

अणुविद्या

HBNI NEWSLETTER

Issue No. 14

December 2025



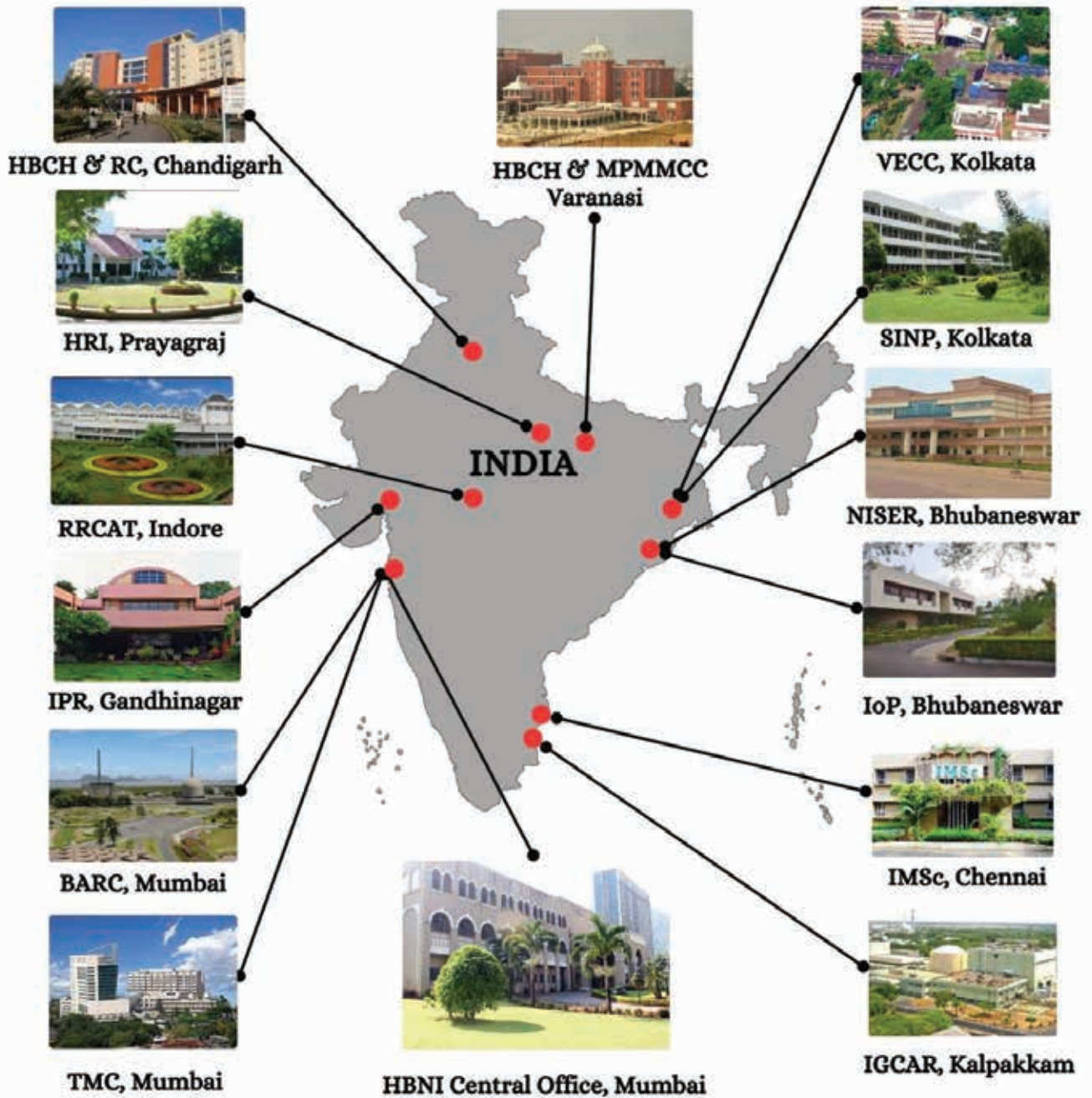
होमी भाभा राष्ट्रीय संस्थान HOMI BHABHA NATIONAL INSTITUTE

(यूजीसी अधिनियम 1956 की धारा 3 के तहत एक मानद विश्वविद्यालय एवं परमाणु ऊर्जा विभाग की एक सहायता प्राप्त संस्था)

(A Deemed to be University u/s 3 of the UGC At 1956 and a Grant-in-Aid Institute of the Department of Atomic Energy)



