

**NATIONAL WATER ACADEMY, PUNE**

**Training Program on  
"PYTHON PROGRAMMING & JAVA SCRIPT"  
(16<sup>th</sup> March 2020 – 03<sup>rd</sup> April 2020)**

**REGISTRATION FORM**

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

Designation: \_\_\_\_\_

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

Responsibilities (in brief): \_\_\_\_\_

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

Telephone Nos(with STD Code) : \_\_\_\_\_

Fax No(with STD Code): \_\_\_\_\_

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

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

**Date** (Signature of the participant)

**SPONSORING AUTHORITY**

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

Telephone Nos:  
(with STD Code) \_\_\_\_\_

Fax No.(with STD Code): \_\_\_\_\_

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

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

**Date** (Signature and Seal)

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



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



**Training Program On**

**"PYTHON PROGRAMMING & JAVA SCRIPT"  
(16<sup>th</sup> March 2020 – 03<sup>rd</sup> April 2020)**



**Organised by  
NATIONAL WATER ACADEMY**

**at  
NWA Complex  
Khadakwasla, Sinhagad Road,  
Pune – 411 024**

## INTRODUCTION, BACKGROUND AND OBJECTIVE

Python is an open source general purpose programming language that has a strong presence in the GIS industry. It is currently gaining a lot of visibility as the primary scripting language for ArcGIS. In water sector the application of various types of remote sensing data & field survey data, water accounting etc are being carried out by GIS software which is based on Python & Java language. Java Script programming is another tool which is useful for having introduction of GEE cloud platform. The problem occurring while learning remote sensing image processing is the high cost software & availability of image data. Having GEE tool can be used for accessing, downloading, processing, analyzing & visualizing the data over a long period of time at free of cost.

The training programme would expose the participants to create awareness regarding the use of the technology but also to enhance the skills and attitudes of officers towards software and IT in general a long term basis.

## PROGRAM CONTENTS

- Introduction to Python
- Data Types, Variables, Operators, Input/Output
- Nested Loops, Control Structure
- Pass, Strings and Tuples
- Dictionaries, Working with Lists
- Functions & Methods, Global and local variables
- Object Oriented Python
- OOPs concept
- Class and object, Attributes, Inheritance
- Overloading & Overriding, Python Libraries
- Working with Pandas, Working with Numpy Scipy
- Introduction to Gdal
- Working with matplotlib seaborn
- Fundamentals of Javascript Language
- JavaScript Variables and Data Types
- Conditional Examples (if else-switch case) in Java Script
- Conditions In Java Script
- Looping & Functions in Java Script
- Error Handling in Java Script
- XML processing

## PROGRAM FEE

There is no program fee for participants from **Central and State Govt. departments.**

## DURATION

**16<sup>th</sup> March 2020 – 03<sup>rd</sup> April 2020 (3 Week)**

The participants are expected to reach NWA by the evening of 15<sup>th</sup> March, 2020 and should plan to leave after 1700 Hrs. on 03<sup>rd</sup> April, 2020.

## VENUE

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

## TARGET GROUP

Graduate Engineers, (BE/B.Tech) with minimum two years of work experience in the field of water resources, of the levels of Dy. Director/ Assistant Directors /EE/ AEE/ AE from Central/State Govt organizations, with working knowledge of computers who are associated with the implementation of **National Hydrology Project** at the headquarters or Field level.

## PARTICIPATION

The nomination of the officers fitting the target profile may be sent to the Programme Coordinator latest by **02.03.2020**. The accepted nominations would be posted on our web site (<http://nwa.mah.nic.in>) under the link *“Upcoming Events*, by **02.03.2020**. **Without confirmed acceptance** from NWA website, the participants should not join the course.

## LOCAL HOSPITALITY

NWA has a self-contained residential campus, and all out-station participants would be provided with accommodation in the NWA Hostel. **Lodging and boarding charges will be borne by the participants.**

-Airport/Railway station pickup/drop will have to be arranged by the participants. The participants may avail the services of prepaid taxi/auto.

## WEATHER

During the month of March normally the weather is quite pleasant and the average temperature of Pune may be around 32°C to 36°C.

## 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/nwa.mah@nic.in](mailto:kumprad1979@gmail.com/nwa.mah@nic.in)

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