



NATIONAL CONFERENCE

**Celebrating the vision, mission and persona of
Prof. M.N. Saha as Physicist and a Nationalist**

October 27-28, 2022

**Motilal Nehru National
Institute of Technology
Allahabad, Prayagraj**

**For more details
<https://mns.iiita.ac.in>**



Invitation

On the occasion of the birth anniversary of Prof. M. N. Saha (FRS), a National Conference on ***“Celebrating the Vision, Mission, and Persona of Prof. M. N. Saha as a Physicist and Nationalist”***. will be organized at Motilal Nehru National Institute of Technology (MNNIT), Prayagraj during 27-28 October 2022 with support from the Ministry of Culture, Govt. of India. Nearly **300** participants are expected to attend the conference physically and about **100,000** people will participate through various Social Media Platforms viz. Youtube, Facebook, etc. Reputed persons concerned with different fields including science, government stakeholders like administrative officials and state officers, and persons of national repute shall be requested to float the link from their social accounts so that a large number of people could be addressed.

Inauguration and scientific deliberations of the National Conference will feature Key Lectures, followed by Invited Lectures by delegates and other programs like an Exhibition, Poster/ Model competition, Essay/ Blog writing, and Nukkad Natak from subthemes.

About the Conference

As India celebrates the **AmritMahotsav** of its Independence, the Prime Minister's direct exhortation for ***“Jai Anusandhan”*** from the ramparts of Red Fort outlines new developmental dynamics for the nation. Modern India undoubtedly is the epitome of Scientific and Technological Development and is one of the key elements for economic growth. The scientific leaders at the time of Independence were sincerely aware that ***“Science could neither be borrowed nor bought”*** and developing scientific abilities and the outlook was the answer to several societal problems. Prof. Meghnad Saha's words are now resonating across the entire nation, ***“Science and Technology are as important for administration as law and order.”***

Prof. Saha was a renowned Indian Physicist who holds a unique place in the history of Astrophysics and modern science. Through Prof. Saha's epoch-making, ***“Thermal Ionization Theory”***, which explained the origin of stellar spectra, India significantly contributed to world science during the 20th Century. It was marked as the twelfth most important landmark in the history of astronomy. Saha's transition from a Scientist to a Nationalist was a remarkable process. Science for the nation and for national liberation was major motivations for him. Throughout his life. He is also known to be a great institution builder; some of the institutes he

founded are the Indian Science News Association at Calcutta, the National Academy of Sciences, India at Allahabad, and the Indian Physical Society, Kolkata. He was also an active member of the National Planning Committee constituted by the Indian National Congress in 1938.

The life of Prof. Saha was an integral part of the growth of scientific research and progress in India. The stage of this conference is, therefore, dedicated to revisit his vision, mission, and persona that would be felt in the coming time in every aspect of nation-building.

The International Conference, to be held at the University of Allahabad, is expected to be one of the largest gatherings of scientists and researchers in India, with participants discussing and debating the Vision, Mission, and Persona of Prof. MeghnadSaha as a Physicist and Nationalist. Aligned with the 129th birth anniversary of MeghnadSaha, who was born on October 6, 1893, the conference is dedicated to him to celebrate his immense contributions. The conference will discuss his role as a physicist, teacher, nationalist, industrialist, and philanthropist. Professor Saha is a role model for the scientific community, serving as a source of inspiration and guidance for the next generation.

The Organizing Partners

- VijnanaBharati(VIBHA)
- Indian Institute of Information Technology Allahabad (IIITA), Prayagraj
- Motilal Nehru National Institute of Technology (MNNIT), Prayagraj
- Faculty of Science, University of Allahabad, Prayagraj
- National Academy of Sciences (NASI), Prayagraj
- VigyanParishad, Prayagraj

Events

Exhibition

During each event, it is proposed to have a thematic exhibition showcasing the life and works of the scientists and their contributions to the freedom struggle of India. It will exhibit the posters, banners, charts etc. explaining the various aspects of the freedom struggle as well. The exhibit panels are proposed to be bilingual in nature (Hindi and English). It is also proposed to develop the content in the regional languages of India.

Puppet Show

The puppet show will be presented to the general public to introduce the life of the great Indian scientist Meghnad Saha ji and the various scientific researches done by him, making the mysterious world of astronomy simple and understandable.

Presenters: Dr. Vikas Mishra, Dr. DP Singh and Mrs. Pooja Virmani.