Location of HBNI Central Office, Constituent Institutions & Off Campus Centres



2025
 7th Rank in Research
 12th Rank in University
 20th Rank in Overall

A+ Grade
 3.4 Score

2025
 1st in Physical Sciences
 3rd in All Publications

Issue No : 14

DECEMBER 2025

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HBNI NEWSLETTER

Homi Bhabha National Institute

(A Deemed to be University u/s 3 of UGC Act 1956 and
a Grant-in-Aid Institute of the Department of Atomic Energy, Govt. of India)



Council of Management

(As on December 31, 2025)

Prof. A. K. Mohanty, Secretary DAE & Chairman, AEC	Chairman
Prof. U. Kamachi Mudali, Vice Chancellor, HBNI	Member
Shri Vivek Bhasin, Director, BARC	Member
Ms. Seema Jain, Member (Finance), AEC	Member
Dr. Sumit Som, Director, VECC	Member
Dr. Sudeep Gupta, Director, TMC	Member
Prof. H. N. Ghosh, Director, NISER	Member
Prof. Ujjwal Sen, Director, HRI	Member
Dr. V. S. Ramamurthy, Emeritus Professor, NIAS, Bengaluru	Member
Dr. S. Sivaram, Emeritus Professor, IISER Pune & Hon. Professor, IISER, Kolkata	Member
Prof. A. K. Tyagi, Dean, HBNI	Member
Shri Hari Narayan Sahu	Non-Member Secretary



Academic Council

(As on December 31, 2025)

Prof. U. Kamachi Mudali, Vice Chancellor, HBNI	Chairperson
Prof. A. K. Tyagi, Dean, HBNI	Member
Shri Vivek Bhasin, Director, BARC	Member
Shri C. G. Karhadkar, Director, IGCAR	Member
Shri Unmesh D. Malshe, Director, RRCAT	Member
Prof. Sumit Som, Director, VECC	Member
Prof. Gautam Bhattacharyya, Director, SINP	Member
Prof. Tapas Ganguli, Director, IPR	Member
Prof. Karuna Kar Nanda, Director IoP	Member
Prof. Amritanshu Prasad, Director (Acting), IMSc	Member
Prof. Ujjwal Sen, Director, HRI	Member
Prof. Sudeep Gupta, Director, TMC	Member
Dr. Satyajit Pradhan, Director, HBCH & MPMCC	Member
Prof. H. N. Ghosh, Director, NISER	Member
Prof. Siva Umamathy, IISc, Bengaluru	Member
Prof. Manoj K. Tiwari, IIM, Mumbai	Member
Prof. Devang V. Khakhar, IIT, Bombay	Member
Prof. D. V. Udupa, BARC	Member
Prof. Pankaj Chaturvedi, TMC	Member
Dr. Ashish Gulia, Director, HBCH & RC, New Chandigarh, Punjab	Member
Prof. A. Srinivasan, NISER	Member
Prof. Pranay Kumar Swain, Convenor, BoS (Applied Systems Analysis)	Member
Prof. Bedangadas Mohanty, Convenor, BoS (Physical Sciences)	Member
Prof. R. Tewari, Convenor, BoS (Engineering Sciences)	Member
Prof. S. Gautam, Convenor, BoS (Life Sciences)	Member
Prof. Manoj Kumar Yadav, Convenor, BoS (Mathematical Sciences)	Member
Prof. Siddhartha S. Laskar, Convenor, BoS (Medical & Health Sciences)	Member
Prof. Chandra Nath Patra, Convenor, BoS (Chemical Sciences)	Member
Prof. C. Gunanathan, Convenor, BoS (Int. Master's Programme)	Member
Prof. Mainak Bandyopadhyay, Convenor, BoS (Interdisciplinary Science & Engineering)	Member
Shri Hari Narayan Sahu, Registrar, HBNI	Secretary

From the Vice Chancellor's Desk



The December 2025 issue of AnuVidhya, the Newsletter of HBNI will give the readers an overview of the major activities and events organized by HBNI at its Central Office in Mumbai as well as the events organized by various CIs and OCCs of HBNI at their respective locations during July 2025-December 2025.

I am happy to share that HBNI received 7th rank under Research Institution Category, 12th rank in the University category and 20th rank in overall category in Ministry of Education's (MoE) National Institutional Ranking Framework (NIRF) exercise for 2025. A delegation from Maharaja Sayajirao University of Baroda, led by its Vice-Chancellor Prof. Bhalchandra Bhanage, visited HBNI on December 22, 2025 for an academic interaction and exposure visit aimed at understanding institutional and academic best practices followed by HBNI.

