



THE NATIONAL ACADEMY OF SCIENCES, INDIA

(The Oldest Science Academy of India)



94th Annual Session and Symposium on "Accelerated R & D towards a Developed India"

***Dedicated to the Past President of the Academy
Bharat Ratna Dr. M.S. Swaminathan***

December 01-03, 2024

Hosted by

**Indian Institute of Science Education and Research (IISER)
Bhopal - 462 066**

NASI: A Brief Profile - The idea of establishing a forum for Indian scientists, which would help them on one platform to discuss and find scientific solutions to the problems of the country, was mooted by Prof. Meghnad Saha, a great scientist, visionary and the then Professor of Physics at the University of Allahabad. His views were published in an article titled 'A Plea for an Academy of Sciences' in December 1929 issue of the University of Allahabad magazine; in the very next year, The National Academy of Sciences, India was established as the first Science Academy of this country. Speaking in the inaugural session, Prof. Saha said:

“An Academy of Science can do a great deal by educating public opinion, undertaking particular problems, and bringing out scientific workers in various fields for discussion and cooperative research. But the main function of the Academy should be towards cultural improvement by contributions to human knowledge.”

NASI got the mandate of Science and Society by its Founder. Presently, the programmes are being steered by **Prof. Balram Bhargava** (former Secretary to the Gol; and presently at AIIMS, New Delhi), **President of the Academy**. The Past Presidents, namely, Prof. P. N. Tandon, Prof (Mrs.) Manju Sharma, Prof Ashok Misra, Prof Asis Datta, Prof. J. P. Mittal, Dr. K. Kasturirangan, Prof. Akhilesh K. Tyagi, Prof. Anil Kakodkar, Prof. G. Padmanaban and Prof. Ajoy K. Ghatak have been taking keen interest in the progress of Science and the Academy, in particular. The Academy was also nurtured especially by Late Prof M. G. K. Menon, Prof M. S. Swaminathan, Prof A. K. Sharma, Dr V. P. Kamboj, Prof S. K. Joshi, Prof. U. S. Srivastava and Dr V. P. Sharma - Past Presidents, and others.

NASI envisions the cultivation and promotion of Science & Technology in all its areas, including: (1) publishing two quarterly journals (Proceedings of the National Academy of Sciences, India- Section A (Physical Sciences) and Section B (Biological Sciences) and one bimonthly journal (National Academy Science Letters); (2) holding an Annual Session in a scientific and academic institution every year; (3) Organizing symposia, seminars and workshops on subjects of current national and scientific interest; (4) Planning and executing science communication programmes like Science Extension Lectures, State level Science Contests (Quiz, Debate, Oration, Exhibition, Essay, etc), Talent Search, Teachers' Workshops, Summer/Winter Schools, Vocational Training Programmes, National level Scientific Creative Writing Contest, Celebration of National Technology Day, National Science Day, National Mathematics Day and World Environment Day, etc.; (5) Recognizing the significant contributions of scientists at every level by honoring them with Fellowship/Membership/Awards such as Lecture Awards, NASI-Reliance Awards, NASISCOPUS Awards, NASI-Young Scientist Awards etc.(continued till 2022); (6) Instituting prestigious Research Fellowships/Chairs/Senior-Scientist Fellowships etc. to honor distinguished scientists; (7) Organizing sensitization programmes for women researchers/scientists all across the country; (8) Conducting the 'Safe water' project; (9) Organizing/conducting other projects and schemes, such as Nutrition Programme for eradicating malnutrition, Science Awareness Programme for adopting COVID Appropriate Behaviour, Entrepreneurship Development Programmes and a joint programmes of NASI, ICAR and ICMR; (10) Establishing River Galleries; and (11) Organizing Rural/Tribal Welfare Programmes.

Besides the above mentioned activities, the Academy also organizes several other activities jointly with other two National Science Academies- INSA and IASc all through the year. The Academy is also maintaining a well-organized library; and has 22 Chapters all across the country to organize scientific activities in and around their respective regions.

The Annual Session of (NASI) has always been a platform for the convergence of brilliant minds and the exchange of groundbreaking ideas. Each year, alongside the core events, a Symposium is organized on a contemporary topic that bridges the gap between **science and society**. In the recent past such sessions were held at Allahabad, Pune, Shillong, Ahmedabad, Jaipur, Pondicherry, Mumbai, Mysore, Chandigarh, Kolkata, Jaipur, Trivandrum, Varanasi, Goa, Jodhpur, Bhubaneswar, Dehradun, Chitrakoot, Hyderabad, Mumbai etc.

94th Annual Session of NASI and Symposium on “Accelerated R & D towards a Developed India”-

This year, the Academy is organizing a Symposium on “**Accelerated R & D towards a Developed India**”.

The realm of Research and Development (R&D) is crucial for fostering innovation, propelling economic growth, and tackling societal challenges. R&D and Innovations are considered essential for national development and prosperity. “**Accelerated R & D towards a Developed India**” is one of the major drivers of socio-economic development and it will play a major role in achieving India’s aspirations and goals.

The country, like India having vast human resources, diverse intellectual capital, and an emerging technological landscape, the ‘**Accelerated R&D towards a Developed India**’ is not just a necessity but a strategic imperative for us.