(Indian Science Communication Society, Lucknow)

Nukkad Natak

Street plays/Nukkad Natak creates social awareness about the current or the burning topics in our society. Its primary goal shall be spreading a social message to a large group of people. The program will be designed at the outlay of topics which include, Science and Struggle for Indian Independence, Life and achievements of Professor Meghnad Saha as Scientist, Socialist, his association with his contemporaries, his role as a freedom fighter during India's independence movement. The Nukkad Natak is proposed to be bilingual in nature (Hindi and English). It is also proposed to develop the content in the regional languages of India. The plays shall be evaluated by the organizers on different parameters and the awarded Nukkad Natak shall be allowed to be enacted on-stage during the birth anniversary celebrations at venue of the conference.

Sky Watching

It is also proposed to organize night sky darshan program by the Council of Science and Technology. In which observation of Saturn, Jupiter, Mars and Moon will be done through telescope. The rings of Saturn, the Galilean moon of Jupiter, and various craters, marias, mountains of the moon can be observed by the general public. This program will be conducted by the Uttar Pradesh Amateur Astronomers Club, run by the Indira Gandhi Constellation Council of Science and Technology Council.

Competitions Scheduled

- Poster Making
- Model Presentation
- Essays Writing
- Blog Writing

About Organizers

Vigyan Bharti (VIBHA)

Prayagraj is an integral part of Kashi Prant of Vigyan Bharati (VIBHA), which is a science movement with swadeshi spirit lead by eminent Indian scientists of Bharata. It was started as Swadeshi Science Movement under the guidance of Prof. K. I. Vasu at Indian Institute of Sciences, Bengaluru. In 1991 it was decided, to launch the Swadeshi Science Movement at all India level with the name, Vijnana Bharati (VIBHA).

The founding principles of VIBHA are:

- To establish a vibrant movement for the development of Swadeshi Sciences;
- As a dynamic Science Movement with a Swadeshi Spirit, interlinking traditional and modern sciences on the one hand, and natural and spiritual sciences on the other hand;
- As a Swadeshi Movement with modern sciences adapted to national needs.

Vijnana Bharati has units in all states across the country. It is working in 12 different areas through autonomous institutions, independent organizations & also as project entities.

University of Allahabad, Prayagraj

The University of Allahabad is a collegiate Central University located in Prayagraj, Uttar Pradesh, India. It was established on 23 September 1887 by an act of Parliament and is recognized as an Institute of National Importance (INI). It is one of the oldest modern Universities in India. Its origins lie in the Muir Central College, named after Lt. Governor of North-Western Provinces Sir William Muir in 1876, who suggested the idea of a Central University at Allahabad, which later evolved to the present university. It was known as the "Oxford of the East". Its Central University status was re-established through the University of Allahabad Act 2005 by the Parliament of India. The campus is spread around the city of Prayagraj across the area of Old Khatra and Bank Road. It consists of major five faculties, namely

Science, Arts, commerce, law, and management faculties with the arts faculty housing the Administrative Block of Chatham Lines. It has numerous residential hostels for students.

Association of Prof. Meghnad Saha with University of Allahabad

Saha returned from Europe in 1921 and joined the University of Calcutta as Khaira Professor of Physics, a new chair created from the endowment of Kumar GuruprasadSingh of Khaira. He then left Calcutta in 1923 to take up the appointment of Professor and Head of the Physics Department in the University of Allahabad. He held this appointment for 15 years till 1938. At Allahabad he gave a large part of his time to teaching. He regularly lectured to undergraduate and postgraduate classes. His lectures were systematically and carefully prepared, and a very large part of what he spoke, he wrote on the blackboard in his characteristically clear and bold handwriting. He made copious use of lantern slides. He initiated and organized research in several subjects, such as statistical mechanics, atomic and molecular spectroscopy, experiments on thermal ionization and 'electron affinity' of electronegative elements, active modification of nitrogen, high-temperature dissociation of molecules, and ionospheric propagation of radio waves and physics of the upper atmosphere.

Within less than a decade of Saha's arrival the Physics Department of the Allahabad University became one of the most active centres of research in the country, particularly in the field of spectroscopy. Amongst his earliest associates in research mention may be made of P. K. Kichlu (Professor of Physics in the Delhi University), K. Majumdar and N. K. Sur. The Department attracted students from all over India. R. C. Majumdar, now Professor of Physics in the Delhi University, S. Basu, the present Director-General of the Department of Meteorology, and D. S. Kothari were Saha's students at Allahabad. It was in 1927 that at the age of thirty-four Saha was elected to the Royal Society. The United Provinces Government sanctioned a personal annual grant of Rs. 5000 for his research work. He became Fellow of the Royal Society in 1927. He also chaired the 21st session of the Indian Science Congress in 1934 as the President.

