I/179004/2024

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन नदी विकास एवं गंगा संरक्षण विभाग
केंद्रीय जल आयोग
सॉफ्टवेयर प्रबंधन निदेशालय

Government of India
Ministry of Jal Shakti
Dept. of Water Resources, RD&GR
Central Water Commission
Software Management Directorate

CIRCULAR

Sub: - Organizing of Internal Hackathon in CWC and inviting nominations from interested officers.

As directed by Chairman, CWC, it has been planned to conduct an Internal Hackathon-2024 in CWC. The purpose of the Internal Hackathon is to identify some important and critical problem statements/challenges pertaining to water sector related matters and relevant to CWC and invite the officers of CWC to participate and take up the problem and come up with a solution by leveraging the power of Hydro-Informatics/IT/ AI/ML tools in their existing conventional engineering approach. The officer(s) may participate in the Hackathon either individually or by forming a team of fellow CWC officers (maximum 06 members)

An indicative list of few problem statements pertaining to water domain and relevant to CWC **is enclosed** as **annexure** with this circular. The participating officers may either choose a particular problem statement from the enclosed list of problem statements or may identify/frame their own problem statement which is relevant to water domain and CWC.

In view of the above, names of CWC officers interested to participate in the CWC Internal Hackathon 2024 are invited. The name (Individual/Group) along with problem statement may be sent to SM Directorate through email (smdte-cwc@nic.in) before 5th August 2024.

The Internal Hackathon will be held on 12th and 13th August 2024. Demonstration by the winning team will be done on 14th August 2024.

This issues with the approval of Chairman, CWC

Encls: Annexure-I

(Amitabh Tiwari)
Deputy Director

To,
1. All Chief Engineers of CWC.
2. All Directors / Superintending Engineers (C) of CWC (With a request to circulate among all the officers of their Wing/Organization.

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♦जल संरक्षण-सुरक्षित भविष्य♦

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E-mail: smdte@nic.in
♦Conserve Water- Save Life♦

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Copy for kind information to:

1. PPS to Chairman CWC, Sewa Bhawan, New Delhi.

2. PPS to Member RM, CWC, Sewa Bhawan, New Delhi.

3. PPS to Member WP&P, CWC, Sewa Bhawan, New Delhi.

4. PPS to Member D&R, CWC, Sewa Bhawan, New Delhi.

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Annexure-I

Indicative list of Problem Statements for CWC Internal Hackathon-2024

Sl No.	Problem Statement (PS)
1.	Projection of the extent of inundation corresponding to the forecasts of flood levels in a river.
2.	Assessing depth of water in Rivers and reservoirs using satellite images
3.	Automating the satellite-imagery based assessment of the sedimentation in a reservoir using Google Earth Engine/any other software
4.	Drought Information and management portal: With the available information and forecast by agencies on rainfall, soil moisture, surface and groundwater levels, colour coded areas may be generated using google maps for display of drought vulnerability for the whole country at district/sub-district level. It may also be designed as easily accessible stand-alone App which can generate location specific notifications to the common user.
5.	Water Availability based crop specific farming advisory
6.	Two-way mobile communication (G2C and C2G) for dissemination of flood forecasts to end users and collection of real time data of inundation area through crowd sourcing
7.	Embankment Mapping and Crowdsourced Health Card for Preventive Structural Measures
8.	Water Accounting in Irrigation Commands through Crowd Sourced Crop Mapping
9.	Data of waste water from water retaining structure
10.	Collection of real time data of Inundation areas
11.	Dissemination of information related to release of water from dams
12.	Collection on information on Har khet ko pani
13.	Information on river bank erosion /health of embankments
14.	Collection of data in respect of dams in distress conditions
15.	Dissemination of information related to availability of water in reservoir
16.	Application for reporting encroachment, pollution or requirement of RRR for water bodies

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