

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन, नदी विकास एवं
गंगा संरक्षण विभाग
केंद्रीय जल आयोग
राष्ट्रीय जल अकादमी



Government of India
Ministry of Jal Shakti
Dept of Water Resources,
River Development & GR
Central Water Commission
National Water Academy



वसुधैव कुटुम्बकम्
ONE EARTH • ONE FAMILY • ONE FUTURE

संख्या: A-33025/06-CFFM/2023-24/NWA/ 1067-1105

दिनांक : 13/02/2023

प्रति

- 1 The Chairman, CWMA, New Delhi
- 2 Member (RM), CWC, New Delhi
- 3-7 The Chairman, GFCC, Patna/Chairman, KRMB/Chairman, GRMB Hyderabad/ Chairman, BB, Guwahati/
Chairman TB, Hyderabad
- 8-21 All the Chief Engineers, CWC (HQ), New Delhi
- 22-35 The CE, BBO, Guwahati/ CE, BOBO, Shillong/ CE, CSRO, Coimbatore/ CE, IBO, Chandigarh/ CE, KGBO,
Hyderabad/ CE, LGBO, Patna/ CE, MERO, Bhubaneswar/ CE, Mon (C), Nagpur/ CE, Mon (S), Bangalore/
CE, MTBO, Gandhinagar/ CE, T&BDBO, Kolkata/ CE, UGBO, Lucknow/ CE, YBO, New Delhi/ CE, NBO, Bhopal

विषय: राष्ट्रीय जल अकादमी, केन्द्रीय जल आयोग, पुणे द्वारा 03-17 अप्रैल 2023 के दौरान "पारंपरिक बाढ़ पूर्वानुमान पद्धति (Conventional Flood Forecasting Method)" पर आयोजित दूरस्थ शिक्षा के माध्यम से प्रशिक्षण कार्यक्रम - नामांकन के लिए अनुरोध।

महोदय/ महोदया,

राष्ट्रीय जल अकादमी, केन्द्रीय जल आयोग, पुणे द्वारा 03-17 अप्रैल 2023 के दौरान "पारंपरिक बाढ़ पूर्वानुमान पद्धति (Conventional Flood Forecasting Method)" पर दूरस्थ शिक्षा के माध्यम से प्रशिक्षण कार्यक्रम का आयोजन किया जा रहा है। इस कार्यक्रम संबंधी प्रमुख बिन्दुएँ पृष्ठांकित (overleaf) हैं। अनुरोध है कि आपके संगठन में उक्त विषय से संबंधित कार्य करने वाले अधिकारियों को इस प्रशिक्षण कार्यक्रम से लाभ उठाने हेतु यथाशीघ्र नामांकित करने का कष्ट करें।

इच्छुक नामांकित अधिकारी 25 March 2023 तक नीचे दिए गए Google फॉर्म लिंक या QR स्कैन कोड पर क्लिक करके उक्त प्रशिक्षण कार्यक्रम के लिए पंजीकरण और कार्यक्रम में शामिल होने के लिए अपने विवरण प्रस्तुत कर सकते हैं।

<https://forms.gle/8w75THM6nPqPK9Y6>



संलग्न: यथोपरि

सादर,
मिलिंद पानपाटील

निदेशक (प्रशासन एवं समन्वयक)
एवं कार्यक्रम निदेशक

प्रतिलिपी:

1. PPS to Chairman, CWC, New Delhi

प्रतिलिपी संलग्नक सहित जानकारी और आवश्यक कार्रवाई हेतु :

2. The Director (Trg), CWC, New Delhi – with a request for wide circulation
3. The Director (FFM), CWC, New Delhi

CENTRE OF EXCELLENCE IN WATER SECTOR

खडकवासला, पुणे -सिंहगढ़रोड, पुणे -411 024
टेलीफोन: 020-23381212 /#9873163630
फैक्स: 020-24380110/24380224
EAPBX No. 24380392, 24381517 Extn: 118/112
ई-मेल: nwa.mah@nic.in, cenwa.mah@nic.in
shailendrapandenwa@gmail.com