Several commemorative events were organized by HBNI during this period such as Independence Day, Anti-ragging Week, Hindi Day, Teachers' Day, Dr. Sekhar Basu Memorial Program, Constitution Day, Swacchata Campaign, Vigilance Awareness Week and so on. HBNI also organized other programs such as Author's Workshop by Wiley, activities pertaining to **UGC-SAARTHI initiative, Lecture Series in Physical Chemistry, talk on "Funding pathways for Scientific innovators & entrepreneurs" for the benefit of its students.** Two webinars were also organized by HBNI to foster the spirit of entrepreneurship among its students.

HBNI signed three new MoUs to augment academic activities for our faculties and students. Many HBNI faculties and students received awards and honours during this period and we take this opportunity to congratulate them for their achievement.

HBNI had initiated a "Creative Corner" for our faculties and students from the June 2025 issue. I am happy to share that we have received very good response for the same. From this issue, we have also included contributions from our Alumni in terms of Scientific Achievements and Creative Attributes. The entries received will be screened for their content and selected for publishing in the Newsletter. I request our Alumni to strengthen our association by contributing towards the Newsletter.



(U. Kamachi Mudali)



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EVENTS CONDUCTED AT HBNI CENTRAL OFFICE, MUMBAI

Independence Day Celebration at HBNI

79th Independence Day was celebrated in HBNI on August 15, 2025 with great enthusiasm, dignity, and patriotic spirit. The event was attended by all the officers, faculties, staff members of HBNI/HRDD and students.

The programme commenced with the hoisting of the National Flag by the Hon'ble Vice-Chancellor of HBNI, Prof. U. Kamachi Mudali, followed by the National Anthem, evoking pride and respect for the nation. The celebration concluded with refreshments offered to all attendees, and a vote of thanks recognizing the contributions of organizers, participants, and guests for making the event a success.



*Hon'ble VC HBNI, Prof. U. Kamachi Mudali
hoisting the National Flag*

Anti-ragging Week Celebration at HBNI

As per the UGC advisory, anti-ragging day (12th August 2025) and week (12th-18th August 2025) were celebrated at HBNI Central Office, Mumbai. As part of the program, a poster competition was organized by the HBNI Central Office, Mumbai with the theme "Ragging: A Menace".

The entries received were judged by a two membered committee and Anusree Dey from BARC and Swati Satamkar Bagu, RMC-BARC were declared as winner. The winning entries are shown below:



Anusree Dey, BARC, Mumbai



Swati Satamkar Bagu, RMC-BARC, Mumbai

Author's Workshop by Wiley at HBNI

HBNI organised an Author's Workshop in association with M/s Wiley (Publisher) on August 18, 2025, in HBNI Council Hall, conducted in hybrid mode—online via YouTube and WebEx. Dr. Partha Pratim Pal and Dr. Rohini Dattatraya Kitture (Deputy Editors, Wiley) as well as Dr. Vinila Bedekar (Assistant Editors, Wiley) gave insight talks on the topic “Mastering Research Publishing: Insights from the Editor's Desk” for the benefit of HBNI students. The sessions gave an overview of Wiley's journals, offering an idea of the range of potential venues for research submissions. It also delved into the detailed editorial review process, covering initial assessments and peer review, and clarifying reasons for desk rejections. Drawing on practical tips from editors, the talk aimed to empower budding researchers to improve their publication outcomes and maximize the impact of their work. The session was well received and over 30 participants joined the session.

UGC- SAARTHI Activity conducted by HBNI

SAARTHI activities were carried out by two HBNI-SAARTHIs, Ms. Madhusmita Barman from VECC and Mr. Devadershan A. H. from IGCAR on September 03, 2025 and September 09, 2025, respectively. Ms. Madhusmita conducted a discussion session on the topic “National Education Policy (NEP) 2020” at VECC, Kolkata and Mr. Devadershan A. H. presented a talk on “Academic Bank of Credits (ABC ID): Redefining Higher Education under NEP 2020” at IGCAR. Madhusmita Barman presented the key highlights of the NEP-2020, with special

emphasis on its provisions related to Holistic and Multidisciplinary Learning, Flexible Learning Approach with Multi Entry and Exit Facility, Research Linked with Industry and Innovation and Academic Excellence. An elaboration on how the policy envisions strengthening India's education system through flexibility in choosing courses and programs and multiple entry-exit, promotion of multidisciplinary research culture, integration of Industry with research innovation was made. Benefit of Academic Bank of Credits (ABC) system, a significant feature of the NEP 2020 was discussed in detail by Mr. Devadershan A. H. at IGACR. The event conducted at VECC was attended by a total of 16 research scholars, including JRFs and SRFs, who actively took part in the discussion and nearly 15 students participated in IGACR. The session proved to be informative, motivating the scholars to explore the opportunities offered by NEP-2020 in shaping their academic and research careers.



