

# XXXII GUJARAT SCIENCE CONGRESS – 2018

Science and Technology for Capacity Building & Inclusive Growth:  
The Role of Academies and Academia

4-5, February, 2018



Jointly Organized by



75 Years of  
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CSIR - CSMCRI

CSIR-Central Salt & Marine Chemicals Research Institute



MK Bhavnagar University



Under the aegis of



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GUJARAT SCIENCE ACADEMY

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Plasma Research  
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Gujarat University  
Ahmedabad


Venue: Shree Zhaverchand Meghani Auditorium, Sardarnagar Circle, Bhavnagar

## IMPORTANT DATES

Submission of abstracts: 5th Jan. 2018

Notification of acceptance: 12th Jan. 2018

Last date for registration, transfer of registration fee and request for accommodation: 19th Jan. 2018



Theme

## Science and Technology for Capacity Building & Inclusive Growth: The Role of Academies and Academia

In the 20th century, Science and Technology has substantively improved the quality of human lives through improved health care, extended longevity, rapid transportation, instantaneous communication, efficient illumination and energy systems and an ever increasing knowledge and innovation base. The rapidity of change has been phenomenal and at time, truly mind boggling.

However, this quest for overall wellbeing, also witnessed unconcerned exploitation of both renewable and non-renewable natural resources with their attendant environmental impacts. These acts that compromise environmental and resource security now necessitate a look of how the future generations would resource or survive itself.

A recent United Nations report states that India is at a undeserved yet undeniable circumstance to be classified as Water Stressed State (defined as per capita availability of water less than 1,700 m<sup>3</sup>/year). And, this transition from being Water Rich State at the time of Independence ( 6000 m<sup>3</sup>/year) occurred in few decades.

Likewise, most other essential resources such as fossil sources, rare earths, precious metals, and minerals are under increasing threat of extinction and depleted ease of availability, both in India and but globally, as well. It is anticipated that future wars will be wars for resources and knowledge and, the key to any Nation's survival will be through the development of well calibrated strategies for cleaner environments, resources optimization and through establishment of a rational, scientifically trained society.

Over the past few decades Indian economy has grown well, largely on account of its IT industry. However, long term sustenance of Nation's growth will accrue only through creation of new innovation and knowledge in Science and Technology. It will be erroneous to base our economy exclusively on service industries that by definition are fragile and temperamental. Further, for an inclusive and a sustainable growth, it is imperative science and technology gets intimately integrated with society through education, such that future generation and society have the capacity and the character, to adapt to new technology and cope up with new challenges.

Thus, Capacity Building in Science and Technology will be cardinal to creating a happy, healthy, and sustainable India. Presently, India invests a bit less than 1% of its GDP in Science and Technology and has a qualified but a meagre professional work force of around 0.2 million. This needs to change both in the supply side and delivery side as well. The challenge will be to augment our skills base in near real time and within the present frame work of science and education; administration and resources. While, the government supports Science and Technology endeavours and expects that the 'fruits of the scientific interventions should bring smiles on the faces of our fellow citizens', there is a need for optimization of resources and efforts with a well designated strategy to create an ecosystem for overall growth of skilled manpower in science and technology and a scientific temper in the society. Only then the vision, of 'quality science to deliver quality solutions' would be realized.

Gujarat Science Academy (GSA) has been associated for more than three decades in such capacity building in Science & Technology through various means and has been expanding the activities over the years. With this back drop and under the aegis of GSA, the XXXII Gujarat Science Congress – 2018, organized jointly by CSIR-Central Salt and Marine Chemicals Research Institute and Maharaja Krishnakumarsinhji Bhavnagar University at Bhavnagar, would discuss, dwell and debate on the opportunities, directions, gateways, and strategies for 21st Century Capacity Building in Science & Technology for Inclusive Growth. GSC-2018 will thus discuss on the preeminent role and societal responsibilities of academies and academia on this endeavour in Nation building.

### Highlights of the Congress

- Inaugural Lecture by  
Padma Vibhushan Prof. Man Mohan Sharma, FRS
- Shri S. R. Thakore Memorial Lecture,  
Prof. Abhijit Pandya  
Dean, Florida Atlantic University, USA
- Lunar and Planetary Science Society's Endowment Lecture  
Prof. A. Bhardwaj, Director, PRL, Ahmedabad
- Dr. A. S. Divatia Memorial Lecture  
Prof. Dinakar Kanjilal, Director, IUAC, Delhi
- Invited Lectures by Eminent Scientists
- GSA-Teacher Awards for Under Graduate  
& Post Graduate Teachers
- Prof. P. A. Pandya Best Teacher Awards
- Charusat Best Ph.D. Thesis Award



### Invited Speakers at GSC-2018

- Prof. Sourav Pal, Director, IISER, Kolkata
- Prof. L. S. Shashidhara, IISER, Pune
- Dr. Kirit S. Yajnik, Honorary Scientist, CSIR 4PI, Bengaluru
- Prof. A. M. Vaidya (Retd.)  
Department of Mathematics, Gujarat University
- Prof. Arun Kumar Dave  
Lok Bharti Gram Vidyapith, Vignan Bhavan, Guj.