The symposium will not only provide the information on our achievements in this field but also be helpful in pinpointing the areas of future scope & exploration. During the session, following key points would be discussed:

- Quantum Research & Futuristic Applications
- Climate Resilience & Sustainability
- Cyber-security & Data Sovereignty
- Health & Disease Prevention
- Transformative Research Agenda for Indian Institutions
- Artificial Intelligence and machine learning

The Host – Indian Institute of Science Education and Research Bhopal (IISERB)

IISER Bhopal is a prestigious autonomous research institute in Bhauri, Bhopal district, Madhya Pradesh, India. It was established by the Ministry of Education (India), Government of India in 2008 (Founder Director, Padma Shree Professor Vinod K. Singh) under the category of institutes of national importance to promote quality education and research in basic sciences.

The institute incorporates research in fundamental science at undergraduate and graduate level, with equal emphasis on higher education for research and education in science. It is an autonomous institution awarding its own degrees.

More details will be available in the second Circular, to be issued by the host institute (IISERB) by the end of September, 2024.

THE NATIONAL ACADEMY OF SCIENCES, INDIA (NASI)

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18.07.2024

Dear Sir/Madam,

We are happy to inform you that the 94th Annual Session of The National Academy of Sciences, India (NASI) and Symposium on “**Accelerated R & D towards a Developed India**” will be held during December 1-3,2024 at **Indian Institute of Science Education and Research Bhopal (IISERB)- 462 066**.

On behalf of The National Academy of Sciences, India, we have great pleasure in inviting you to attend these and participate in the deliberations.

Scientific Sessions

The Scientific Sessions will be held in two sections: **Section of Physical Sciences** – Sectional President: **Prof. S Natrajan**, Professor Solid State & Structural Chemistry, IISc, Bengaluru and **Section of Biological Sciences**- Sectional President: **Prof. Ch. Srinivasa Rao**, Director, NAARM, Hyderabad.

The scientific papers are presented by the selected researchers/scientists, in the scientific sessions; for which prior submission of the Abstract(s)/Paper(s) is necessary (for details please see the sub-heading “Abstracts”, given overleaf).

All abstracts/papers submitted for presentation through the email (nasiannualsession94@gmail.com) and will be screened. Authors whose papers are accepted will be informed at the earliest. The decision of the Academy for the acceptance/rejection and also for the mode of presentation (Oral/Poster) would be final. The travel/ticket charges (AC-III, shortest route) will be reimbursed to the presenting authors, only.

Symposium

A Symposium on “**Accelerated R & D towards a Developed India**” will be held during the Annual Session. Presentation of papers in the Symposium would only be through invitation. The Convener of the Symposium is **Prof. Vinod Kumar Singh**, Padma Shri, FNA, FASc, FTWAS, Chair Professor, Dept. of Chemistry, IIT Kanpur, who is being supported by a group of NASI Fellows, Council Members and Past Presidents of the Academy.

All interested persons are invited to attend the Symposium and Scientific Sessions of Physical and Biological Sciences; however, other facilities will be available only to those who get themselves registered with the host institution as well as enroll themselves as Sessional Members. Fellows and Members of the NASI are exempted from the registration formalities.

Through the next Circular, the host institution (IISER, Bhopal) would inform about the amount and date of receipt of Registration/Accommodation fee.

Privileges

Fellows and Members of the Academy and Sessional Members are entitled to attend the Session and other activities, submit papers for presentation in the Scientific Sessions, receive copies of the Presidential Addresses, Abstracts of papers and other related material circulated during the Session.

Newly elected Fellows and Members (elected in 2024) are encouraged to attend and present their work; their local stay will be taken care of by the conference organizers.

Abstracts

The copy of abstracts of papers (not exceeding 250 words), along with copies of full length papers for presentation in the Scientific Sessions should reach the office of the Academy at 5, Lajpatrai Road, Allahabad – 211 002, India or mail to nasiannualsession94@gmail.com; **latest by September 15, 2024. An author can submit up to a maximum of three papers including papers having more than one author.**

Bonafide research scholars are required to get their research papers forwarded by the Supervisor and the Head of the Department/Institution. All papers submitted for presentation will be screened. Authors whose papers are accepted will be informed about the mode of presentation (Oral or Poster) at the earliest. The decision of the Academy would be final for the mode of presentation.

The Academy would pay, on production of original copy of railway tickets, AC-3 rail fare, by shortest route (both ways) only, to the author who would present the paper provided his/her travel has not been borne by any other agency.

Publication of Papers

In case it is desired that a paper presented at the Annual Session be considered for publication in the journals of the Academy, viz. Proceedings of the National Academy of Sciences, India/National Academy Science Letters, it must be submitted online (for details please see the website of the Academy), as per prescribed procedure of submission. These papers will undergo the usual processing and refereeing as per rules of the Academy. **Papers sent for the Session will not be automatically considered for publication in the journals of NASI.**

Signing of the Fellow's Register

The Fellows who have not signed the Fellow's register so far can sign the register in the Fellow's meeting, to be held during the 94th Annual Session.

We once again extend a very cordial invitation to you to participate in the 94th Annual Session and Symposium on "Accelerated R & D towards a Developed India" at IISER Bhopal.

Yours truly

**Prof. D S Pandey
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N.B.- In the 2nd Circular the host institution (IISER Bhopal) will inform in detail about the programme, stay arrangements & other logistics, by the end of September 2024.