

**NATIONAL WATER ACADEMY, PUNE**  
**Purpose Oriented Training Program on**  
**GIS Based Mapping of Flood Assets**  
**(14<sup>th</sup> Dec 2020 – 18<sup>th</sup> Dec 2020)**

**REGISTRATION FORM**

Name  
(in capitals): \_\_\_\_\_

Designation \_\_\_\_\_

Organization: \_\_\_\_\_

Responsibilities in brief)  
\_\_\_\_\_  
\_\_\_\_\_

Full Postal Address:  
\_\_\_\_\_  
\_\_\_\_\_

Tel Nos.(with STD Code) :

Fax No: \_\_\_\_\_

Mobile : \_\_\_\_\_

E-mail ID: \_\_\_\_\_

The Registration also can be done through online using the link  
<https://forms.gle/9RcaYNxyCxcgV6pzh7>



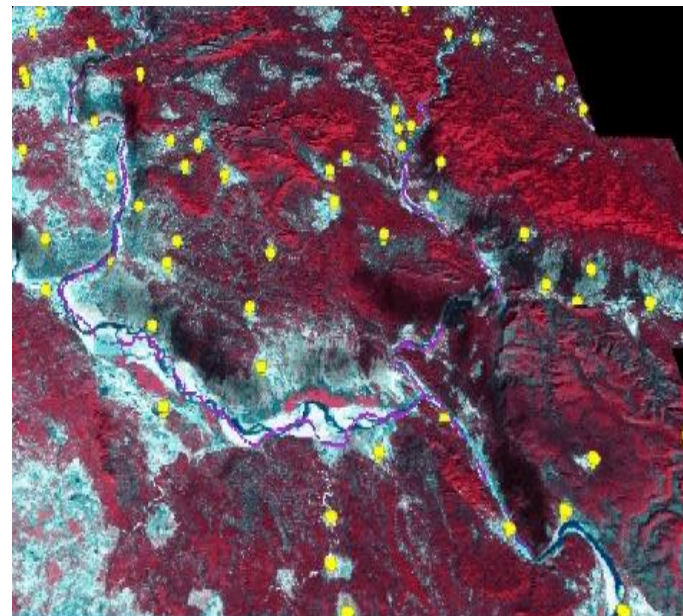
**Completed Registration Form may be sent byFax to: 020-24380110**



**Government of India**  
**Ministry of Water Resources,**  
**River Development and Ganga Rejuvenation**  
**Central Water Commission**



**Purpose Oriented Training Programme on**  
**GIS Based Mapping of Flood Assets**  
**(14<sup>th</sup> Dec 2020 – 18<sup>th</sup> Dec 2020)**



**Organized by**  
**NATIONAL WATER ACADEMY & REGIONAL**  
**TRAINING CENTRE FOR WMO, PUNE**

## INTRODUCTION

Encapsulating the maps and images into data infrastructure through water resources management strategies through space technology is the need of the hour and the emphasis on information transparency and sharing, with the recognition that the spatial information is vital for flood studies, citizens, and government have a right to access it, appropriately. The GIS and remote sensing tools can be used for solving real-world problems and complex issues concerning water resources development. Spatial technology can help the floodplain managers to create accurate and current flood plain maps, flood assets maps with improved efficiency and speed at a reasonable cost. Flood Assets Maps are more helpful in monitoring and evaluation of the Flood management project if data is available on GIS MAP format.

The aim of this Distance Learning training program is to give awareness regarding GIS technology and learn its use to create a basic GIS MAP using Open Source GIS (QGIS 3.12). This training would enable the water professionals to map the Assets of Flood management projects like Flood Embankments, bunds, dikes, spurs, levees, and seawalls and also in the presentation of data in a GIS MAP format. The program has been designed in such a way that the participants will have to devote only about their two/three hours daily, as per his/her choice, during the training period and will not affect much in their day-to-day official work. A Whats App group of the participant's would also be created for clarifications and hand holding by the experts for some period.

## PROGRAM CONTENTS

The program will mainly cover following topics:

1. Working with Vector data using QGIS 3.12, classification of Vector Data, symbology and labeling the data.
2. Designing User Defined Symbols in QGIS
3. Creation of vector data using Digitization process using QGIS
4. Remote Sensing Image Interpretation Techniques to identify Various Civil Structure in the image
5. GIS Application for Mapping of various Control Structures like Dam, Flood Embankments, bunds, dikes, spurs, levees including rivers, reservoirs, etc using Google Satellite Image in QGIS 3.12.
6. Advance Digitization Methods in QGIS
7. Download already available Vector data like national, state and district boundaries, rail/road network from Internet for the inclusion of the same into Flood Assets Map.
8. Generation of final GIS MAP and exporting into printable format.

## PROGRAMME FORMAT

Program contains online lecture modules (series of voice PPTs, Videos of practical hands-on using QGIS 3.12 and Quizzes) and Discussions using

"Google Classroom". For facilitating to join the training, the participants have to register themselves in the "Google Classroom" using their "Gmail Account ". The Registered participants will be given the Class Code by this Institute, on entering which they will be accessed to the training modules. Participants will be required to complete an online Assessment/assignment through Multiple Choice Questions (MCQ) and specific GIS task based on the topics covered in the program.

## PROGRAMME FEE)

There is **no program fee.**

## TARGET GROUP

The DL program is intended to benefit the Irrigation and Water Resources Engineers 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.**

## PARTICIPATION

The nomination of the officers fitting the target profile may be sent to the Programme Coordinator latest by **11.12.2020** by email or through Google Form link <https://forms.gle/9RcaYNxyCygV6pzh7>. The accepted nominations would be posted on our web site (<http://nwa.mah.nic.in>) under the link "Upcoming Events, by**11.12.2020** /by email/through Google form. Without confirmed acceptance from NWA website, the participants should not join the course. The accepted participants will be provided with the login ID 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 with regard to this Programme, please contact:

### Pradeep Kumar

Director & Course Coordinator  
National Water Academy, CWC,  
Khadakwasla, Sinhagad Road,  
Pune – 411 024

Tel: 020 - 24380476, Fax: 020-24380110

e-mail: [kumprad1979@gmail.com](mailto:kumprad1979@gmail.com)/[nwa.mah@nic.in](mailto:nwa.mah@nic.in)

website: <http://nwa.mah.nic.in>