

CALL FOR ABSTRACTS

Scientific and Technological
Approaches for
Sustainable use of
Water Resources



Gist 2010

Global Indian Scientists &
Technocrats Convention 2010

26th & 27th December 2010
Pune India

ORGANIZED BY:
**Vijnāna Bhārati &
Maharashtra Education Society, Pune**
www.gist2010.org

INTRODUCTION

Launched in 1991 as a “Swadeshi Science Movement”, by a group of eminent thinkers and scientists, Vijnana Bharati is now a national movement dedicated for integrated development of India through the intervention of Engineering, Science and Technology.



Maharashtra Education Society, one of the oldest Institutes celebrating their post centenary golden jubilee of formation is co-organizer of this convention. MES has over 38 educational units spread all over Maharashtra and imparts education to more than 40,000 students in all disciplines ranging from pre primary to post graduate and research level.



Realizing the urge of the Indian S & T fraternity and the Indian Diaspora to share their knowledge and experience for seeking sustainable solutions for long standing problems faced by the country, Vijnana Bharati has decided to bring **Global Indian Scientists & Technocrats** together for a convention in which contemporary innovations could be identified. The concept of GIST convention has received wide acceptance among the scientific groups.

Using this platform, GIST Convention has focused this year on the theme of “**Scientific and Technological approaches for sustainable use of Water Resources**” for its maiden convention being organized in Pune on 26th & 27th December 2010.

Although renewable yearly, and being variable both spatially and temporally, Water Resource (WR) availability on an average is finite and fairly reliable at river basin level. Growing economy coupled with high population growth and the likely climate change will affect its availability calling for greater adaptability & scientific approach in its future use . The theme is therefore expected to bring out clearly the equations between availability and needs / demands for various uses.

Advisory Board:

Chairman

Dr Anil Kakodkar Former Chairman Atomic Energy Commission of India

Members

Dr Raghunath Mashelkar Former DG CSIR

Dr Madhav A Chitale Former Secretary Water Resource GoI & later Secretary General ICID honairare

Dr Madhav Gadgil Member National Advisory Board GoI

Dr K I Vasu Former Pro Vice Chancellor Kochi University & Patron Vijnana Bharati

Dr Yeshwant Waghmare Former Dean IIT Kanpur

Dr G D Yadav Director Institute of Chemical Technology

Dr Satheesh Shenoi Director INCOIS

More names are being added

Convention Committee:

Chairman

Dr Vijay Bhatkar National President Vijnana Bharati

Co Chair

Ravindra Wanjarwadkar Chairman Governing Council (MES)

Convener

Ramesh V Kulkarni

Secretary General

Jayakumar Appukuttan

Secretary

Jayant Sahasrabuddhe
Shrikant Kulkarni

Treasurer

Arun Patwardhan

Scientific Program Committee

Chairman

Dr Chandrakant D Thatte
Former Secretary Water Resource GoI &
later Secretary General ICID honairare

Convener

Vidyanand M Ranade
Former Secretary Water Resource Development GoM

Members

Dr. D M More	Former DG R&D, WRD GoM
Dr. I D Gupta	Director CWPRS
C M Pandit	Chief Engineer National Water Academy
S P Bagade	Former Director GSDA Pune
Dr D R Ranade	OinC Agharkar Research Institute
Dr A D Patwardhan	Retd Prof VJTI
A V Surve	Vice President IEI India & Chairman IEI PLC

Convention Topics

River Basin Hydrology & Climate Change

- ✓ Downscaling of Global Circulation Models (GCM) to forecast impacts on Hydrological cycle, Indian Monsoon and WR of major river basins in the country
- ✓ Impact of Climate Change on snowmelt contribution to WR of Himalayan rivers.
- ✓ Capacity of existing WR infrastructure and addition needed to cope up with likely increase in frequency of extreme climatic events viz. droughts & floods.
- ✓ Measures to modernize the existing WRD



infrastructure and to frame fresh guidelines for planning of new infrastructure for both intra and interbasin use of WR.

- ✓ Review of urban hydrology considering effects of changes in urban land use pattern due to rapid economic growth, urbanization and industrialization.
- ✓ River basin authorities to ensure sustainable development by observing IWRM principles and sharing of water resources.