National Academy of Sciences (NASI), Prayagraj

The 1st World War and the world-wide economic depression caused a setback to scientific research globally - much more so in India whose scientists found it difficult even to publish their research work since they had to be almost entirely dependent on foreign journals. The post World War India also saw the rise of the freedom movement which incidentally also drew attention to the numerous problems of the Indian people like poverty, hunger, diseases, recurrent floods, droughts, famines etc. Patriotic scientists felt deeply concerned with these.

It was in this background that the idea of establishing a forum for scientists, which would bring them together to discuss and find scientific solutions to the problems of the country, was mooted in 1929 by Prof. MeghnadSaha, a great scientist, patriot and then Professor of Physics at Allahabad University. His views were published in December 1929 issue of the Allahabad University magazine in an article entitled 'A Plea for an Academy of Sciences'.

Thus, the National Academy of Sciences, India (initially called “The Academy of Sciences of United Provinces of Agra and Oudh”) was founded in the year 1930, with the objectives to provide a national forum for the publication of research work carried out by Indian scientists and to provide opportunities for exchange of views among them. The Memorandum of Association was signed by seven distinguished and patriotic scientists namely Prof. MeghnadSaha, Prof. K.N. Bahl, Prof. D.R. Bhattacharya, Prof. P.C. MacMohan, Prof. A.C. Banerji, Prof. Ch. Wali Mohammad and Prof. N.R. Dhar. Of these, the Academy had the good fortune of having the continued association of Prof. N.R. Dhar until very lately when he expired on December 5, 1986 at the age of 96 years. Apart from being one of the founders of the Academy and taking continued interest in its welfare, Prof. Dhar also donated the piece of land on which the Academy building stands today.

The Rules and Regulations of the Academy were based on those of the Royal Society of England and the Asiatic Society of Bengal. These have since been revised and updated to meet the emerging challenges. ***Prof. MeghnadSaha was elected its first President.*** In the Inaugural address, Prof. SahaSaid : “.....But the main function of the Academy should be towards cultural improvement by contribution to human knowledge”. Since then, the Academy has crossed many milestones, successfully serving the “Science & Society”. In its Silver Jubilee Session in 1955,

Prof. Saha, further emphasized the role of the Academies in developing human scientific resources.

Indian Institute of Information and Technology Allahabad (IIITA), Prayagraj

The Indian Institute of Information Technology Allahabad (IIIT-A) was established in 1999, as a center of excellence in Information Technology (IT) and allied areas. The institute was conferred the "Deemed University" status by the Government of India in the year 2000. It was declared as an "Institute of National Importance" by the Act of the Parliament, Govt. of India in 2014. The Institute has been conceived with the objective of developing professional expertise and skilled manpower in IT and areas of allied research. As an apex institute in the area of IT, IIIT-A has been contributing towards strengthening the indigenous capability necessary for exploiting profitably and harnessing multi-dimensional facets of IT and allied areas at all levels, and attaining expertise to enable the country to emerge as a leading player in the global arena.

The beautiful 100-acre campus, situated at Deoghat, Jhalwa, designed meticulously on the Penrose Geometry pattern, is being further topped by fine landscaping to give an all round soothing effect to create a stimulating environment. The campus is envisaged to be a fully residential one, with all its faculty, staff, and students housed in different pockets. All academic and residential areas are connected to the Institute network. The campus is envisaged to be a fully residential one, with all its faculty, staff and students housed in different pockets. All academic and residential areas are connected to the Institute network.

Motilal Nehru National Institute of Technology Allahabad (MNNIT), Prayagraj

Motilal Nehru National Institute of Technology, Prayagraj (MNNIT) is an Institute with total commitment to quality and excellence in academic pursuits. It was established as one of the seventeen Regional Engineering Colleges of India in the year 1961 as a joint enterprise of Government of India and Government of Uttar Pradesh, and was an associated college of University of Allahabad, which is the third oldest university in India.

For a short duration of two years (2000-2002), the Institute was affiliated to U.P. Technical University. With over 45 years of experience and achievements in the field of technical education, having traversed a long way, on June 26, 2002 MNREC was transformed into National Institute of Technology and Deemed University fully funded by Government of India. With the enactment of National Institutes of Technology Act-2007(29 to 2007), the Institute has been granted the status of institution of national importance w.e.f. 15.08.2007.

