



**THE
NATIONAL ACADEMY OF SCIENCES, INDIA
(NASI)**

(The Oldest Science Academy of India)



**90TH ANNUAL SESSION OF NASI AND SYMPOSIUM
ON
TOWARDS A NEW HEALTHCARE REGIME FOR THE NATION
(SPECIAL REFERENCE TO ODISHA)**

ON

**DECEMBER 6-8, 2020
(TENTATIVE)**

AT

**RAVENSHAW UNIVERSITY
CUTTACK, (ODISHA)**

NASI: A Brief Profile - The idea of establishing a forum for Indian scientists, which would help them in publishing their researches and bringing 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.”

Therefore, NASI got the mandate of Science and Society by its Founder. Presently, the programmes are being steered by **Prof. G. Padmanaban**, President of the Academy, and former Director, Indian Institute of Science, Bangalore. The Past Presidents, namely **Prof M. S. Swaminathan**, **Prof. P. N. Tandon**, **Prof (Mrs.) Manju Sharma**, **Prof Ashok Misra**, **Prof Asis Datta**, **Prof. J. P. Mittal**, **Dr V. P. Kamboj**, **Dr. K. Kasturirangan**, **Prof. Akhilesh K. Tyagi** and **Prof. Anil Kakodkar** have been taking keen interest in the development of Science in general and the Academy, in particular. The Academy was also nurtured by **Late Prof M. G. K. Menon**, **Prof A. K. Sharma**, **Prof S. K. Joshi** and **Dr V. P. Sharma**- Past Presidents, NASI.

NASI envisions the cultivation and promotion of Science & Technology in all its branches. Such as: (1) publishing two quarterly journals (Proceedings of the National Academy of Sciences, India- Section A (Physical Sciences) and Section B (Biological Sciences) and one bi-monthly 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, NASI-SCOPUS Awards, NASI-Young Scientist Awards etc.; (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 Army Personnel, Entrepreneurship Development Programmes and a joint programme of NASI & ICAR on Farm Mechanization/ Implementation, etc.; (10) establishing River Galleries; and (11) organizing Tribal Welfare Programmes.

Besides the fore-mentioned activities, the Academy also organizes several other activities jointly with other two National Science Academies- INSA and IASc- all through the year. Since the year 2000, the annual sessions have been held at places such as Allahabad, Pune, Shillong, Ahmedabad, Jaipur, Pondicherry, Mumbai, Mysore, Chandigarh, Kolkata, Jaipur, Trivandrum, Varanasi, Goa, Jodhpur, Bhubaneswar, Dehradun, Pune, Chitrakoot and Hyderabad. These annual sessions provide a platform for the scientists across the country to interact, present their papers and exchange expertise with each other. The Academy is also maintaining a well-organized library; and it has 21 Chapters all across the country to organize scientific activities in and around their respective regions.

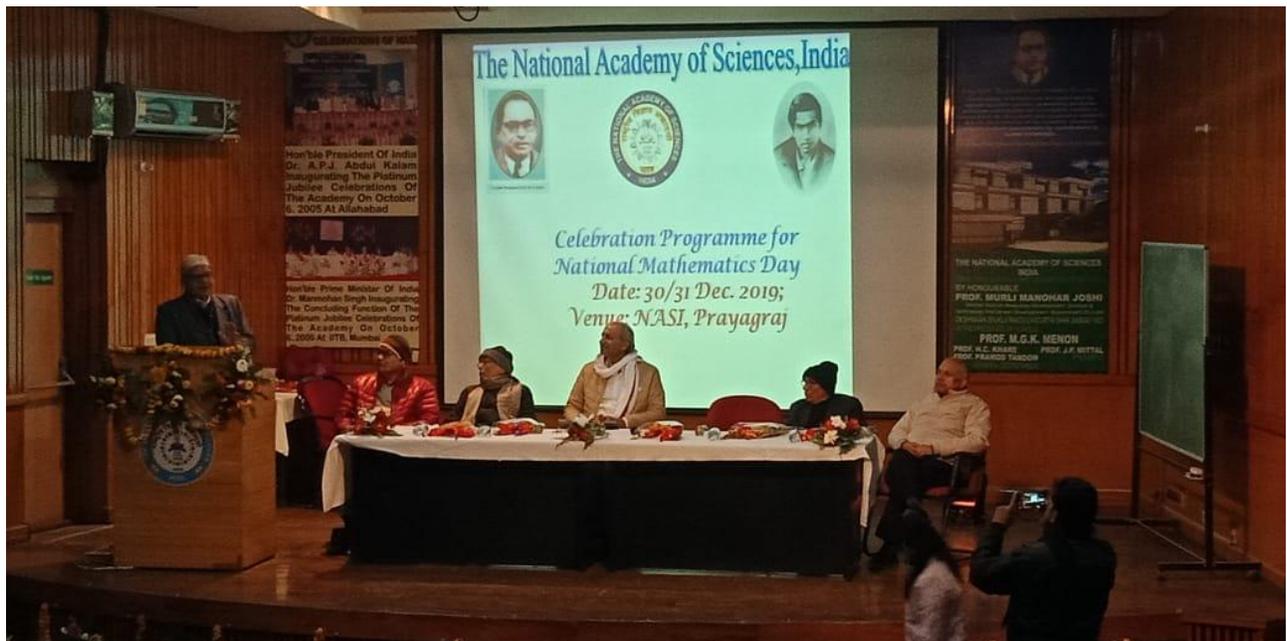
A Few Photographs of the NASI-Activities, held in recent past



