



Issue No. 07 | June 2022

अणुविद्या

HBNI NEWSLETTER

होमी भाभा राष्ट्रीय संस्थान

Homi Bhabha National Institute

(परमाणु ऊर्जा विभाग की सहायता प्राप्त संस्था और यूजीसी अधिनियम 1956 की धारा 3 के तहत विश्वविद्यालय माना जाता है)

(An Aided Institution of the Department of Atomic Energy and a Deemed-to-be University Under Section 3 of the UGC Act. 1956)

Events at Central Office

Republic Day Celebration

The 73rd Republic Day was celebrated at HBNI on January 26, 2022 adhering to all protocols due to Covid-19 pandemic. Prof. P. D. Naik, Dean, HBNI unfurled the National Flag followed by singing of National Anthem by HBNI functionaries and staff present on the occasion. In his address to the staff, Prof. Naik presented a glimpse of the HBNI achievements and also talked about the important initiatives taken by the institute for implementation of National Educational Policy-2020. The important among them is HBNI-Industrial linkage policy which will enable students to have a taste of industrial research through collaboration and internship schemes.

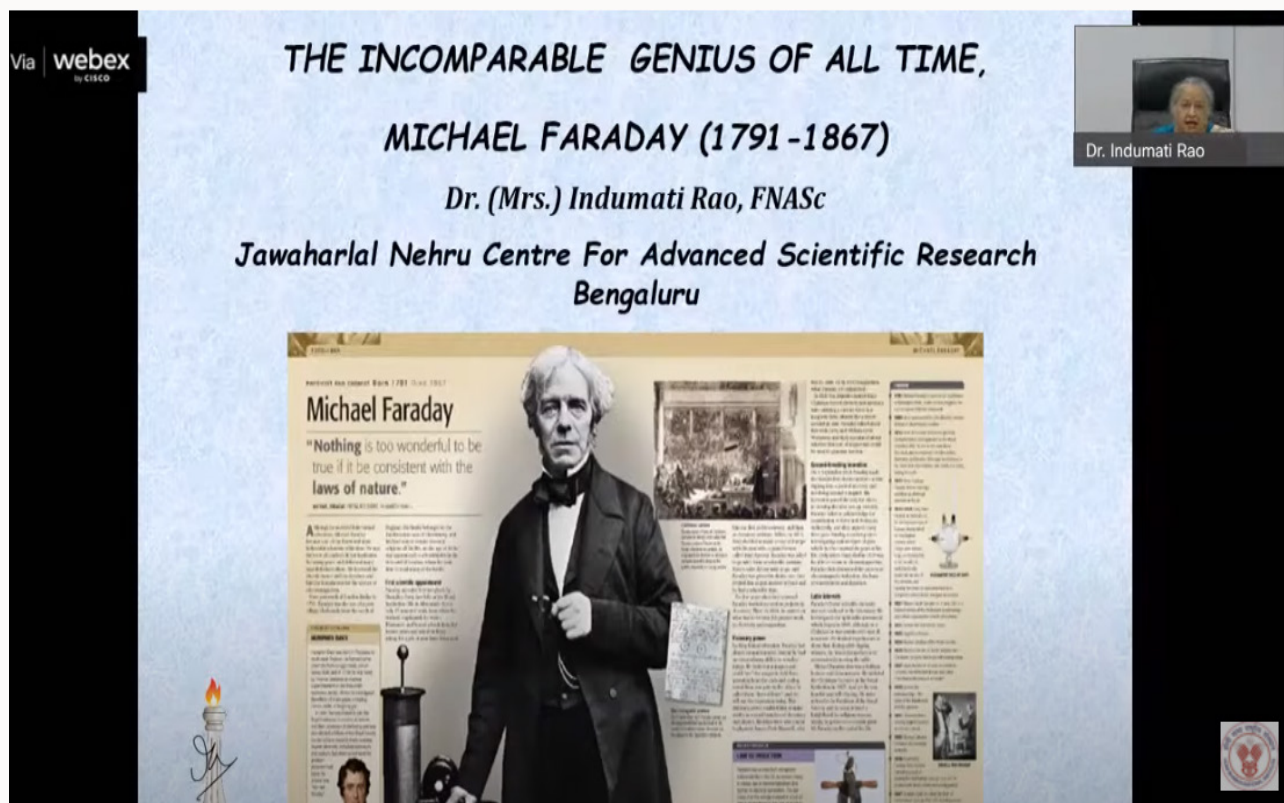


Prof. P. D. Naik, Dean HBNI saluting the National Flag after unfurling it

National Science Day Celebration

“National Science Day” is celebrated in India to commemorate the discovery of the Raman effect by Sir C. V. Raman on February 28, 1928, for which he was awarded the Nobel Prize in Physics in 1930. HBNI celebrated National Science Day on February 28, 2022 by organizing a webinar by Prof. (Mrs.) Indumati Rao, FNASc, Educational Technology Unit, JNCASR on the topic, “The Incomparable Genius of All Time, Michael Faraday (1791-1867).” Michael Faraday was one of the great pioneers of chemistry who contributed new knowledge and

created new directions. In her Talk, Prof. Rao covered the incredible journey of Faraday from a boy with a minimal formal education of just three years to becoming one of the most prolific and wide-ranging experimental scientists elaborating on his important experimental discoveries such as benzene (1825), electro-magnetic induction (1831), electro-chemistry (early 1830s), the magneto-optical effect and diamagnetism (both 1845).



Prof. Indumati Rao delivering her talk online on the occasion of National Science Day Celebration at HBNI

International Women's Day Celebration

The Women Cell of HBNI organized International Women's Day on March 8, 2022 at the central office by organizing a webinar titled "Adventures of a particle physicist and why should I care," by Prof. Archana Sharma, Senior Scientist, CERN Geneva, Switzerland. The webinar was organized in hybrid mode and attended by a large no. of students, staff and faculty of HBNI. Smt. Bharati Suvarna, Assistant Registrar and Convener, Women's Cell, HBNI welcomed the gathering. Prof. Vasudeva Rao, VC, HBNI gave introductory remarks. Prof. Umasankari Kannan, Chairperson, Women's Cell, HBNI introduced the guest speaker of the day, Prof. Archana Sharma, who is globally recognised for her work on gaseous detectors for research in High Energy Physics, which explores what the world is made of.

