

Indian National Chapter



of

International Association of Hydrogeologists (INC-IAH)

In association with

Department of Civil Engineering Jamia Millia Islamia

organises

# NATIONAL SEMINAR



## RESILIENCE OF GROUNDWATER RESOURCES FOR ACCOMMODATING CHANGING CLIMATE SCENARIOS

schedule

SATURDAY, NOVEMBER 07, 2020 09:30 am - 06:30 pm venue

**FET AUDITORIUM** Faculty of Engineering & Technology Jamia Millia Islamia, New Delhi

Cosponsored by

Jal Shakti Ministry (GOI), CGWB, DST, AGGS, and CSIR-NGRI



Global Water resources are vulnerable and already affected by climate change with wide-ranging consequences for societies, economies, and the natural environment. The associated changes in the available water resources and their quality are also responsible for increased health risks as well as food security. These changes can result in an increase in emerging infectious diseases.

A special concern is linked to the disruption of water supply and sanitation systems during extreme events that might result in an increase in water-borne infectious diseases.

Current water management practices may not be robust enough to cope with the future impacts of climate change on water resources, flood risk, agriculture and groundwater ecosystems. In addition, natural changes can be exacerbated by illegal actions such as indiscriminate drilling activities leading to groundwater overexploitation which underlines the need for strong legislation and its compliance.

India is among the countries most vulnerable to the adverse effects of climate change, and widespread poverty limits its ability to adapt due to its burgeoning population. Adaptation to climate change is consequently indispensable and urgent since the climate is already changing in many respects, and mitigation will take too long to show effects. Further, climate change throughout this century and beyond is almost certain even if global mitigation efforts prove successful. Adaptation represents an important challenge for all countries, especially for those with economies in transition. Assessing the impacts of climate change on groundwater resources represents one of the most difficult challenges faced by water resources specialists.

Migration from rural to urban areas has increased asymptotically in India due to socio-economic factors and has resulted in creation of huge periurban areas in almost all cities of India. This has been so unorganized and massive in magnitude that we faced tremendous issues in implementing the lockdown in the country recently, following the COVID19 crisis. Such a situation of having larger peri-urban than the urban areas puts heavy pressure on the natural resources including water resources. The situation becomes much severe with the impact of climate change that often brings floods to the cities only.



Accordingly, it is imperative to discuss these issues at a common platform, along with success stories to arrive at the best practices to create resilience and to cope up with the situation, we propose to confine to the following topics in a one-day seminar and invite research contributions from interested participants. It is now proposed to invite abstracts for presentation and the selected ones based on the recommendation of the session chair will be published as full papers in the e-Journal of INC-IAH

#### **SEMINAR THEMES**

- T1: Emerging Techniques of Groundwater Exploration and Management.
- T2: Managed Aquifer Recharge, Groundwater Contamination and Treatment Techniques.
- T3: Groundwater Resources vulnerability, resilience and sustainable management.
- T4: Community Participation, Governance and Regulation for feasible mitigation.

## **Program Schedule**

Registration	:	9:30 am to 10:00 am
Inaugural Function	:	10:00 am
High Tea	:	10:30 am
Technical Session T1	:	11:00 am Emerging Techniques of Groundwater Exploration & Management
Technical Session T2	:	12:00 noon Managed Aquifer Recharge, Groundwater Contamination & Treatment Techniques
Lunch Break	:	13:30 pm
Technical Session T3	:	14:30 pm Groundwater Resources vulnerability, resilience and sustainable management.
Tea Break	:	15:30 pm
Technical Session T4	:	15:45 pm Community Participation, Governance and Regulation for feasible mitigation.
Concluding Session	:	17:00 pm Panel Discussion on Groundwater Issues of NCT, Delhi and Valedictory Session
Refreshment	:	18:00 pm

\*Note: Each technical session to start with a Keynote, followed by delegate presentations.

Interested delegates should preregister online, August 01,2020 onwards (at http://inciah.org)

**Submission of Abstracts**: June 01,2020 onwards, closing on September 15,2020

**Submission of Full Accepted papers** to be published in the e-Journal: November 30, 2020

#### **Guidelines for the abstract:**

The abstract should be in English as a Microsoft word file. Title: It should be in capital and restricted to twenty words (Font size: 14; Font type: Times New Roman; centre aligned text with single line spacing and in bold)

Author details: Full name of each author with their current affiliation details and email ID must be provided (Font size: 12; Font type: Times New Roman; centre aligned text with single line spacing)

Key words: Maximum six.

Contents: The accepted word limit of abstract is 250 words (Page size-A4 with 2cm margin on all sides; Font size: 11; Font type: Times New Roman; single line spacing)

The submission of abstract following the guidelines as well as any correspondence regarding the seminar may be made to the email: rgr.ccs@gmail.com

#### **Registration Fee:**

Indian Delegates: INR 1000, Foreign Delegates: US\$ 150, Member INC-IAH: Free Accompanying Person: INR 500 or US\$ 50

#### **Delegate Registration**

The delegates are invited to submit abstracts for presentation in the seminar. The registered authors of abstracts approved by the technical committee of the seminar will be invited for ORAL presentation in the seminar. However, for delegates being unable to present their paper in person, there is an option available to make an online presentation of their paper in prerecorded narrated PowerPoint. The authors of the accepted abstracts will also have an option of submitting full paper. The accepted full papers will be published in the e-Journal of Geohydrology of the Indian National Chapter of the International Association of Hydrogeologists (INC-IAH).