(Nov.) L-Prof MGK Menon Memorial Award given to Prof CNR Rao; and R-Prof Vikram Sarabhai Birth Centenary Celebration



(Dec.) A view of the 89th Annual Session of NASI, and the Symposium on Entrepreneurship Development



(December 2019) Celebration Programme of National Mathematics Day

Symposium on 'Towards a New Healthcare regime for the Nation'

Health care regime broadly describes the organized and systematic actions taken by the policy makers or the governments - national, state, and local to advance the public's health. It is not a single action but requires a range of medical, legislative and regulatory efforts ranging from ensuring air and water quality to supporting cancer research. Earlier Health care policies of India (1983, 2002 and 2017) were broadly focused on the growing burden of non-communicable diseases, emergence of the robust healthcare industry and growing incidences of unsustainable expenditure due to health care costs.

But in the era of pandemics like COVID-19, Ebola, swine flu and so, the operation and maintenance of health care system has become precarious. Considering the goal of obtaining universal health care as part of Sustainable Development Goals, we need subsidized healthcare. A government-funded health insurance project was launched in 2018 by the Government of India, called Ayushman Bharat Pradhan Mantri Jan Arogya Yojana, a part of the Indian government's National Health Policy. But there are many impediments. There are 14 million doctors in India; yet, India has to reach its [Millennium Development Goals](#) related to health. The definition of health care access is the ability to receive services of a certain quality at a specific cost and convenience.

Further, the type of emergence of the pandemics, the need of rapid care medical facilities, awareness programmes against the 'Big-bugs', and excessive use of antibiotics, growing menace of obesity, diabetes and cardio-vascular diseases in India, are other causes of deep concern for the health care takers and policy makers. Therefore, all these issues must be discussed in the light of our developing expertise, skill and industrious capacity; so that a comprehensive and integrative approach could be developed to combat the rapid growing diseases and reduce the burden of diseased India.

The Convener of the symposium, **Dr Manju Sharma**, Past President, NASI, and former Secretary to the Gol, has developed a compact programme incorporating almost all the essential points for discussion; and eminent medical scientists/technocrats/entrepreneurs having experience of working for the medical science and technology, have given their kind consent to make it a fruitful brain storming. The focus of the symposium will be to discuss and deliberate on all the issues of major concern, as **Emerging Viral Infections, Basic Research in the area of medical science, COVID-19 Pandemic Scenario-Research, Prevention and Control, Epidemiology of CORONA Virus, Pulmonary diseases, Diabetes, Cancer, Mental Health, Diagnostics, New Medical Devices, Stem Cell Research, Gene Therapy, Ayurveda Innovations**, and so on.

Prof. G. Padmanaban, President, NASI has also taken keen interest to ensure the involvement of the expertise from all relevant areas directly concerned with the aim & objective of this symposium; and **Prof. I.K. Patro**, **Vice-Chancellor, Ravenshaw University, Cuttack (Odisha)** as well as **Dr Ajay Parida**, **Chairman, NASI-Odisha Chapter** are extending the necessary support to make the event successful.

THE NATIONAL ACADEMY OF SCIENCES, INDIA (NASI)

Prof. Satya Deo

Ph.D.(Arkansas, USA), FNASc.

Prof. Paramjit Khurana

Ph.D., FNASc., FASc., FNA., FNAAS., FTWAS.

General Secretaries

5, Lajpatrai Road,
Prayagraj – 211 002, India

31.07.2020

Dear Sir/Madam,

We are happy to inform you that the **90th Annual Session of the National Academy of Sciences, India** and Symposium on '**Towards a New Healthcare regime for the Nation**' will be held during **December 6-8, 2020** at **Ravenshaw University, Cuttack (Odisha)**.

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

Scientific Sessions

The Scientific Sessions will be held in two sections: Section of Physical Sciences- **Sectional President Prof. Sanghamitra Bandyopadhyay**, Director, Indian Statistical Institute, 203, B.T. Road, Kolkata - 700108; and Section of Biological Sciences- **Sectional President Dr. Smita Dilip Mahale**, Scientist G & Director, National Institute for Research in Reproductive Health, Jehangir Merwanji Street, Parel, Mumbai - 400012.

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

The National Academy of Sciences, India- **Swarna Jayanti Puruskars**, each comprising Rs.5000/= and a citation, will be awarded to young scientists (below the age of 35 years as on 1.1.2021) presenting the best research paper(s) in the Sections of Physical and Biological Sciences. Another prestigious award, '**NASI-Springer Young Scientist Award**' has also been started from the year 2015, for the young bright researchers and is given as per the norms of NASI and Springer.

