completion.

It is estimated that the dedication needed to successfully complete this course is a total of about 35-40 hours, or an average of about 6-8 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 core faculty of NWA and experts of the relevant topics from World Meteorological Organization (WMO), the COMET® Program and the National Weather Service/National Oceanic and Atmospheric Administration (NWS/NOAA) of USA. 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) in the rank of AE/AEE/EE or equivalent, 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. There will be about 50 participants for this course; 20 participants (to be nominated by WMO) will be drawn from countries of Regional Association – II, WMO (Asian Countries) and about 30 participants from India. This advanced course is only open to the participants who have successfully completed the Basic Course. (Those who have already completed the Advanced course, need not apply again.)

#### **PROGRAM FEE**

There is no program fee.

#### **PROGRAM DURATION**

19 March - 4 May 2018

#### **PARTICIPATION**

The nomination of the officers (for India) who have successfully completed the Basic Course and fitting the target profile may be sent to the Program Coordinator latest by 12<sup>th</sup> March 2018. Confirmation on acceptance of nominations will be sent by fax/email by 13<sup>th</sup> March 2018. Nominated/Sponsoring officers may please indicate their Fax No./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:

#### Dattakumar Chaskar

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