A glimpse of the session in progress during the Author's Workshop

Teachers' Day at HBNI

HBNI celebrated Teachers' Day on 5 September 2025 at its Central Office to acknowledge and honour the invaluable contribution of teachers and mentors in shaping the academic and professional development of students.

The programme was graced by the Hon'ble Vice-Chancellor, HBNI, and the Chief Guest, Prof. A. B. Pandit, Vice-Chancellor of Institute of Chemical Technology, Mumbai, faculties, officers, staff and students of HBNI participated in the celebration, which focused on recognising the pivotal role of teachers in nurturing scientific temper, academic integrity, and excellence.

A key highlight of the programme was the Teachers' Day address by Prof. A. B. Pandit, who inspired the gathering with his insights on the changing landscape of higher education, the evolving role of teachers, and the importance of fostering innovation and research within academic institutions. His address was widely appreciated for its depth and relevance.

The occasion also provided an opportunity for meaningful interaction between students and faculties, fostering a culture of mutual respect and appreciation. The programme concluded with a Vote of Thanks, followed by informal interaction over tea. The celebration served as a fitting tribute to the dedication of teachers and reaffirmed HBNI's commitment to student-centric learning and academic excellence across its constituent institutions.



Prof. A. B. Pandit, Hon'ble VC, ICT, Mumbai delivering his talk during Teacher's Day

Hindi Diwas

हिन्दी दिवस के अवसर पर होमी भाभा राष्ट्रीय संस्थान के परिषद कक्ष में दिनांक बुधवार, 17 सितंबर 2025, को दोपहर 3:00 बजे एक समारोह का आयोजन किया गया। इस अवसर पर डॉ. आर. तिवारी, प्रतिष्ठित वैज्ञानिक, पदार्थ वर्ग, बीएआरसी मुख्य अतिथि थे।

समारोह की शुरुआत प्रो. ए. के. त्यागी, अधिष्ठाता, एचबीएनआई द्वारा स्वागत भाषण देने के साथ हुई। तत्पश्चात् प्रो. यू. कामाची मुदली, कुलपति, एचबीएनआई ने सभा को संबोधित किया और अपने भाषण में हिंदी भाषा के प्रचार एवं प्रसार के महत्व पर जोर दिया। मुख्य अतिथि डॉ. आर. तिवारी ने हिंदी दिवस के उपलक्ष्य पर सभा को सम्बोधित किया और अपने अनुभव साझा किए। तत्पश्चात् प्रो. नवीन कुमार, सदस्य, राजभाषा कार्यान्वयन समिति, ने एचबीएनआई में हिंदी भाषा के प्रचार एवं प्रसार के लिए उठाए गए कदमों का उल्लेख किया एवं 14 सितंबर को एचबीएनआई द्वारा आयोजित हिंदी श्रुतलेखन और अंग्रेजी-हिंदी अनुवाद प्रतियोगिता के विजेताओं के नाम घोषित किए। मुख्य अतिथि डॉ. आर. तिवारी ने विजेताओं को पुरस्कार प्रदान किए। श्री बी. के. शर्मा, सचिव, राजभाषा कार्यान्वयन समिति, एचबीएनआई ने धन्यवाद प्रस्ताव प्रस्तुत किया। राष्ट्रगान के गायन के साथ कार्यक्रम का समापन हुआ।



परिषद कक्ष में हिंदी दिवस समारोह में भाग लेते एचबीएनआई के पदाधिकारी एवं कर्मचारी



हिंदी प्रतियोगिता के विजेता डॉ. आर. तिवारी से पुरस्कार प्राप्त करते हुए

Swachhata Hi Seva-2025 at HBNI

HBNI observed Swachhata Hi Seva-2025 from September 17 to October 2, 2025 as part of the nationwide campaign, in accordance with the directions of the Cabinet Secretariat, Department of Atomic Energy (DAE), and UGC/AICTE. The Registrar, HBNI, acted as the Nodal Officer for the campaign, and an internal circular was issued to all Constituent Institutions, Off-Campus Centres, and the HBNI Central Office outlining the activities to be undertaken.

With the theme “Swachhotsav”, the campaign focused on visible cleanliness through Shramdaan and community participation. At the HBNI Central Office, activities included cleaning and rejuvenation of identified cleanliness target units, weeding out of obsolete records, administration of the Swachhata Pledge and display of campaign banners and posters. A cleanliness drive under “Ek Ghanta, Ek Din, Ek Saath”, Safai Mitra Suraksha

initiatives and plantation activities were also carried out with active participation of officers and staff.