In the year 1972, the Institute initiated a self employment project and established an industrial estate with 68 sheds with the objective of encouraging entrepreneurs and creating additional employment avenues. The Institute was selected as a lead institution in the Design theme under Indo-UK REC Project (1994-99). Under this scheme a Design Centre was established. The Institute has been selected as a Lead Institution under World Bank funded Government of India Project on Technical Education Quality Improvement Programme (TEQIP) (2002-2007). Two state level institutions are networked with MNNIT under the project

Vigyan Parishad, Prayagraj

The Vigyan Parishad is located in Prayagraj, Allahabad and is one of the oldest institutions in India working in the field of science mass globalization. The Vigyan Parishad was established in 1913 AD and the main purpose of its establishment was to spread scientific ideology in India. A monthly magazine called Vigyan is also published from this institution, which has been working continuously since 1913 in this direction. This magazine was first published in April 1915 and since then it has a record of being published continuously till date.

The main areas of the Science Council are as follows:

- Creating scientific literature in Indian languages
- Spread of scientific ideology
- Promotion of scientific studies and scientific research work
- Discussions and consultations regarding the scientific problems of the country

The foundation stone of the main building of the Vigyan Parishad was laid on April 4, 1956 by the then Prime Minister of India, Pandit Jawaharlal Nehru. At present, the Chairman of the Science Council is Dr. Shivgopal Mishra.

Sub-Themes

- ❖ The challenges of nation building through the perspective of Prof. MeghnadSaha.
- ❖ Prof. Saha's patriotic reforms of Indian culture, society and industrialization.
- ❖ One Nation-One Calendar: Prof. Saha's Contribution in reforming the Indian Calendar.
- ❖ New horizons in Astrophysics: A dream for independence India by Professor MeghnadSaha, FRS.
- ❖ Life and achievements of Professor MeghnadSaha as Scientist, patriot and his association with his contemporaries.
- ❖ Prof. M. N. Saha: The Institution builder for the dissemination of Science across the Society.
- ❖ Influence of Life and Vision of Prof. M. N. Saha's on NEP 2020.

Salient Features

- ❖ Keynote Address.
- ❖ Plenary Talks.
- ❖ Exhibition on Role of Scientists in India's Independence Movement.
- ❖ Exhibition on Indian National Calendar and Calendar systems.
- ❖ NukkadNatak/Street plays for social awareness; the topics include Science and Struggle for Indian Independence, Life and achievements of Professor MeghnadSaha as Scientist, Nationalist and his association with his contemporaries.
- ❖ Puppet Show and Sky Watching.
- ❖ Poster/Model Presentation Competition on mentioned subthemes.
- ❖ Essay/ Blog writing Competition.
- ❖ Cultural Events.
- ❖ Cash prizes and attractive academic gifts
- ❖ Conference is open for students of all subjects.

Core Organizing Team

- Dr. Akhilesh Tiwari, Associate Professor, IIITA Prayagraj
- Dr. Animesh Ojha, Associate Professor, MNNIT Prayagraj
- Dr. Anubhav Rawat, Assistant Professor, MNNIT Prayagraj
- Dr. Ashutosh Singh, Assistant Professor, IIITA Prayagraj
- Dr. Krishna Pratap Singh, Associate Professor, IIITA Prayagraj
- Dr. Neetesh Purohit, Professor and Dean(Academics), IIITA Prayagraj
- Dr. Neeraj Srivastav, Executive Secretary, NASI Prayagraj
- Dr. Ravi Prakash Tewari, Professor and Dean, MNNIT Prayagraj
- Dr. Rohit Kumar Mishra, Associate Professor, UoA Prayagraj
- Shri Shreyansh Mandloi, Prant Sangthan Mantri, VIBHA Kashi Prant and Avadh Prant

Advisory Board

- Dr. Arvind C Ranade, Executive Director, Indian National Science Academy (INSA), New Delhi
- Dr. N.P. Shukla, Former Chairman Madhya Pradesh Pollution Board (MPPCB), Bhopal
- Dr. Somdev Bharadwaj, Vijnana Bharati Kashi Prant
- Dr. U. C. Srivastava, National Academy of Sciences (NASI), Prayagraj
- Mrs Priyanka Chandra, Ministry of Culture, Govt. of India
- Mr Shriyanka Basu, Ministry of Culture, Govt. of India
- Padam Bhushan Dr. Vijay P. Bhatkar Chancellor of Nalanda University & Former Chairman of Vijnana Bharati
- Prof. Anupam Dikshit, President, Vigyan Bharti Kashi Prant
- Prof. Jayant Tripathi, Earth and Planetary Sciences, University of Allahabad, Prayagraj
- Prof. K. N. Uttam, Dept. of Physics, University of Allahabad, Prayagraj
- Prof. N.K. Shukla, Registrar, University of Allahabad, Prayagraj
- Prof. Shekhar C. Mande, Ex Director General, Council of Scientific and Industrial Research (CSIR)
- Prof. Shekhar Srivastava, Dean, Science Faculty, University of Allahabad, Prayagraj
- Prof. Vivek Tiwari, Head, Dept. of Physics, University of Allahabad, Prayagraj
- Shri Praveen Ramdas, Secretary, Vijnana Bharati

