

भारत सरकार Government of India केन्द्रीय जल आयोग CENTRAL WATER COMMISSION प्रशिक्षण निदेशालय Training Directorate

No.4/ 26 /2017-Trg/ 241-7441

Dt 06.11.2017

विषय: 7<sup>th</sup> International Groundwater Conference on(IGWC-2017 on "Groundwater Vision 2030: Water Security, Challenges and Climate Change Adaption" to be held from 11-13 December, 2017 at ICAR-NASC Complex Pusa, New Delhi-reg.

Please find enclosed herewith a copy of the letter/ brochure on the above subject. It is requested that suitable nominations if any, may be forwarded to this office with the approval of the Concerned Member/ Chief Engineer (HRM) in respect of HRM Unit/ CE,NWA, in respect of NWA,CWC, Pune positively by **20.11.2017**. A copy of the Bio data of the nominated officers may also be enclosed along with the nominations indicating the number of events so far attended by them.

It is for information that nominations received after the stipulated date will not be considered and also nominations once approved by Chairman, CWC, will not be allowed to be withdrawn.

**मंलग्नक**ध्यथोक्त

(रमेश कुमार)

- 1. PPS to Chairman, CWC, New Delhi.
- 2. PPS to Member WP&P/ D&R/RM/, CWC, New Delhi.
- 3. All Chief Engineers, Central Water Commission.
- 4. Director, WP&PC/D&RC, RMCD, CWC, New Delhi.
- 5. Secretary/ Director (TC), CWC, New Delhi.
- 6. All Directors/ Superintending Engineers, Central Water Commission.
- 7. J.E. (Trg), CWC, New Delhi to upload this circular on CWC website www.cwc.nic.in/intranet portal.

## **IGWC 2017**



7th

# INTERNATIONAL GROUNDWATER CONFERENCE on

### **Groundwater Vision 2030**

Water Security, Challenges and Climate Change Adaptation

December 11-13, 2017, New Delhi

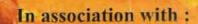
Under the aegis of

National Hydrology Project (NHP)



Ministry of Water Resources, River Development and Ganga Rejuvenation

Organized by





National Institute of Hydrology, Roorkee, India



Association of Global Groundwater Scientists



Central Ground Water Board, India TEXAS A&M

Texas A&M University, USA

#### THE IGWC SERIES

The international conferences in IGWC series are the meeting point for groundwater professionals and researchers, bringing together experts in the various inter-related disciplines in the field of groundwater hydrology. Groundwater has emerged as a major resource in safeguarding agriculture and drinking water security in many parts of the globe. India is at present the largest and fastest consumer of groundwater in the world. The role of groundwater in contributing to water security and searching solutions for its conservation and sustainable management at present will play a crucial role to meet water demands of the population in future against the backdrop of climate change and to ensure food and water security for both the developed and developing countries. The aim of IGWC 2017 is to provide a common platform for researchers, academicians, water managers, industrialists and technocrats to discuss and present their vision for groundwater management in the face of growing challenges of the needs of rising earth population and anticipated impacts of climate change.

#### NATIONAL INSTITUTE OF HYDROLOGY (NIH), ROORKEE

National Institute of Hydrology (NIH) is a premier research and development organization in the area of hydrology and water resources in India. The Institute was established in 1978, as an autonomous society under the Ministry of Water Resources, River Development & Ganga Rejuvenation, Government of India, with its headquarters at Roorkee. The Institute undertakes, aides, promotes and coordinates systematic and scientific work in all aspects of hydrology. Six Regional Centres of the Institute are located in different physiographic regions of the country.

The scientific and technical credibility of the Institute in conducting hydrological and water resources research is well recognized both at the national and international tevel. The Institute along with the joint organizers is planning an exciting three-day event that will enable delegates to examine the multi-dimensional challenges facing us in the coming years in terms of sustaining our groundwater resources, enabling a water secure future and adapting to climate change.

#### CENTRAL GROUND WATER BOARD

Central Ground Water Board (CGWB), a subordinate office of the Ministry of Water Resources, Government of India, is the National Apex Agency entrusted with the responsibilities of providing scientific inputs for management, exploration, monitoring, assessment, augmentation and regulation of ground water resources of the country. CGWB was established in 1970. Major activities being taken up by the Board include macro/micro-level ground water management studies, exploratory drilling program, monitoring of ground water levels and water quality through a network of ground water observation wells, and periodic assessment of replenishable ground water resources of the country etc. The Board also takes up special studies on various aspects of ground water sector such as ground water depletion, sea water ingress, ground water contamination, conjunctive use of surface & ground water, etc.