HBNI officials and employees taking Swachhata Hi Seva Pledge

Dr. Sekhar Basu Memorial Programme at HBNI

HBNI organised Dr. Sekhar Basu Memorial Programme on September 24, 2025 in hybrid mode, in honour and remembrance of Late Dr. Sekhar Basu, former Secretary, Department of Atomic Energy and former Chairman, Council of Management, HBNI.

The programme was attended by the family members of Late Dr. Sekhar Basu, invited dignitaries, officers, faculties, staff and students of HBNI. A brief presentation highlighting the life and professional contributions of Late Dr. Sekhar Basu was made, recalling his leadership and enduring legacy.

The Dr. Sekhar Basu Memorial Lecture was delivered by Dr. Rajendra Achyut Badwe, Hon. Professor (Emeritus) and former Director, Tata Memorial Centre, on the topic “DAE’s Tryst with Cancer Care in India.” The lecture provided valuable insights into the vision, sustained efforts, and achievements of the Department of Atomic Energy in the field of cancer care, highlighting both technological advancements and the human-centric approach underpinning these initiatives.

The programme served as a meaningful academic tribute and reinforced HBNI’s commitment to education, research, and societal relevance.



Dr. Rajendra Achyut Badwe, delivering his lecture during Dr. Sekhar Basu Memorial Program at HBNI

Special Campaign 5.0 for Institutionalizing Swachhata and Minimizing Pendency at HBNI



HBNI officials and employees actively participating in cleanliness drive at the campus

As per the instructions of the Department of Atomic Energy, HBNI conducted Special Campaign 5.0 between October 2-31, 2025, aimed at institutionalizing Swachhata and minimizing pendency in government offices.

The campaign focused on cleanliness of office spaces, systematic record management, weeding out of obsolete files, and timely disposal of pending matters. Officers and staff actively participated, contributing to improved workplace hygiene, efficiency, and administrative responsiveness.

Vigilance Awareness Week-2025 at HBNI

HBNI observed Vigilance Awareness Week (VAW) - 2025 from October 27 to November 02, 2025, in accordance with the directions of the Central Vigilance Commission (CVC). The theme of Vigilance Awareness Week-2025 was “Vigilance: Our Shared Responsibility / सतर्कता: हमारी साझा ज़िम्मेदारी.”



Shri Gigi Joseph, OS, Security Electronics and Cyber Technology Division (SECTD), BARC delivering his talk during VAW-2025

The observance included a series of awareness-oriented activities aimed at promoting integrity, transparency, and ethical conduct among employees and students. The programme commenced with the Integrity Pledge, followed by a talk on “Cyber Vigilance” delivered by Shri Gigi Joseph, OS, Security Electronics and Cyber Technology Division (SECTD), BARC. The talk highlighted cyber risks, safe digital practices, and the importance of vigilance in day-to-day professional life.

As part of the week-long observance, essay writing, slogan writing, and rangoli competitions were organized on vigilance-related themes, witnessing enthusiastic participation from students and staff.

The concluding event of Vigilance Awareness Week-2025 was held on November 06, 2025 in the HBNI Council Hall. On the occasion, a presentation on the theme, “Vigilance: Our Shared Responsibility / सतर्कता: हमारी साझा ज़िम्मेदारी,” was made by Shri Hari Narayan Sahu, Registrar, HBNI, followed by distribution of prizes by the Hon’ble Vice Chancellor to the winners of the competitions organised during the week.

The observance reinforced the message that vigilance is a shared responsibility and an essential component of ethical and transparent institutional functioning.

Lecture Series in Physical Chemistry at HBNI

A lecture series in Physical Chemistry by Prof. Biman Bagchi (DST-SERB National Chair Professor), IISc, Bangalore was organized by ChED & HRDD, BARC and HBNI during November 26-29, 2025. This exhaustive lecture series covered a wide range of topics such as Modern Aspects of Kinetic Theory of Gases, Thermodynamics, Phase Equilibrium, Chemical Kinetics, Biophysics, Protein Folding, Biological Water, Energy Materials, Time Correlation Function & Spectroscopy etc. The program was coordinated by Prof. S. K. Musharaf Ali, BARC and Prof. Madhumita Goswami, HBNI. The lecture session was inaugurated by Prof. A. K. Tyagi, Dean, HBNI. In his inaugural address, Dr. Tyagi welcomed Prof. Bagchi and all other participants and encouraged the students to learn the subject with close interaction with Prof. Bagchi. There were total 45 participants from various unit of DAE and academic institutes across the country. The program was concluded with the vote of thanks by Prof. Madhumita Goswami, Associate Dean, HBNI.



