

National Workshop Program

24-03-2021 (Wednesday)

09.00 - 09.30	Registration of Delegates
09.30 - 11.00	Inaugural Session
11.00 - 11.15	High Tea
11.15 - 12.00	Key Note Address
12.00 - 13.00	Invited Talks
13.00 - 14.00	Lunch
14.00 - 15.00	Invited Talks
15.00 - 16.00	Interactive session
16.00 - 17.00	Panel discussion
17.00 - 17.15	Tea
17.15 - 18.15	Knowledge flow Session Sr. to Jr. Scientists of GWD
18.15 - 19.15	Experience Sharing Session Veterans to Youngsters of GWD
19.15 - 20.00	Cultural Program & Valedictory
20.00	Dinner
12.00 - 18.00	Poster presentations

Registration

- ◆ All the participants are requested to register online in NHP portal (<http://nhp.mowr.gov.in>) & google form (<https://forms.gle/TWXUpE8Kcssj4NAy6>) on or before 10-03-2021
- ◆ There is no registration fee
- ◆ Selected outstation participants will be provided local hospitality

Technical Committee

Dr. Rajaram Purohith, Deputy Director, NPMU, NHP
Sri K.A. Srinivasa Reddy, CE (FAC), ISWR, AP WRD
Dr. P.V. Raju, Sr. Scientist, Water Resources, NRSC, Hyderabad
Sri John Satyaraju, Joint Director, CADA, AP WRD
Sri K.S. Sastry, Deputy Director, AP GW
Sri N. Srinivasu, Deputy Director, AP GW
Dr. S.V. Vijaya Kumar, Scientist, DRC, NIH, Kakinada
Dr. A.V.S.S. Anand, Scientist, CGWB, Raipur
Dr. G. Ravi Kumar, Scientist, CGWB, Hyderabad
Dr. Ch. Srinivas Rao, Head Civil Engineering Dept.
Siddhartha Engineering College, Vijayawada
Dr. K.V. Sambasiva Rao
Dean, NRI Institute of Technology, Agiripalli, Krishna Dist.

National Workshop Advisory Committee

Sri C. Narayana Reddy, ENC (Irrgn), AP WRD
Sri K. Jalandhar, ENC (Admin), AP WRD
Sri A.Vara Prasada Rao, Director, AP GW&WAD
Sri TVNAR Kumar, CE, Hydrology, AP WRD
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Prof. K.S.R. Prasad, Dept. of Civil Engineering,
VR Siddhartha Engineering College, Vijayawada

GOVERNMENT OF ANDHRA PRADESH
GROUND WATER AND WATER AUDIT DEPARTMENT
NATIONAL HYDROLOGY PROJECT



GOLDEN JUBILEE YEAR OF GW&WAD



National Workshop
on
**Ground Water Systems:
Challenges & Opportunities**
(Under National Hydrology Project)

Date
24th March, 2021

Venue
Tummalapalli Kshetraiah Kalakshetram
Vijayawada

About the Department

The Ground Water and Water Audit Department was established in March 1971 as Andhra Pradesh Ground Water Department. The Department is a multidisciplinary organization engaged mainly in investigation, estimation and monitoring of groundwater resources. The activities include hydro geological, hydrological, geophysical and quality aspects.

The department is a part of Andhra Pradesh Water Resources Department and headed by Director with 13 district offices headed by Deputy Directors and with 5 Water Quality Level II Labs in the state. The department has completed 50 years of journey and celebrating Golden Jubilee Year and contributed a lot to the science and society. In this 50 years of journey, the Department is implementing National Hydrology Project from 25 years as a high performing state. The NHP has brought the paradigm shift in the activities of the department. In commemoration of this journey, the Department is organizing a National Workshop on "Ground Water Systems: Challenges & Opportunities.

Prelude

The exponential growth in infrastructure development, industry, agriculture & food production, urbanization and recreation have led to an unprecedented demand for water resources. Further the climate change, supplemented by unwarranted anthropogenic activities and extreme natural hazards have imposed not only a shift in monsoon cycle, but also a frequent failure leading to an uneven distribution of rainfall in time and space. Further, many popular and professional programs, initiated and implemented by local and central governments have been playing a recognisable role in accelerating the increasing uncertainty in the availability and dynamic behaviour of water resources. India, being an agrarian nation, invests 80 to 85 % of its available water resources in agriculture sector. The green revolution witnessed by India in the last four decades have bestowed us with food security associated with a multi-fold increase in water consumption and application of fertilisers and pesticides. Thus the

monsoon failure, complimented by changing climate, reduced surface water resources, technological advances facilitating the extraction of water from unthoughtful depths etc. have resulted in a paradigm shift in the use of ground water for irrigation. The use of groundwater for irrigation has risen from a mere 9% to 47 % in the last four decades. This resulted in mounting unprecedented stress on ground water resources leading to its extraction far beyond replenishable levels coercing the precious resource suffers from quantity, quality and sustenance perceptions.

THE WORKSHOP

The Andhra Pradesh Groundwater Department is contributing to the science and society for the last 50 years. In this glorious 50 years of journey, the Hydrology Project and National Hydrology Project has contributed about 25 years i.e half of the journey we made with Hydrology Project. The 1st Piezometer was constructed in India in Andhra Pradesh in the year 1996, i.e 25 years ago. The Hydrology Project has brought the paradigm shift in monitoring and management of groundwater resources in the state.

Apart from a series of measures taken up by the government and professional departments for conservation and optimum use of the resource through various measures like rainwater harvesting, optimum pumping etc. systematic monitoring and assessment approaches have been introduced since the implementation of the Hydrology Project (HP) and National Hydrology Project (NHP) in India.

Despite all such measures in place for effective management and sustenance of the resources, the ground water resources in the country are dwindling beyond predictions. In the background of these challenges and to commemorate the contribution of the department to science and society in the last 50 years of AP GWD journey, particularly 25 years of journey with HP and NHP, it is proposed to organise a workshop to deliberate on the status and dynamic behaviour of different components of groundwater system to assimilate the challenges and design the best possible way forward.

TOPICS FOR DELIBERATION

- ◆ Atmospheric contribution to surface and groundwater systems
- ◆ Surface - Groundwater interactions
- ◆ Role of unsaturated zone in Surface and Groundwater systems
- ◆ Groundwater dynamics in space and time: Models to understand the natural, geogenic and anthropogenic influences on depleting resources
- ◆ Management strategies for Regulating Groundwater exploitation-Need of the hour
- ◆ Conservation and management of water resources with reference to climate change
- ◆ Role of Water Audit in Water Resources Management
- ◆ Big data, IoT, ML and AI towards synergic management of water resources.

Participation

Apart from the Key Note address, Invited Expert talks, the participatory members of NHP family from various state departments of groundwater, national organizations, scientists and young professionals working on ground water and integrated systems are welcome to participate.

Paper Contribution

The participants are requested to submit a summary of NHP activities / good practices in their state / organization high lighting their accomplishments in not more than two A4 size pages including figures and tables on or before 10th March, 2021.

Besides, the participants are also requested to submit a poster measuring 1 x 1 M for display at the workshop. (participants need to share good resolution poster in soft copy in advance to get it printed in Vijayawada)

All correspondence will be made through the following email id :
apgw2021nationalworkshop@gmail.com

For further details, please visit NHP website :
<http://nhp.mowr.gov.in/>