#### TEXAS A&M UNIVERSITY

Texas A&M University, USA was established in 1876 as an institution of higher education. Since then, Texas A&M has flourished to become one of the premier research universities in USA. Texas A&M University is dedicated to the discovery, development, communication, and application of knowledge in a wide range of academic and professional fields. Its mission of providing the highest quality undergraduate and graduate programs is inseparable from its mission of developing new understandings through research and creativity. It welcomes and seeks to serve persons of all racial, ethnic and geographic groups as it addresses the needs of an increasingly diverse population and a global economy.

#### ASSOCIATION OF GLOBAL GROUNDWATER SCIENTISTS (AGGS)

AGGS with its registered office in Coimbatore, Tamil Nadu, India, is committed to work on the promotion of research for minimizing groundwater pollution and to advocate the effective use of groundwater for better health and sustainable livelihood through undertaking appropriate measures. AGGS organizes seminars/symposia at various centres in India and in the neighbouring countries viz. Bangladesh, Sri Lanka, Pakistan, Nepal and Bhutan and publishes proceedings and new findings. It also plays a partner role along with other International Associations viz., IAHS & IAH in organising international events in other developing countries as well as SAARC countries.

#### SCIENTIFIC THEMES

#### T-1: VISION 2030 - PREPARING FOR A WATER SECURE FUTURE

#### T-2: VISION 2030 - FACING UPTO CLIMATE CHANGE

#### T-3:VISION 2030-WATER RESOURCES IN ARID & SEMI-ARID REGIONS

- Integrated water resources management
- Groundwater use efficiency: urban utilization and irrigation methods – innovations
- Groundwater-energy nexus and future challenges
- Water resource management: role of industrial /financial sector
- Smart cities water management
- · Water reuse technology
- Community participation and safe water supplies

- Climate change and groundwater resources
- Climate change adaptation and management techniques
- Coastal groundwater management practices and ecosystem services
- Groundwater resources
  Himalayan ecosystem
- Soil science, groundwater resources and food security
- Decision support system and water management

- Potential climate change impacts on extreme weather events in arid & semi-arid regions
- · Arid and semi-arid zone hydrology
- Innovation in development of water resources in drought prone areas with scarce water resources
- International and regional cooperation for drought mitigation
- Drought monitoring, planning & management
- Dryland agriculture
- Flood hazard identification & mitigation

#### T-4: NIRMAL AND AVIRAL GANGA -WATER QUANTITY AND QUALITY MANAGEMENT IN INDO-GANGETIC PLAINS & BASEFLOW SUSTENANCE

- Surface water & ground water interaction
- · Groundwater & baseflow sustainability for river health
- Best watershed management practices for a clean river system: case studies from across globe
- Groundwater environmental flow and ecosystem services
- · Conjunctive water use management

### T-5: GROUNDWATER CONTAMINATION AND CHALLENGES

- Anthropogenic sources & remedies
- Geogenic sources & remedies
- Geochemistry & geochemical modeling
- Advanced instrumentation for water quality monitoring & assessment
- Advanced techniques for remediation of contaminated water including geogenic contamination: putting science to practice

#### SCIENTIFIC THEMES

#### T-6: GROUNDWATER AND MANAGEMENT

#### MODELING

### T-7: ADVANCED TECHNIQUES FOR

### GW EXPLORATION & ASSESSMENT

- · Groundwater flow and mass transport modeling
- Fracture geometry and flow mechanism in hard rocks.
- Model calibration and validation issues when using models as decision-making tools
- Skimming well techniques
- Aquifer characterization & parameter estimation
- Soft computing techniques in modeling & management
- Modeling and estimation of GW recharge

- Remote sensing and Geographic Information System (GIS) in groundwater
- Identification of fracture zones in hard rock region
- · Delineation of fresh and salt water interface in a coastal aquifer system
- Statistical techniques for estimation of hydrological variables
- Aquifer delineation, mapping, etc