Welcome of Prof. Biman Bagchi by Prof. A.K. Tyagi (left) and a glimpse of a lecture in progress (right)

Constitution Day-2025 at HBNI

HBNI observed Constitution Day (Samvidhan Divas) on November 26, 2025 to commemorate the adoption of the Constitution of India. Officers, staff, and students of HBNI participated in the programme, which featured the reading of the Constitution's Preamble in both Hindi and English, reflecting their shared commitment to constitutional values and democratic principles.



HBNI officials reading the Preamble of India's Constitution

Talk on “Funding pathways for Scientific innovators and entrepreneurs” at HBNI

HBNI Institutional Innovation Council (HBNI-IIC), Mumbai in association with Atal Incubation Centre BARC (AIC Anushakti) organised a talk on “Funding Pathways for Scientific Innovators & Entrepreneurs” on December 11, 2025. The speaker Shri Aadesh Suryarao, CEO AIC-Anushakti, gave a detailed presentation about how to explore funding opportunities to convert research into impactful real-world solutions, the ways in which AIC-Anushakti supports innovators & start-ups with proposals, mentorship, and industry linkages, the methods of obtaining seed funding and grant support for deep-tech start-ups & ideas and various funding schemes from DST, DBT, BIRAC, AIM, MeitY. The lecture was attended by ~ 30 participants which included both faculties and students.



Group photograph of the participants of the session on “Funding pathways for scientific innovators and entrepreneurs” by Shri Aadesh Suryarao, CEO, AIC-Anushakti, BARC

Visit of MS University of Baroda Delegation to HBNI

A delegation from Maharaja Sayajirao University of Baroda, led by its Vice-Chancellor Prof. Bhalchandra Bhanage, visited HBNI on December 22, 2025 for an academic interaction and exposure visit aimed at understanding institutional and academic best practices.

The programme commenced with welcome and opening remarks by senior leadership of both institutions. Prof. U. Kamachi Mudali, Vice-Chancellor, HBNI, and Prof. Bhalchandra Bhanage, Vice-Chancellor, MSU Baroda, highlighted the importance of academic collaboration and quality enhancement in higher education.

Two thematic academic presentations were delivered by HBNI faculties. The first presentation focused on HBNI as an academic enabler of the Department of Atomic Energy, outlining its unique academic structure and role. The second presentation highlighted quality management practices in higher education at HBNI, with emphasis on academic governance and quality assurance mechanisms.

This was followed by an interactive session with the MSU delegation, facilitating discussions on academic administration, institutional processes, and quality frameworks. The visit concluded with closing remarks and a vote of thanks, marking a constructive step towards strengthening academic cooperation and exchange of best practices between the two institutions.



Group photograph of MSU delegation with HBNI officials

News Updates

1) HBNI signed three new MoUs with the following organizations: 1) AIC BARC Anushakti Foundation, Mumbai, 2) AIC IGCAR Fast Foundation, Anupuram, Tamil Nadu, 3) Indian Institute of Technology (IIT), Gandhinagar.

2) A Faculty Induction Program was conducted at HBNI, Mumbai on November 28, 2025 in hybrid mode. Total 80 faculties from all CI/OCC attended the program in hybrid mode.

Courses Conducted by HBNI

1) Machine Learning for Material Science Course

HRI-HBNI in collaboration with NISER-HBNI conducted a 02 credit (30 lecture hours) course on “Machine Learning for Material Science” in online mode (Webex and YouTube). The objective of course was to introduce artificial intelligence and deep neural networks with specific focus on application to material science problems. The course co-ordinators were Prof. Prasenjit Sen, HRI and Prof. Subhankar Mishra, NISER. The course was organised from August 11, 2025 to December 12, 2025 (weekly 3 lectures). Total 12 students registered for the course from different CIs/OCCs. There were assignments and projects where students developed machine learning program on chosen topic. Final written examination was held on December 15, 2025.

2) Foundation of Entrepreneurship Course

A value-added course called “Foundation of Entrepreneurship” was conducted jointly by HBNI – IIMA ventures during August 05 to November 20, 2025 in online mode. Prof. Dipanwita



Dutta, Associate Dean, HBNI was the course co-ordinator. Eighty participants enrolled for the course and 12 participated in the project. The course equipped participants with essential practical skills and foundational knowledge to identify, assess, and pursue entrepreneurial opportunities. Emphasising hands-on learning, it provided practical tools and frameworks that students could apply directly, from landscaping, ideation, business planning, to financing, marketing, law, governance and developing the right entrepreneurial mindset. Dr. Supriya Sharma, Ms. Valerie Mendonca and Ms. Ankur Sohanpal from IIMA ventures delivered the lectures. There were five guest speakers also i.e. Gaurav Seth (founder of PierSight), Rohit Chouhan (co-founder of Nabhdrishti), Suyash Sohanpal (Co-founder of S Cube), Sreerag Marar and Soniya Sadhnani from IIMA Ventures.