### Seminar Committee(s)

#### **Seminar Chairs**

Shri G.C. Pati, Chairman CGWB, Patron, INC-IAH Prof D.C. Singhal, President, INC-IAH

#### **Seminar Convenors**

Prof Shakeel Ahmed, MK Gandhi Chair, Deptt. of Geography, Jamia Millia Islamia Prof Mohd. Shakeel, Deptt. of Civil Engg, Jamia Millia Islamia Prof BS Chaudhary, Deptt. of Geophysics, Kurukshetra University

#### **Seminar Organising Secretaries**

Dr Shashank Shekhar, Deptt. of Geology, Delhi University Dr Anil Kumar, Scientist, DST, New Delhi

#### Seminar Organising Committee

Prof A.K.Sinha,VC, C S University, Mumbai Dr S.P.SinhaRay, CGWR, Kolkata Prof Gauhar Mahmood, Civil Engg, JMI, New Delhi Prof Naved Ahsan, Civil Engg, JMI, New Delhi Dr Sudhanshu Shekhar, CGWB(MER), Ranchi Dr MA Farooqi, CGWB, (Retd.) Bengaluru Shri M.K.Garg, CGWB, Faridabad Sri Ranjan Sinha, Cairn Energy, Gurugram

#### **Seminar Advisory Committee**

Prof Najma Akhtar, VC, Jamia Millia Islamia Dr DK Chadha, Former Chairman, CGWB Dr V.M.Tiwari, Director, CSIR-NGRI, Hyderabad Prof Antonio Chambel, President, IAH, Portugal Dr. Peter Dillon, Ex-CSIRO, Australia Prof E.A. Mcbean, University of Guelph, Canada Prof David Polya, Manchester University, UK Prof A.L. Ramanathan, President, AGGS Prof Shamshad Ahmad, Head, Civil Engg., JMI Dr R.C. Jain, Advisor, GWRDC, Ahmedabad Dr Sunil Kumar, Member (HQ), CGWB Dr S.N. Rai, Former Scientist G ,NGRI, Hyderabad Shri Sanjay Marwah, Member, CGWB Shri Biplob Chatterjee, Geovale Services, Kolkata Dr Brijesh Yadav, Dept of Hydrology, IIT, Roorkee

#### **Seminar Technical Committee**

Dr Dipankar Saha, Member (Retd.) CGWB Prof L. Elango, Anna University, Chennai Prof Saumitra Mukherjee, JNU, New Delhi Prof Rashid Umar, AMU, Aligarh Prof Madan Jha, IIT, Kharagpur Prof P.K. Sikdar, IISWBM, Kolkata Dr Abhijit Mukherjee, IIT, Kharagpur Dr Manish Kumar, IIT, Gandhinagar Dr Ashok Kumar, Cairn Energy, New Delhi

#### Indian National Chapter of International Association of Hydrogeologists (INC-IAH)

International Association of Hydrogeologists (IAH) was established in 1956 to promote cooperation, to advance the science of hydrogeology worldwide and to facilitate the international exchange of information on groundwater. IAH's membership includes about 4,000 representing 135 countries. IAH has 43 country chapters, including India. Thus, Indian National Chapter functions as a strong bridge between Indian hydrogeologists and the IAH. The INC-IAH was established in 1984 and since then, sincere efforts have been made to enhance the activities and strengthen the membership of IAH. INC-IAH also provides a valuable forum for scientists and engineers working in the fields of hydrogeology and groundwater resource planning, management, and protection who have a broad interest in promoting the hydrogeological sciences. Now the INC-IAH is able to organize its annual convention in the format of a seminar, organize special lectures by the eminent scientists under a National Groundwater Lecture Series, encourage the member hydrogeologists by various awards and have recently decided to publish an online-journal as 'e-Journal of Geohydrology'. The present headquarter of INC-IAH is hosted by the Central Groundwater Board, Bhujal Bhavan, CGO Complex, Faridabad.

#### Jamia Millia Islamia, New Delhi

Jamia Millia Islamia, an institution originally established at Aligarh in United Provinces, India in 1920 became a Central University by an act of the Indian Parliament in 1988. In Urdu language, Jamia means 'University', and Millia means 'National'.

The story of its growth from a small institution in the pre-independence India to a central university located in New Delhi—offering integrated education from nursery to research in specialized areas—is a saga of dedication, conviction and vision of a people who worked against all odds and saw it growing step by step. They "built up the Jamia Millia stone by stone and sacrifice by sacrifice," said Sarojini Naidu, the nightingale of India. JMI is celebrating its Centenary year in 2020.

The Department of Civil Engineering is one of the oldest and the largest department in the Faculty of Engineering & Technology. The department has produced several eminent engineers who have made important contributions in the planning and execution of many important Civil Engineering projects in India as well as abroad.