Khadakwasla, Pune –Sinhgad Road, Pune-411 024
TEL : 020-24381212/#9873163630
FAX : 020-24380110/24380224
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♦Conserve Water- Save Life ♦

♦जल संरक्षणसुरक्षित भविष्य♦



Name of the Program	Conventional Flood Forecasting Method
Mode of Delivery	Distance Learning
Brief Content	<p>The program will comprise of on-line sessions, discussions, assessment/assignment through hands-on session in a project mode. Following topics will be covered:</p> <ul style="list-style-type: none"> ❖ Introduction to Flood Forecasting & Warning ❖ Flood Forecasting by Statistical Methods ❖ Preparation of Travel Time (TT) and Stage Discharge (SD) Curve and its use in FF ❖ Preparation of gauge to gauge correlation and co-axial Correlation curves and its use in FF ❖ Unit Hydrograph Preparation and its use in FF ❖ API (Antecedent Precipitation Index) calculation and Preparation of rainfall curve with API as parameter and its use in FF ❖ Methods of run-off assessment from Ungauged Catchments on the basis of rainfall data ❖ Various data sets freely available that can be used in Flood Forecasting ❖ Formulation of Inflow Forecast ❖ Each day session will be followed by Assessment /Assignment through Hands-on Session in a Project Mode.
Program Duration	The Program will commence from 03 April and will conclude on 17 April 2023 . Two sessions (FN & AN 90 minutes each) will be held every day as per the schedule.
Participants' Profile	The program is open only for the officials of Central Water Commission and Organisations under DOWR, RD & GR. Officers of the rank of JE/AE/AEE/EE and officials and staff of Hydromet Cadre involved in the flood forecasting activities.
Last date for receipt of nomination	27 th March 2023 @ 1000 Hrs.
Confirmation of nomination	Confirmed nominations will be uploaded on our website (http://nwa.mah.nic.in) under the "Upcoming Events" link on 28 th March 2023 @ 1800 Hrs.
Program Format & Mode of Delivery	<p>Program will be hosted on MOODLE LMS of National Water Academy (NWA), Pune i.e. https://www.nwapune.gov.in. The NWA will register the participants in the e-learning site of NWA and will email the username and password for joining the course. WhatsApp Group will also be created to facilitate smooth interaction for facilitating the course. All the course related queries and discussion will be addressed through course website only using the Course Forum/ Discussion Forum.</p> <p>All the lectures and discussions shall be held on-line through Digital Learning Mode using CISCO WebEx Meeting Platform. e-Certificate will be provided to the successful participants. The Registration Link for participation in the sessions will be shared with all officials through email well before the commencement of the session. Participants can easily join using their Computer/ Smart Phone</p>
Program Director	<p>Shri Milind Panpatil Director (Administration & Coordination) & Program Director National Water Academy, CWC, Khadakwasla R S Pune – 411 024 Tel : 020 – 24380528; Mob :9763031746 / 8767305098 Email : nwa.mah@nic.in; nwa.pune@gmail.com; milind_panpatil@yahoo.com</p>

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♣Conserve Water- Save Life ♣



Government Of India
Ministry of Jal Shakti
Department of Water Resources,
River Development & Ganga Rejuvenation
Central Water Commission
National Water Academy, Pune



TRAINING PROGRAMME THROUGH DISTANCE LEARNING on
“Conventional Flood Forecasting Method”
(03-17 April 2023)



Introduction and Objective

Floods are the most extensive of all natural disasters. The geo-climatic conditions of India make the country prone to floods. India receives an average annual rainfall of 3880 BCM. About 75% of this is received just in four months of monsoon. Consequently, in most of the rivers almost 75-80% of annual run-off also occur in these four months. Impact of floods are huge in terms of social, loss of human life, damage to crops, livestock, property, public utilities, deteriorating water quality etc. resulting in huge economic losses. Though it is not possible to control the flood disaster totally, by adopting suitable structural and non-structural measures damages can be minimized. Flood Forecasting is an effective non-structural tool by giving advance warning of the magnitude of flood and its time of occurrence; and thus let concerned authorities to regulate release through a dam in manner not harmful to structure itself and lives and properties both upstream and downstream areas; and to administrative officials to set-off a slew of measures needed for alleviating damages on account of flooding etc. Availability of latest,

reliable, accurate and timely information is a pre-requisite for planning flood management activities. CWC has established nation-wide forecasting and warning system in all the inter-State river basins