3) Research Methodology, Research and Publication Ethics (RM&RPE) course

HBNI in collaboration with HRDD, BARC conducted “Research Methodology, Research and Publication Ethics” course (3 credits, 45 hours lectures) in hybrid mode which is the compulsory UGC credit course for Ph.D. students. The objective of course is to spread awareness in Ph.D. scholar about publication ethics and publication misconducts. The course co-ordinators were Prof. Dipanwita Dutta, HBNI and Prof. K. K. Swain, BARC and lecturers were Dr. K. K. Swain, Dr. A. M. Banerjee, Dr. Remya Devi from BARC. The course was organised from September 08, 2025 to October 18, 2025 (weekly 5 lectures). Total 250 students registered for the course, among them 80 students from BARC attended in offline mode and others attended in online mode from different CIs/OCCs. Examinations were held on November 17, 2025 and November 24, 2025 in 10 centres in different CIs/OCCs and 180 students appeared for examination.

4) Advanced Materials Chemistry course

HBNI conducted “Advanced Materials Chemistry” Course in hybrid mode from October 27, 2025 to January 16, 2026. Dr. Vinita Gupta Grover, Chemistry Division, BARC was the Course Director and Prof. Madhumita Goswami, HBNI was the Co-ordinator for this course. The course covered the broad topics in materials chemistry including General Materials Chemistry, Characterization Techniques, Major Trace and Ultra-trace Analysis Techniques and Functional Materials. Around 93 participants from CIs/OCCs of HBNI, educational institutes and industries from all over India attended the course and benefitted from it.

Webinars Conducted by HBNI

- 1) Prof. Shyam Sundar, Assistant Professor, Institute of Physics, Federal University of Rio de Janeiro, Brazil delivered a webinar November 21, 2025 titled “Application of Spin Polarized Muons in Condensed Matter Research” (**Alumni Webinar**).
- 2) Shri Aadesh Suryarao, CEO, AIC-Anushakti Foundation, BARC delivered a lecture on December 11, 2025 titled “A Session on Funding Pathways for Scientific Innovators & Entrepreneurs”.

EVENTS ORGANISED BY CONSTITUENT INSTITUTES AND OFF-CAMPUS CENTRES OF HBNI

Scientific Events: Symposia/Workshops/ Conference

Workshop on Advanced Scanning TEM based Techniques and EPMA at IGCAR

An International Workshop on “Advanced Scanning TEM-based Techniques and EPMA” was conducted during July 9-10, 2025 at IGCAR, Kalpakkam. Renowned electron microscopists delivered lectures covering Advanced Scanning TEM based techniques including magnetic domain imaging using Lorentz TEM and LMSTEM differential phase contrast imaging; Orientation Imaging Microscopy using Precession Electron Diffraction (PED-OIM). The workshop also included invited talks by several eminent speakers from India covering the principles and practices on TEM and Electron Probe Micro Analysis (EPMA) along with their application to advanced materials development and characterization. Practical live demonstrations on aberration corrected TEM and EPMA facilities were held during the workshop. The workshop was attended by more than 100 participants from IGCAR and from across India. Participants included, scientists, faculties, a doctor and a number of Ph.D. students.



Dignitaries on the dais during Workshop on Advanced Scanning TEM based Techniques and EPMA

QIC Meet 2025: Two-day Quantum Tech Meet at HRI

A two-day long Quantum Tech Meet was organized at HRI on July 11-12, 2025. The aim of the meet was to advance research collaborations, facilitate knowledge exchange, and explore emerging trends in quantum information theory, quantum many-body physics, and their interfaces. It provided a platform for young faculties to network and enhance their teaching and research capabilities. At the same time, it also gave the research students a very necessary

exposure to the current trends of diverse research happening in these fields. Total 38 participants attended the meet which included 6 outstation participants.