She is an avid supporter of women pursuing careers in science, technology, engineering and mathematics (STEM) and also runs an NGO called Life Lab Education and Research Foundation with the main objective to create partnerships with educational institutions for the benefit of the underprivileged: www.lifelab.org.in. In her talk, Prof. Sharma gave insights into the fascinating world of particle physics and how it impacts human lives. She also highlighted the role played by Indian and international women scientists in the research activities being carried out at CERN.



**Glimpses of International Women's Day Celebration at HBNI:
HBNI Women's cell members and HBNI staff present on the occasion.
Prof. Vasudeva Rao, VC, HBNI and Prof. Umasankari Kannan, Chairperson,
HBNI Women's, Cell addressing the gathering (from left and right)**



Prof. Archana Sharma delivering her talk online on the occasion of International Women's Day

Discussion Meeting on Basic Sciences (DiMBS-2022)

The year 2022 has been declared by the United Nations as the International Year of Basic Sciences for Sustainable Development. Towards commemorating the International Year, a Discussion Meeting on Basic Sciences (DiMBS -2022) was organized by HBNI in hybrid mode during April 6-8, 2022 at the DAE Convention Centre, Anushaktinagar. The meeting saw participation from Directors, Dean Academics, Dean-students affairs and faculty members of Constituent Institutions/Off-Campus Centre of HBNI both in online mode and physically.

In the inaugural session of the meeting, Prof. P. D. Naik, Dean, HBNI welcomed the gathering and the invited speakers. In his address, Prof. Vasudeva Rao, VC, HBNI elaborated on the main objective behind conducting the meet which was to provide a platform for interaction and to catalyze the academic/research collaborations between faculty members and students of different Constituent Institutions (CIs)/Off-Campus Centre (OCC) of HBNI. Prof. A. K. Mohanty, Director, BARC complimented HBNI for organizing the discussion meeting, the first of its kind, allowing discussion of research activities and research facilities present in all CIs/OCC of HBNI at a common platform. In his address, he emphasized on the importance and relevance of curiosity driven research which not only leads to the advancement of one's knowledge of nature, but also to applied science and technology breakthroughs leading to important contributions to society. He remarked that basic science and applied science are intimately connected and basic research has played a major role in initiating and strengthening applied research since time immemorial. He also elaborated on the efforts of DAE to strengthen the cause of fundamental research in nuclear energy and areas of science. He concluded by saying that "Sustaining and supporting basic research activities is of crucial importance as future basic research programs can contribute towards solving national and global issues such as hunger, poverty, universal health care, climate change and biodiversity which are all critical to sustainable future of mankind".