#### T-8: AUGMENTATION OF GROUNDWATER RESOURCES

- Managed aquifer recharge
- Natural treatment techniques for enhancing groundwater resources
- Aquifer storage and recovery in inland and coastal areas: case studies
- · Revival and rejuvenation of rainwater traditional harvesting methods

#### T-9: ISOTOPIC TECHNIQUES IN GROUNDWATER INVESTIGATION & MANAGEMENT

- Surface-groundwater recharge management
- Stream-aquifer interaction
- Lake investigation & management
- Sea water intrusion
- Groundwater mixing and dynamics

#### T-10: GROUNDWATER POLICY, REGULATION AND GOVERNANCE

- Groundwater governance
- Groundwater development vs. management
- Pricing & regulation
- Water education
- Policy framework for enhancing groundwater recharge & management
- Groundwater economics & sustainability

#### ORGANIZING COMMITTEE

#### Conference Chairs:

Dr. Sharad K. Jain, Director, NIH, Roorkee, India Chairman, CGWB, New Delhi, India Dr. B. Venkateswara Rao, President, AGGS, India Prof. V.P. Singh, Texas A & M University, USA

#### **Conference Convener:**

Dr. N C Ghosh, Scientist G & Head, NIH, Roorkee, India

#### **Organizing Secretaries:**

Dr. Anupma Sharma, Scientist E, NIH, Roorkee, India Mr. K. C. Naik, Member, RGI, CGWB, Faridabad, India

#### **Joint Organizing Secretaries:**

Dr. Surjeet Singh, Scientist E, NIH, Roorkee, India Mr. G. C. Pati, Member, TT & WO, CGWB, Faridabad, India

#### ADVISORY COMMITTEE

- · Secretary , MoWR, RD&GR, Govt. of India
- . Secretary (DARE) & Secy. (ICAR), New Delhi
- Secretary Ministry of Development of North East Region, New Delhi
- · Chairman, CWC, New Delhi
- Director, IIT, Roorkee, India
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- Shri Gurdeep Singh, Chairman & Managing Director, NTPC Ltd., New Delhi
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- . Dr. A.R. Khan, DGM, NABARD HO, Mumbai, India

- Water Resources & Forestry, The Energy Institute, New Delhi
- · Dr. Jaco Cilliers, Country Director, UNDP in India, UNDP, New Delhi
- . Dr. M. Teresa Kho, Country Director, Asian Development Bank, New Delhi
- · Country Head (India), The World Bank, New Delhi
- · Director (Regional Head for Asia), IWMI, Sri Lanka
- Dr. K. Alagusundaram, Deputy Director General, Division of Agricultural Engg. New Delhi

#### TECHNICAL COMMITTEE

- Prof. G.C. Mishra, Roorkee
- Prof. Deepak Kashyap, IIT, Ropar, India
- Dr. M.Thangarajan, NGRI, India
- Dr.D.C.Singhal, India
- Dr. L.Elango, Anna University, Chennai, India
- Dr. Abhijit Mukherjee, IIT, Kharagpur, India
- Dr Dipankar Saha, CGWB, India
- Mr. Sanjay Bajpai, DST, India
- . A. L. Ramanathan, JNU, New Delhi
- Dr.Ashok K.Keshari, IIT, Delhi, India
- Prof.C.S.P.Ojha, IIT, Roorkee, India
- Er. R. D. Singh, Roorkee
- Dr. Bhishm Kumar, Roorkee
- Dr Sudhir Kumar, NIH, Roorkee
- Dr K D Sharma, Jodhpur, India
- · Prof.Rajiv Sinha, IIT, Kanpur, India
- Dr. M. Sekhar, Professor, IISc, Bangalore, India
- Mr. Nitin Sukh, YES Institute, New Delhi
- Dr.Shrikant D.Limaye, Water Institute, Pune, India
- Dr. Shakeel Ahmed, CSIR- NGRI, Hyderabad, India
- Sr. C. Mayilswami, Secretary, AGGS, Coimbatore, Tamil Nadu
- Prof. Himanshu Joshi, IIT ,Roorkee
- Dr. P. Rajendra Prasad, Andhra University, Visakhapatnam

