संख्या:A-33025/25/20/2021/NWA/**86**   दिनांक: 15.01.2021

प्रति,
 As Per List

विषय : राष्ट्रीय जल अकादमी , केन्द्रीय जल आयोग , पुणे में **"*Training Program through distance learning on Google Earth Engine and Its Application in Water Sector*"** विषय पर **15th - 19thFebruary 2021** के दौरान प्रशिक्षण कार्यक्रम का आयोजन–**नामांकन के संदर्भ में**

महोदय / महोदया,

राष्ट्रीय जल अकादमी में **"*Training Program through distance learning on Google Earth Engine and Its Application in Water Sector*"** विषय पर **15th - 19thFebruary 2021** के दौरान प्रशिक्षण कार्यक्रम का आयोजन किया जा रहा है | इस कार्यक्रम संबंधी विस्तृत ब्योरा कार्यक्रम विवरणिका *(Program Brochure)* सलंग्न है |

अनुरोध है कि कार्यक्रम विवरणिका में दिए गए स्तर के अधिकारियों को इस कार्यक्रम से लाभ उठाने हेतु यथाशीघ्र नामित करने का कष्ट करें | इस प्रशिक्षण कार्यक्रम में भाग लेने हेतु कोई भी प्रोग्राम शुल्क नहीं हैं|

भवदीय,

प्रदीप कुमार
निदेशक एवं कार्यक्रम संयोजक

संख्या:A-33025/25/20/2021/NWA/ दिनांक: 15.01.2021

To,

Sub: Training Program through distance learning on **"Google Earth Engine & Its Application in Water Sector"** by National Water Academy, Pune during **15th- 19thFebruary 2021**- Call of nominations-reg.

Sir/Madam,

The National Water Academy, Pune is organizing 5 days training program through distance learning on "**Google Earth Engine & Its Application in Water Sector"** during **15th - 19th February2021.** This training would enable the training participants to the potential of the Google Earth Engine platform through some specific examples showcasing its utility for water resources.

Name of the Module	Duration	Last date of receipt of nomination	Acceptance of nomination	Participant's Profile
Training Program through distance learning on Google Earth Engine & Its Application in Water Sector	**15th - 19th February 2021**	12th February 2021	12th February 2021	Graduate Engineers, (BE/B.Tech) with basic knowledge of computerswith minimum two years of work experience in the field of water resources, of the levels of Dy. Director/Executive Engineer/Assistant Directors/ Assistance Engineers/JEsfrom Central/State Govt. organizations, regional offices.

There is **no programme fee** for participants.

Yours faithfully,

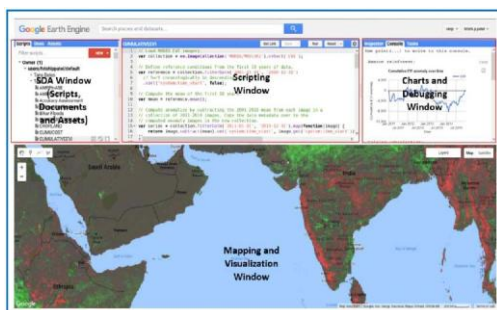**Pradeep Kumar**
Director & Program Coordinator

TRAINING PROGRAM THROUGH DISTANCE LEARNING ON

"Google Earth Engine and Its Application in Water Sector"

15–19 February 2021

Organizedby
NATIONAL WATER ACADEMY,PUNE

INTRODUCTION

Google Earth Engine (GEE) is a cloud-based platform for planetary scale analysis and utilization of Remote Sensing Datasets and translating these data into meaningful analytics and decisions. It combines a multi-petabyte catalog of satellite imagery and other geospatial datasets to detect changes, map trends and quantify differences on the Earth's surface. The beauty of it lies in the fact that the platform is free and there are no additional software licenses or hardware that is required for the same to be leveraged. This also makes remote sensing satellite data analytics accessible to a much wider audience as all you need to get started is a browser with an internet connection. GEE leverages Google's extensive cloud infrastructure to present several varied applications.

Given that a vast number of satellite data sets are made available on GEE, there are a plethora of applications from the perspective of Water Resources and Natural Resource Management. For example, this platform can be utilized to map surface water trends using the Landsat archive, do flood detection using Sentinel 1 radar data and SRTM terrain information or understand seasonal land cover dynamics such as wetlands. Other applications have included mapping global deforestation for past 20 years, understanding water dynamics in lakes and reservoirs over last 30-35 years and other complex applications such as understanding cropland dynamics.

The goal of this training program is to introduce the training participants to the potential of the Google Earth Engine platform through some specific examples showcasing its utility for water resources.

PROGRAM CONTENTS

The program will comprise of online classroom video sessions and will cover the following topics:

- ☐ Brief Introduction to Java Script Language
- ☐ Brief Introduction to Remote Sensing
- ☐ Google Earth Engine Overview & Applications
- ☐ Interacting with Google Earth Engine using Java Script
- ☐ Showcasing results/ output of analytics
- ☐ Water Bodies extraction using GEE
- ☐ Catchment /Watersheds delineation using GEE

PROGRAM FORMAT

Program contains online lecture modules (series of voice PPTs, Videos of practical hands-on 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.

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**.

PROGRAM FEE

There is no program fee.

PARTICIPATION

The nomination of the officers fitting the target profile may be sent to the Program Coordinator latest by 12.02.2021 by email or through Google Form link https://forms.gle/dLcuVnWGeFizjBibA. The accepted nominations would be posted on our web site (http://nwa.mah.nic.in) under the link "Upcoming Events, by12.02.2021 /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 regarding this Program, 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
website: *http://nwa.mah.nic.in*

Registration

Please click the link and fill the online Google form

https://forms.gle/dLcuVnWGeFizjBibA