The Chief Guest, Dr. R. Chidambaram, Former Principal Scientific Advisor to GoI and Former Secretary, DAE, in his talk titled "Importance of Basic Sciences", gave an overview of contribution of fundamental research in solving most of the problems of mankind be it in the field of medicine, healthcare, communication & electronics, nuclear energy etc.

Dr. Anil Kakodkar, Chancellor, HBNI gave an inspiring talk in which he shared his vision for HBNI and discussed the roadmap for the growth of HBNI as an institute of national and international importance in the coming years.

During the ten technical sessions over a period of three days, Dean-Academics and faculty members in the disciplines of Chemistry, Engineering, Life Sciences, Physics, Mathematics and Medical & HealthSciences from various constituent institutions and off campus centre of HBNI gave presentations on the research activities, research facilities and research infrastructure in their institutions.

The meeting was well received by all the participants and all agreed that the meeting was unique and useful and will pave the way for useful collaborations among different CIs/OCC of HBNI. In his valedictory address Prof. R. B. Grover, Emeritus Professor and Founder Director, HBNI remarked that HBNI as a conglomeration of eleven premier institutions has a vital role to play in the national development and for this purpose HBNI should ensure a multi-disciplinary research environment in its CIs/OCC which helps to create not only new high impact knowledge but technology as well.



Dignitaries on the dais during the inaugural session of DiMBS-2022



Prof. P. D. Naik, Prof. Vasudeva Rao, Prof. A. K. Mohanty and Dr. R. Chidambaram delivering their addresses in the inaugural session of DiMBS-2022 (from left to right)



Prof. Anil Kakodkar, Chancellor, HBNI delivering his talk (left) and interacting with audience during DiMBS-2022 (right).



Faculty from different CIs/OCC of HBNI giving their presentations during the technical sessions of DiMBS-2022



Dignitaries on the dais during the valedictory session of DiMBS-2022



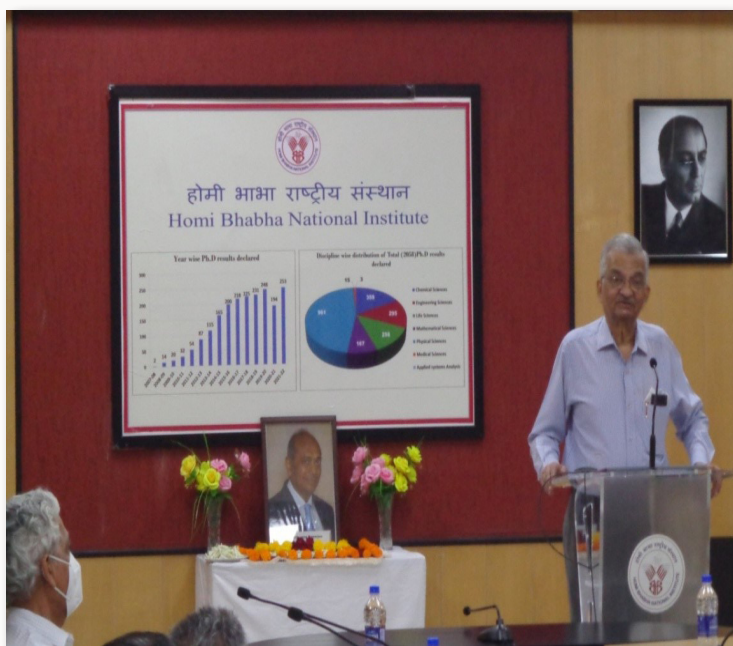
Prof. Srikumar Banerjee Memorial Programme

A Memorial Program in honour of Prof. Srikumar Banerjee, Former Chancellor, HBNI was organised on May 10, 2022 by HBNI. Prof. (Dr.) Indranil Manna, JC Bose Fellow & Vice Chancellor, BIT Mesra, Ranchi was the chief guest on the occasion. Eminent personalities present on the occasion included, Prof. Anil Kakodkar, Chancellor, HBNI, Shri K. N. Vyas, Secretary, Department of Atomic Energy (DAE), Chairman, Atomic Energy Commission and Chairman, Council of Management, Prof. J. B. Joshi and Prof. R. B. Grover, Emeritus Professors, HBNI. Dr. N. Sai Baba, Former CE, Nuclear Fuel Complex, attended the program online.