- Prof. John Tellam, University of Birmingham, UK
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- Dr. Upali Amarasinghe, IWMl, Sri Lanka
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- Prof. Moumtaz Razack, University of Poitiers, France
- Dr.K.M.Ahmed, University of Dhaka, Bangladesh
- Prof. Dr.-lng. Thomas Grischek, Dresden, Germany
- Dr. Avdesh K. Tyagi, Oklahoma State University, USA
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- Prof. Nam C. Woo, Yonsei Univ., Seoul, Korea
- Dr. T.N. Olsthoorn, Delft, Netherlands
- Dr. S Majid Hassanizadeh, Utrecht University, Netherlands
- Prof. Dajun Shen, Renmin University of China
- Dr. Rauf Israfilov, Institute of Geology,
  Hydrogeology and Engineering Geology
  Laboratory, Azerbaijan
- Dr. Ricardo Hirata, University of São Paulo, Brazil

#### CALL FOR PAPERS

You are invited to submit papers on the mentioned themes through our website www.nihroorkee.gov.in/igwc2017

electronically by August 31, 2017. Mention your affiliation, mailing address, phone and fax numbers and e-mail address. Alternatively, you can also email the papers to the Organizing Secretary IGWC 2017 by above date at igwc2017@gmail.com.

#### KEY DATES

Paper submission: Oct 5, 2017 Paper acceptance: Oct 15, 2017 Registration deadline: Nov. 15, 2017

#### VENUE

NASC Complex, ICAR, New Delhi

#### REGISTRATION FEE

Delegates Indian	Rs. 4500* +18% GST
Delegates Foreign	USD 250*
Indian Research Scholars/Students	Rs. 2500*+18% GST
Foreign Research Scholars/Students	USD 140*
Accompanying Person	Rs. 2000(Indian) **+18% GST
	USD 100 (Foreigners)**

<sup>\*</sup>Includes conference dinner, working lunch, registration material, and tea.

Note: All foreign participants have to pay their registration fee in US Dollars only.

Note \* :Registration fee may be submitted through either bank transfer or through demand draft (DD) drawn in favor of IGWC-2017, payable at Roorkee, India and sent to Conference Secretariat, IGWC 2017, National Institute of Hydrology, Roorkee 247667, India on or before Oct. 31, 2017. All AGGS life members will get 10% discount in registration fee.

Details of payment of registration fee through bank transfer:

Account Number: 4044000100176586

Bank: Punjab National Bank

State: Uttarakhand District: Haridwar Branch: IIT Roorkee

IFSC Code: PUNB0404400 (5th character is zero)

SWIFT Code: PUNBINBBRKU MICR Code: 247024103

Branch Code: 404400 (Last 6 Characters of the IFSC Code)

City: Roorkee

Updates will be posted on our website: www.nihroorkee.gov.in/igwc2017

<sup>\*\*</sup> Includes conference dinner, working lunch, tea

#### SPONSORSHIP

The International Ground Water Conference IGWC-2017 will provide *The Smart Way to Showcase* established and emerging technologies where a company can display its profile and strengthen its brand image.

The Exhibition includes top Business Houses, International and Indian manufacturers, Research Companies, Firms and Laboratories. **IGWC-2017** provides the exhibitors with promotional tools to deliver maximum exposure before, during and after the event. All platinum, gold and silver exhibitors shall receive the following entitlements:

- Acknowledgment in the Sponsor & Exhibitor section of the Conference Program (including logo and short promotional paragraph)
- Acknowledgment in the Sponsor and Exhibitor section of the Conference Website (including logo, hyperlink to your website and short promotional paragraph)

#### **SPONSORS AND EXHIBITORS**

Deliverables	Platinum + Hosting Linch on Day I	Platinum + Dele- gate Bag	Platinum + Hosting Hi tea Inau- gural on Day I	Gold + Hosting Hi ten Valedic- tory on Day 3
Rates in INR	7 lac	7 lac	6 lac	5 lac
Logo on event website with links	<b>✓</b>	1	1	<b>/</b>
Logo in backdrop of the event	1	✓	<b>/</b>	<b>/</b>
Sponsors slot during the Conference	10 mins	10 mins	5 mins	
Sponsor Logos to be played in loop during screen intervals		<b>/</b>	<b>1</b>	<b>/</b>
Company brochure in delegate kit		<b>✓</b>		
Pages in Souvenir	One page (color)	One page (color)	One page (color)	One page (color)
Standing banners at strategic locations (Nos)	2	2	2	2
Acknowledgement in the Valedictory Session			✓ =	
Stall Size	3x2m	3x2m	3x2m	2x2m
Complimentary passes to attend the conference (Nos.)	5	5	5	3