Water & Irrigated Agriculture

- ✓ Contribution of deep percolation losses from conventional irrigation in recharging groundwater, but its pollution due to insecticides and chemical fertilizers
- ✓ Performance evaluation of existing WRD Infrastructure & its modernization, with focus on water and land productivity.
- ✓ Need to introduce Micro / precision Irrigation System on surface irrigation schemes and on well irrigation
- ✓ Treatment of waste or poor quality waters and their use for irrigated agriculture
- ✓ Limits to augmentation of ground water recharge by watershed development
- ✓ Use of Satellite Imageries for groundwater assessment and precision farming



Water for Drinking / Domestic & Industrial Use

- ✓ Measures to reduce wastage in transmission of water to user
- ✓ Urban rain water harvesting to augment GW and reduce surface runoff
- ✓ Aiming at zero effluent discharge from industrial use, to reduce consumptive use of water and quantum of effluent generated.
- ✓ 24/7 and metered supply for domestic use to prevent wastage of costly treated water.
- ✓ Observations on National and State Water Policy

Water for Energy

- ✓ Highlighting low consumptive use for environment friendly hydro power generation
- ✓ Need to generate hydro power at Large dams, Cascading / mini /micro schemes, Reversible turbine schemes
- ✓ Possibility of getting Carbon Credits from hydro power generation
- ✓ Estimating water requirement for Thermal Power stations in the future

Water for Environment

- ✓ Projected future use of water for non irrigation purposes by humans and expected reusable Water Resource after treatment of the effluent
- ✓ Advancements in membrane technology & desalination
- ✓ Energy efficient effluent treatment & Bio measures for effluent treatment
- ✓ Treatment of toxic chemicals & heavy metals from industrial waste water
- ✓ Possibility and scope for use of bio-insecticides and bio-fertilizers.
- ✓ Water needs of terrestrial & aquatic ecosystems (minimum and environmental flow) & evaluation of their economic cost to the society.



Submission Information

Abstract of Papers responding to any of the topics outlined under each theme of the sessions are invited for the GIST Convention 2010.

Each Abstract having about 500 words, typed in Arial font 10 in single spacing , with title in font 12 bold and names of author/s, should be submitted "on line" before 1st October 2010. One page bio-data of author/s should be sent with the Abstract. Full name and address of communication be written at the end of the abstract. Name of the session and the sub theme should be written on the Abstract in top right corner.

Abstract should actually be in the form of paraphrased contents of the proposed paper, since only a volume of Abstracts is proposed to be published. Invited Theme papers would be published in full length.

All accepted papers in full length would be included in a CD, which would be given to all the registered participants. On the advice of Scientific Program committee (SPC), selection of abstracts for submission of full length paper will be communicated in early October 2010.

Each paper presenter will be a registered delegate.

It is proposed to hold a separate Poster Session. Cash award would be given to the best poster presentation. The SPC may identify some Abstracts for poster presentation instead of their acceptance as a full length paper. Please indicate your willingness to present contents of your proposed paper in the poster session while submitting the abstract.

Detailed guidelines for paper and poster presentation will be furnished in the next bulletin

On Line Submission:

Email: abstracts@gist2010.org

Important dates

Abstract submission: 1st October 2010.

Acceptance of Abstract: Early October 2010.

Submission of full length paper: 31st October 2010.

Convention Program

Inaugural key note speech

Five technical sessions with theme speeches

Poster presentation.

Industrial Exhibition.

Science Talk Fest with Senior Scientists

Registration Charges:

Category	INR	US \$
Delegates	4000	100
Early Bird Discount for registering before 30th September 2010	3000	75
Members of organizing institutions, Scientific program committee members, paper & poster presenters	2000	50
Students	1000	25

Convention Venue:

Maharashtra Education Society's

Abasaheb Garaware College

Karve Road, Pune 411004 (Maharashtra) India

Convention Secretariat:

GIST Convention 2010

IMCC compound, 131, Mayur Colony

Kothrud, Pune 411038 (Maharashtra) India

TeleFax: 020 64010295

E Mail: secretary@gist2010.org

www.gist2010.org