Symposium

A Symposium on '**Towards a New Healthcare regime for the Nation**', 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. (Mrs.) Manju Sharma**, NASI Distinguished Woman Scientist Chair & former Secretary to the Govt. of India, DBT, New Delhi.

All interested persons are invited to attend the Symposium and Scientific Sessions of Physical and Biological Sciences; however, the facilities will be available only to those who get themselves registered with the host institution and enroll themselves as **Sessional Members**. *Fellows and Members of NASI are exempted from paying the registration fee as well as the sessional membership fee;* for all others, the sessional membership fee is Rs.50/- (for scientists and stipendiary researchers) or Rs.30/- (for non-stipendiary researchers).

The sessional membership fee should be sent to the **Executive Secretary**, The National Academy of Sciences, India by a Bank Draft or Account Payee Local/Multicity Cheque drawn in favour of '**The National Academy of Sciences, India**'. (Payment in Cash/I.P.O/Money Order/Outstation Cheque will not be accepted).

Through the next Circular, the host institutions (Ravenshaw University, Cuttack, Odisha) would inform about the last date of registration and the amount of accommodation fees etc.

Privileges

Fellows and Members of the Academy and Sessional Members are entitled to attend the Session and other activities, submit papers for presentation in scientific sessions, receive copies of the Presidential Addresses, Abstracts of papers and other related material circulated during the Session. They will be entitled to rail travel at concessional rates as per rules. Those desiring to obtain Railway concession should write to the Executive Secretary, NASI, referring the nature of their membership.

Abstracts in the Scientific Sessions

The abstract(s) of paper(s) (not exceeding 250 words), along with one copy of the full-length paper for presentation in the scientific session should reach the Office of the Academy at 5, Lajpatrai Road, Prayagraj - 211 002, India, latest by October 30, 2020. An author can submit up to a maximum of three papers, including papers having more than one author.

The advance copy of the abstract may also be sent by email to - nasi.allahabad1@gmail.com

Bonafide research scholars are required to get their abstract(s)/research paper(s) forwarded by the Supervisor and/or the Head of the Department/Institution. All abstracts/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 for the acceptance/rejection and also for the mode of presentation would be final.

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

Publication of full length 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- Part A (Physical Sciences) or Part B (Biological Sciences)/National Academy Science Letters, it must be submitted on line as per the prescribed procedure of submission. (For details please see the website of the Academy). These manuscripts 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 Fellows' Register

The Fellows who have not signed the Fellows' register so far, can sign the register in the Fellows' meeting, to be held during the 90th Annual Session.

We once again extend a very cordial invitation to you to participate in the 90th Annual Session of the National Academy of Sciences, India and Symposium on '*Towards a New Healthcare regime for the Nation*', to be held during December 6-8, 2020 at Ravenshaw University, Cuttack, Odisha.

Yours truly

Sd/ Satya Deo
Sd/ Paramjit Khurana
General Secretaries, NASI, Prayagraj

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The host city: Twin cities - Cuttack and Bhubaneswar

The name *Cuttack* is derived from Sanskrit meaning capital, fort and military establishment or a cantonment. The city was known as Bidanasi Katak (meaning Bidanasi Military Base) during the days when **Barabati Fort** was in existence. Bidanasi is now one of the localities of the city. Cuttack is located in the eastern Indian state of Odisha. It's on a peninsula flanked by the Mahanadi River to the north and the Kathajodi River to the south. The ruins of moated Barabati Fort, once home to the Eastern Ganga dynasty, show the city's medieval significance. Within the fort's walls lies the Shahi Mosque, with its 3 white domes. Nearby, Maa Cuttack Chandi Temple is a pilgrimage site for Hindu devotees. Cuttack and **Bhubaneswar** are often referred to as the Twin-Cities of **Odisha**. The metropolitan area formed by the two cities has a population of 1.862 million in 2018. Bhubaneswar replaced **Cuttack** as the capital on 19 August 1949, 2 years after **India** gained its **independence** from Britain. The modern city was designed by the German architect **Otto Königsberger** in 1946. Along with **Jamshedpur** and **Chandigarh**, it was one of modern India's first planned cities.



The host institution: Ravenshaw University

After the great famine of 1866, the people of Odisha and some liberal Britons wanted to start a college at Cuttack. Thomas Edward Ravenshaw, officiating commissioner of Odisha Division made the government of Bengal realise the difficulties of Oriya students in getting college educations and succeeded in obtaining permission to start collegiate classes in the Cuttack Zilla School. Thus the first college in Odisha was born in January 1868; the institution became a university in 2006. The university has nine schools, thirty three academic departments and a student enrolment of nearly 10,000. It is one of the oldest educational institutes in the country and its history is synonymous with the history of modern Odisha.



(Ravenshaw University Campus, Cuttack, Odisha 753003)