Water Resources engineers have been continually endeavouring to forecast future events as accurate and early as possible by adopting newer techniques. CWC has ventured into Flood Forecasting (FF) using MIKE Models, all the field officers are issuing flood forecast on real time basis using Conventional Flood Forecasting methods also. Conventional flood forecasting is done with the help of various types of correlation curves, unit hydrographs etc. Various correlation curves developed in the past needs updation. Also, the correlation curves for new FF stations needs to be prepared.

Thus, the program has been conceptualized with an objective to building capacities of the professionals involved in the flood management activities to enhance their knowledge and skills on Flood Forecasting Techniques, Modelling and effective management of floods in accordance with the guidelines and latest techniques.

Program Coverage

The program will comprise of on-line sessions, discussions, assessment/assignment through hands-on session in a project mode. Following topics will be covered:

- ❖ Introduction to Flood Forecasting & Warning
- ❖ Flood Forecasting by Statistical Methods
- ❖ Preparation of Travel Time (TT) and Stage Discharge (SD) Curve and its use in FF
- ❖ Preparation of gauge to gauge correlation and Co-axial Correlation curves and its use in FF
- ❖ Unit Hydrograph Preparation and its use in FF
- ❖ API (Antecedent Precipitation Index) calculation and Preparation of rainfall curve with API as parameter and its use in FF
- ❖ Methods of run-off assessment from Ungauged Catchments on the basis of rainfall data
- ❖ Various data sets freely available that can be used in Flood Forecasting
- ❖ Formulation of Inflow Forecast
- ❖ **Each day session will be followed by Assessment /Assignment through Hands-on Session in a Project Mode.**

Program Duration

The detailed schedule along with identified speaker is attached with the brochure. The Program will commence from 03 April and will conclude on 17 April 2023. Two sessions (FN & AN-90 minutes each) will be held every day as per the schedule.

Program Format & Mode of Delivery

Program will be hosted on MOODLE LMS of National Water Academy (NWA), Pune i.e. <https://www.nwapune.gov.in>. The NWA, Pune will register the participants in the e-learning site of NWA and will email the username and password for joining the course. WhatsApp Group will also be created to facilitate smooth interaction for facilitating the course. All the course related queries and discussion will be addressed through course website only using the Course Forum/ Discussion Forum.

All the lectures and discussions shall be held on-line through Digital Learning Mode using CISCO WebEx Meeting Platform. e-Certificate will be provided to the successful participants. The Registration Link for participation in the sessions will be shared with all officials through email well before the commencement of the session. Participants can easily join using their Computer/ Smart Phone.

Target Group

The program is open only for the officials of Central Water Commission and Organisations under DoWR, RD & GR. Officers of the rank of JE/AE/AEE/EE and officials and staff Hydromet Cadre involved in the flood forecasting activities.

Participation

The nomination of the officers may be sent to the Program Coordinator latest by 27th March 2023 @ 1000 Hrs. through the Google Form link give below:

<https://forms.gle/8w75THM6nPqPKgY6>



Confirmation of Nominations

The selected participants will be enrolled in e-learning website of NWA and will be provided with username and password 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. The confirmed nominations will be uploaded in NWA website under upcoming event link on 28 March 2023 @ 1800 Hrs.**

Contact

For sending nominations or for any information of this program, please contact :

Milind Panpatil
Director (Administration & Coordination)
& Program Director
National Water Academy, CWC, Khadakwasla R S
Pune – 411 024
Tel : 020 – 24380528; Mob : 9763031746 / 8767305098
Email: nwa.mah@nic.in; nwa.pune@gmail.com;
milind_panpatil@yahoo.com