SPONSORSHIP								
Deliverables	Gold + Hosting Lunch on Day 2	Silver + Hosting Lunch on Day 3	Platinum	Gold	Silver			
Rates in INR	5 lac	4 lac	3 lac	2.5 lac	1.75 lac			
Logo on event website with links			<b>V</b>		1			
Logo in backdrop of the event	<b>/</b>	/	<b>/</b>	<b>/</b>	1			
Sponsors slot during the Conference								
Sponsor Logos to be played in loop during screen intervals	<b>*</b>							
Company brochure in delegate kit			<b>✓</b>	V	<b>*</b>			
Pages in Souvenir	One page (Color)	One page (Color)	Half page (Color)	Half page (Color)	Half page (Color)			
Standing banners at strategic locations (Nos)	2	1	1	1	1			
Acknowledgement in the Valedictory Session	1	/	<b>/</b>	<b>V</b>	✓			
Stall Size	2x2m	2x2m	2x2m	2x2m	2x2m			
Complimentary passes to attend the conference (Nos.)	3	3	2	2	1			

#### BRUCHURE CUM SUUVENIK ADVERTISEMENT

TYPE	SIZE A4	AMOUNT	
Full Page Inside Front	21cm x 29.7cm	1,00,000	
Full Page Inside Back	21cm x 29.7cm	85,000	
Full Page	21cm x 29.7cm	75,000	
Half Page	21cm x 14.85cm	50,000	
Centre Spread		75,000	

#### SPONSORSHIP STALL CATEGORIES Rates in INR Stall Size Units Exhibitors passes 2 no. Shell space 3m x 2m Carpet 1 no. Table 1 no. 1,50,000 $3m \times 2m$ Chairs 2 no. Waste paper basket 1 no. Plug point 1 no. Spot lights 2 no. Exhibitors passes 2 no. Shell space 2m x 2m Carpet 1 no. Table 1 no. 1,25,000 2m x2m Chairs 2 no. Waste paper basket 1 no. Plug point 1 no. Spot lights 2 no.

Note: Delegates circulation is planned to be through the stalls. GST will be applicable on the above rates

Please visit the IGWC 2017 website (<a href="http://nihroorkee.gov.in/igwc2017/">http://nihroorkee.gov.in/igwc2017/</a>) for further details of Event Manager and Terms and Condition.

### Top Ten Reasons to Join Us at IGWC-2017, New Delhi

- Learning what the top experts say
- Sharing your research
- Networking opportunities abound
- Case studies and real life examples
- Chance to promote your innovative technology
- Key note presentations and a panel of international groundwater experts
- Exposure to latest emerging techniques
- Be a participant in planning water security for future
- Contribute your bit for groundwater science
- Tours and social program

For foreign delegates it is a great opportunity to visit India, the fastest growing economy of the world with 1.25 billion people. New Delhi is the capital of India and one of the most vibrant cities with a mix of culture, heritage and modernity.

Tours & Social

**Tours**: Post conference on Day 4 of the event, tours for delegates and accompanying persons

shall be arranged to the picturesque historical places near Delhi including the majestic 'Taj Mahal' in Agra on the payment basis.

**Social Program**: A full social program will be arranged, including: a welcome reception for all participants and accompanying persons; and, a Cultural Program followed by Conference Gala Dinner on Day 2 of the event.

Accommodation

Hotel rooms would be available for delegates in a wide range of categories, from 3\* to

luxury 5\* on the payment basis. The hotel details shall be posted on our website: www.nihroorkee.gov.in/igwc2017

Full details of technical sessions and conference activities will be published in the final bulletin which will be available in September 2017. All the forms (registration/accommodation/tour) will be available on our website. Meanwhile for more information, contact the conference convener or the organizing secretary.

#### CONTACT DETAILS

#### Conference Convener IGWC 2017: Dr. N.C. Ghosh

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### Joint Organizing Secretary IGWC 2017: Dr. Surjeet Singh

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