### Public Lecture

Dr. Girish Sahni, Director General, Council of Scientific and Industrial Research (CSIR), New Delhi  
Dr. Ajit V. Sapre, Group President R&T, Reliance Industries Limited, Mumbai

### Awards for Exceptional Posters

Individual awards will be given in the following themes:

- Life, Pharmacy, Medical and Forensic Sciences
- Chemical Sciences
- Genetics and Biotechnology
- Mathematics, Statistics, Computer, IT
- Physics and Material Sciences
- Engineering Sciences
- Geography, Earth and Environmental Sciences

### About CSIR-CSMCRI

CSIR-Central Salt & Marine Chemicals Research Institute (CSIR-CSMCRI; [www.csmcricri.res.in](http://www.csmcricri.res.in)), one of the constituent laboratories of Council of Scientific and Industrial Research, inaugurated by Late Pandit Jawaharlal Nehru on 10<sup>th</sup> April, 1954 has been pioneering its research on salt, marine chemicals, water desalination and purification, seaweed biology and biotechnology and their value generation, inorganic materials for diverse applications ranging from catalysis, diagnostics, and separations, and wasteland development (including coastal land) backed up by state-of-art analytical services and instrumentation, process engineering, information technology, and knowledge resource centre. The mission of CSIR-CSMCRI and its people is to work in partnership with visionary sponsors and collaborators to generate the knowledge and technologies backed by innovations to address focused needs of industries, organizations and society at large in the region and beyond.

### About MK Bhavnagar University

Maharaja Krishnakumarsinhji Bhavnagar University, spread over 3 campuses, provides training in Sciences, Medicine, Commerce, Arts and Humanities to students of the region through 20 Post Graduate departments, 4 constituent and 100+ affiliated colleges including five national recognized centres. About 35000 students from this region are affiliated with the university. Some of the major research areas on which the University have left its marks namely magnetic fluids, nano science, astronomy, electronics, organic and medicinal chemistry, polymer and environmental chemistry, marine and coastal ecology, bioremediation, extremophiles, population zoology, economics of higher education, Gujarati language, literature, folk lore and cultural studies. This led to recognition of teachers and students through national and international awards/fellowships. The University also offers facilities for sports and cultural activities that brought laurels at national and international events.

### About GSA

Gujarat Science Academy (GSA), established in 1978, is a premier academic organization comprising eminent scientists of Gujarat in all spheres of science and engineering. At present, GSA has 290 Fellows and Associate Fellows, besides ordinary members. Gujarat Science Congress is held annually in different parts of Gujarat. GSA activities include improvements of science education; new directions in research; training programs for students and teachers; outreach counselling; recognition of outstanding teachers, students and lecture awards for scientists of distinction.

### Abstract Submission

Abstract in the format not exceeding 200 words prescribed at [www.csmcricri.res.in](http://www.csmcricri.res.in) can be sent through e-mail: [gsc2018@csmcricri.res.in](mailto:gsc2018@csmcricri.res.in)

## Registration Fees

Registration fee will cover conference kit, tea or coffee, lunch and dinner during the conference.

Students (UG & PG): ₹600/-

PhD and Project Fellows: ₹1000/-

Faculty / Post-Doc. of Academia & Research Institutions: ₹2000/-

Industry and others: ₹5000/-

Spot registration: Add 10% of the registration fee

## Reaching Bhavnagar

Nearest airport: Bhavnagar / Ahmedabad / Vadodara; 200 Km by road to reach Bhavnagar from Ahmedabad / Vadodara

Nearest railway station: Bhavnagar / Ahmedabad / Vadodara

GSRTC / Luxury buses are available from Ahmedabad / Vadodara to reach Bhavnagar (~4-5 hours; For more details see [www.csmcni.res.in](http://www.csmcni.res.in))

## Organizing Committee

Patron	:	Dr. Amitava Das, Director, CSIR-CSMCRI Prof. Shailesh Zala, Vice Chancellor, MK Bhavnagar University
Convenor	:	Dr. Kannan Srinivasan, CSIR-CSMCRI, Bhavnagar Prof. S. P. Bhatnagar, MK Bhavnagar University, Bhavnagar
Secretary	:	Dr. Divesh N. Srivastava, CSIR-CSMCRI, Bhavnagar Prof. Nisarg K Bhatt, MK Bhavnagar University, Bhavnagar
Treasurer	:	Dr. P. S. Subramanian, CSIR-CSMCRI, Bhavnagar Dr. Kamlesh Prasad, CSIR-CSMCRI, Bhavnagar

## Local Organizing Committee

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Dr. E. Suresh	Dr. Sandhya Mishra	Dr. Puyam S. Singh	Dr. S. Adimurthy
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### MK Bhavnagar University

Prof. N.C. Desai	Prof. Bharti P. Dave	Dr. I.R. Gadhvi	Dr. M.M. Trivedi
Dr. Mayuri M. Pandya	Mr. S.R. Dwivedi	Dr. Vedant V. Pandya (OSD, Registrar)	

## GSA Executive Council

President	:	Prof. A. K. Singhvi	Members	:	Prof. A. R. Jani
Vice President	:	Prof. Shobhana K. Menon			Prof. S. R. Dave
	:	Prof. K. N. Joshipura			Prof. Nilesh Bhatt
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Treasurer	:	Prof. T. C. Pandya			Prof. Mihir Joshi
					Prof. Dr. Kannan Srinivasan
					Prof. Datta Madamwar

## Accommodation

Accommodation (₹500/day) at nearby hotel/guest house will be arranged on first come first served basis and on advance payment. More details on accommodation available at [www.csmcni.res.in/gsc2018](http://www.csmcni.res.in/gsc2018).

Please send your request at [gsc2018@csmcni.res.in](mailto:gsc2018@csmcni.res.in)

## Sponsorship information (₹ In Lakhs)

Lead sponsor	>2.0 (Max. - 2)	Platinum sponsor	2.0
Gold sponsor	1.5	Silver sponsor	1.0

For details of the benefits of Sponsors, please visit the website [www.csmcni.res.in](http://www.csmcni.res.in)

## Logistics and Transportation:

Transport arrangements from various pickup points in Bhavnagar to venue and back will be arranged. Kindly follow the CSIR-CSMCRI website ([www.csmcni.res.in](http://www.csmcni.res.in)) for updates on logistics.