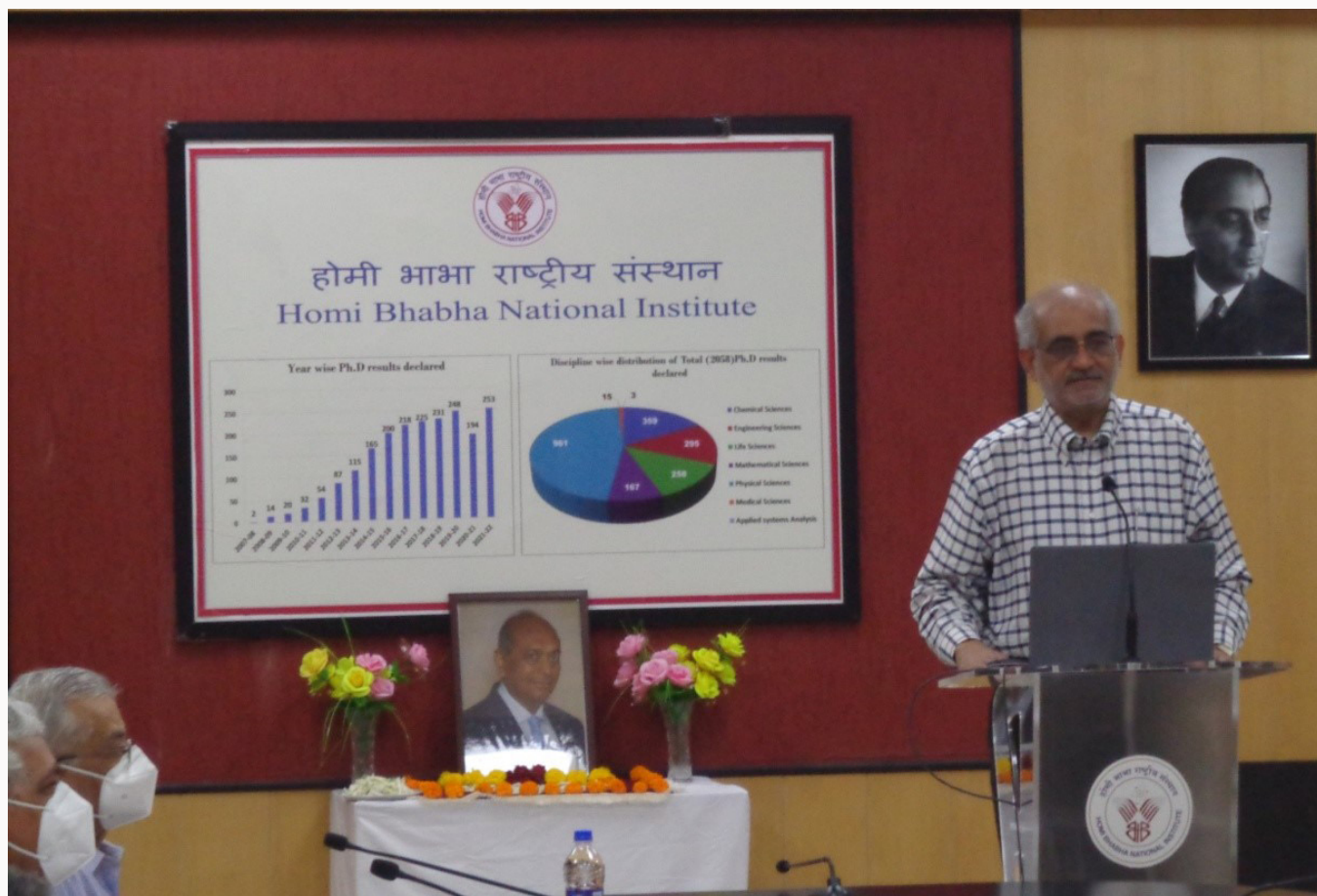
All the dignitaries present on the occasion paid humble tributes to Prof. Banerjee who was a great metallurgical scientist, academician par excellence, outstanding mentor and an institution builder. Prof. Indranil Manna gave an informative talk on the topic “Microstructure: The Key to Designing and Developing Engineering Solids”. In his Talk, he elaborated on the influence of microstructural modifications on the properties of the engineering materials.