Coordinators

- Dr. Alok Yadav, Forest Research Centre for Eco-Rehabilitation Prayagraj
- Dr. Amit Pandey, Arya Kanya Degree College, Prayagraj
- Dr. Anand Shankar Singh, Iswar Sharan Degree College, Prayagraj
- Dr. Archana Pandey, CMP Degree College, University of Allahabad, Prayagraj
- Dr. Arpana Pandey, University of Allahabad, Prayagraj
- Dr. Ashish Maurya, Motilal Nehru National Institute of Technology (MNNIT), Prayagraj
- Dr. Ashutosh Kumar Shukla, ECC, Prayagraj
- Dr. Atul Kumar Singh, Allahabad Degree College, Prayagraj
- Dr. Deepika Singh, Indian Institute of Information Technology (IIIT), Prayagraj
- Dr. Dheeraj, Iswar Sharan Degree College, Prayagraj
- Dr. Dev Vrat Dwivedi, Vigyan Parisad, Prayagraj
- Dr. Dharmendra Duriya, Iswar Sharan Degree College, Prayagraj
- Dr. Ena Gupta, University of Allahabad, Prayagraj
- Dr. G. S. Shukla, Rajashi Tandon Open University, Prayagraj
- Dr. Hemlata Pant, CMP Degree College, University of Allahabad, Prayagraj
- Dr. Jyoti Baskar, Mahakaushal University
- Dr. Jyoti Verma, CMP Degree College, University of Allahabad, Prayagraj
- Dr. K.K. Tripathi, Allahabad Degree College, Prayagraj
- Dr. Kumud Dubey, Forest Research Centre for Eco-Rehabilitation Prayagraj
- Dr. Monisha Singh, University of Allahabad, Prayagraj
- Dr. Nilema Singh, S.S. Khanna Degree College, Prayagraj
- Dr. Nilesh Kuamr Rai, CMP Degree College, University of Allahabad, Prayagraj
- Dr. Neetu Mishra, University of Allahabad, Prayagraj
- Dr. Pavitra Tandon, National Academy of Sciences NASI, Prayagraj
- Dr. Piyush Mishra, University of Allahabad, Prayagraj
- Dr. Poonam Jha, Iswar Sharan Degree College, Prayagraj
- Dr. Poorendu Mishra, CMP Degree College, University of Allahabad, Prayagraj
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- Dr. Rupali Vigyan Parisad, Prayagraj
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- Dr. Santosh Kumar Shukla, National Academy of Sciences NASI, Prayagraj
- Dr. Satish, IEEE, UP Section India
- Dr. Satish Kumar, Motilal Nehru National Institute of Technology (MNNIT), Prayagraj
- Dr. Satyandra SUATS, Naini, Prayagraj
- Dr. Shailendra Mishra, Medical Officer, MNNIT, Prayagraj
- Dr. Shalini Dikshit, Principal Kendriya Vidhyalaya, Bamrauli, Prayagraj
- Dr. Shashi Kant Shukla, University of Allahabad, Prayagraj
- Dr. Shashi Kant Tripathi, Kulbhaskar Degree College, Prayagraj
- Dr. Shishir Somvanshi, Forest Research Centre for Eco-Rehabilitation Prayagraj
- Dr. Shivesh Sharma, Motilal Nehru National Institute of Technology (MNNIT), Prayagraj
- Dr. Umesh Pratap Singh, ECC, Prayagraj
- Dr. Vani Mishra, University of Allahabad, Prayagraj
- Dr. Vibhav Prakash Singh, Motilal Nehru National Institute of Technology (MNNIT), Prayagraj
- Dr. Vivek Agrahari, Iswar Sharan Degree College, Prayagraj
- Prof. Ajay Prakash Khare, CMP Degree College, University of Allahabad, Prayagraj
- Shri Udit Narayan Shukla, Sanjivani Prayagraj

Important Information

- ❖ Registration is mandatory of all the participants and accompanying person.
- ❖ Accommodation will be provided to all the shortlisted participants and accompanying person.
- ❖ Travel support will also be provided to distinguish and eminent speakers.

Fee Details

Category	In INR
a) School Students	NIL
b) Students: UG & PG	NIL
c) Ph. D. & PDF	NIL
d) Faculty Members & Others	Rs. 200



Registration Link

Contact address

Conference Secretariat, MNNIT, Prayagraj

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