Dignitaries Present on the occasion of Prof. Srikumar Banerjee Memorial Program



Prof. Anil Kakodkar, Chancellor, HBNI (left) & Shri K. N. Vyas, Chairman, Council of Management, HBNI and Secretary DAE (right) delivering their address



Prof. Indranil Manna delivering his talk

Foundation Day Celebration

The Foundation Day of the Homi Bhabha National Institute (HBNI) was celebrated in hybrid mode at the DAE Convention Centre in Anushaktinagar, Mumbai on June 3, 2022. Shri S. Somanath, Secretary, Department of Space and Chairman, Indian Space Research Organization (ISRO) was the chief guest on the occasion. Dr. A. V. Rama Rao, Founder & Director, Avra Labs (Pvt.) Ltd. and Former Director, IICT was invited to deliver Prof. J. B. Joshi Research Foundation Endowment Lecture. Prof. A. K. Mohanty, Director, BARC and Member, Council of Management, HBNI presided over the function. Chancellor, HBNI, Prof. Anil Kakodkar, functionaries of HBNI at various CIs/OCC and Central Office, and a large number of faculty, alumni and students of HBNI participated in function in both online and offline mode. Outstanding students of the institute in various academic programs and winners of Prof. J. B. Joshi Research Foundation innovation awards for the year 2021 were also honoured on the occasion.

Prof. P. D. Naik, Dean, HBNI welcomed the gathering. Prof. Vasudeva Rao presented the annual report of HBNI for the period 2021-22. He highlighted the progress of HBNI in various domains and informed the gathering about the new academic programmes introduced by HBNI, value added courses conducted and high value webinars conducted as part of celebration of “Azadi Ka Amrit Mahotsav”.

Prof. P. D. Naik, Dean, HBNI welcomed the gathering. Prof. Vasudeva Rao presented the annual report of HBNI for the period 2021-22. He highlighted the progress of HBNI in various domains and informed the gathering about the new academic programmes introduced by HBNI, value added courses conducted and high value webinars conducted as part of celebration of “Azadi Ka Amrit Mahotsav”.

Dr. A. V. Rama Rao presented J. B. Joshi Innovation awards. He delivered an inspiring lecture titled, “Reflections from a Personal Journey as Scientist, Technologist and Entrepreneur”, providing a detailed account of his journey from a world class academic researcher to a successful Entrepreneur running a multi-million-dollar pharmaceutical company (Avra Laboratories).

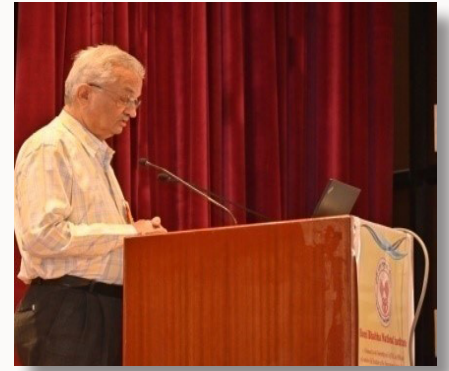
Shri S. Somanath distributed degree certificates and also presented awards to outstanding students of PhD, M.Tech, MD, DM and MCh programmes. He delivered an address on the topic “Technology Disruptions in Space Sector - Our Opportunities”. He also talked about the space start-up companies in India which are contributing in building & launching rockets and satellites, space-based applications development, RS data processing and propulsion systems development.

In his presidential address, Prof. A. K. Mohanty remarked that HBNI is one of the country's great institutions of higher education and acts like a Centre of Excellence bringing together eleven premier DAE institutions which provide degrees of highest standard in India. He further remarked that the research carried out at different constituent institutions of HBNI is highly contemporary resulting in sustainable development in India. He said that HBNI is doing well and fulfilling its mandate but still there are challenges ahead not only in the nuclear sector towards design of next generation reactors but also towards solving the socio-economic problems of the country. To meet these challenges and deliver significant outcomes requires strong research and innovation culture, creative and critical thinking in addition to the accelerated pace of research and HBNI ecosystem is well geared to provide the environment needed to carry out the cutting edge as well as goal-oriented research.

Following the formal program, a colourful cultural program was presented by the students of HBNI.



Prof. P. D. Naik welcoming the gathering



Prof. A. K. Mohanty, Prof. Vasudeva Rao and Prof. Anil Kakodkar addressing the gathering (from left to right)



Dr. A. V. Rama Rao delivering Prof. J. B. Joshi Endowment lecture



Shri S. Somanath delivering his address