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Participants of Two-day Quantum Tech Meet at HRI

A Talk on “Global Fusion Scenario & ITER Private Sector Fusion Engagement” at IPR

The talk was given by Dr. Nitendra Singh from ITER Organization, France, on July 15, 2025 at IPR. The global fusion energy landscape is undergoing a transformative shift, driven by synergistic advances in public sector research, international cooperation, and a rapidly expanding private fusion industry. At the core of this development is the ITER Organization, a landmark megaproject involving 33 nations, which aims to demonstrate the scientific and engineering feasibility of sustained nuclear fusion via magnetic confinement using the tokamak approach. ITER serves as a central testbed for integrated plasma physics, superconducting magnet systems, tritium breeding strategies, and power handling technologies—laying the groundwork for future demonstration plants. India, being one of the members of ITER organization, is advancing ahead with emerging private fusion companies and leading supply chain. Concurrently, the emergence of over 40 private fusion ventures—including leading firms like TAE Technologies, Commonwealth Fusion Systems, and Helion Energy—signals a paradigm shift. These companies are leveraging compact designs, novel confinement approaches (e.g., field-reversed configurations, magneto-inertial fusion), and advanced

materials. This talk will underscore the critical function of the ITER Private Sector Fusion Engagement initiative in driving fusion forward as a cornerstone of the global clean energy transition and discusses the pathways for collaborative effort for faster fusion commercialization.

AIC-IPR at i-Hub Healthcare Innovation Meet



Audience attending the Talk

I-Hub Gujarat, an incubator established as section 8 company by the Government of Gujarat has been supporting startups in several sectors. A startup event on 'Healthcare Innovation' was organized on July 18, 2025 by i-Hub at KCG Campus, Ahmedabad where several ecosystem key dignitaries were invited along with various startups from the healthcare sector. The event was initiated with an inaugural session where dignitaries like Dr. A. M. Kadri, Exe. Director - SHSRC-G; Dr. Mehul Shah, President IMA Gujarat; Dr. Urvesh Shah, Secretary - IMA Gujarat; Dr. Pankaj Nathwani, Consultant - Zydus Hospitals and Dr. Nirav Jamnapara were invited for inaugural note. Dr. Jamnapara presented an overview of IPR's R&D & technological updates to the attendees and showcased a number of healthcare innovations developed by IPR. Introduction about IPR's Atal Incubation Centre was also done for interested startups to approach. Dr. Kaushik Choudhury, CEO of AIC-IPR Plasmatech Innovation Foundation and Mr. Deepak Assudani, Technical Officer - C, PTTS were also present during the meeting. The interaction was fruitful and a number of startups and ecosystem facilitators and mentors

expressed their desired to interaction with IPR & AIC-IPR for relevant technology development needs.



AIC-IPR at i-Hub Healthcare Innovation Meet

Second National Conference on Light Matter Interaction at Nanoscale (LMIN-2025) at IGCAR

LMIN-2025 organized between July 17-19, 2025 at IGCAR, Kalpakkam, focused on cutting-edge developments in nanoscale optical microscopy, plasmonics and photonics for applications across materials science. The conference was attended by leading scientists and students from all over India.



Few glimpses of LMIN-2025

Two-Days meeting on DeepCXR at IPR

A 2-day meeting for DeepCXR -AI Screening Tool for Indian population under National Program of India was hosted at IPR during July 24-25, 2025. Collaborators from ICMR Head Quarter, Delhi and other participating Institutes of VPCI Delhi, AIIMS Delhi, AIIMS Bhopal, GMC Ratlam, SCB Cuttack, Orissa, GMC Agartala, KGMU Lucknow, ICMR-NIRT Chennai, MGIMS, Wardha, ICMR-NIIH, ICMR-NIIRNCD, Jodhpur, IGGMC, Nagpur, IMS, Rohtak &

NIOH Ahmedabad visited IPR to discuss enhancement of DeepCXR as an AI diagnostic Tool of India.

The meeting started with a welcome address by Dean Administration and Dean R & D, IPR who apprised all investigators about IPR activities with a special focus on Fusion research and its applications. This was followed by an inaugural presentation by Mrs. Manika Sharma, IPR on the progress in the development of DeepCXR including deployment of version 1.1 in the NTEP program across peripheral health institutions across six states. Dr. Nirav Jamnapara delivered a presentation on diverse medical technology developments of IPR/FCIPT.

This 2-day meeting focused on the discussions regarding training of the AI for differentiating TB/NTB category and on plan of data collection from all sites. There were presentations with an overview of current challenges, the target sensitivity and specificity which needs to be achieved for AI as a diagnostic test and the shortfalls in CXR images for different categories of TB/NTB which needs to be completed. This was followed by deliberations and discussions involving all investigators, experts, and the IPR AI development team. IPR facilitated visit to Tokamak Aditya-U for all the site investigators. The meeting concluded with a vote of thanks.



Participants of the DeepCXR meeting at IPR

Innovation Talks - Expert Lecture Series at IPR

The Institute Innovation Council of IPR in association with Homi Bhabha National Institute (HBNI) and IPR's Atal Incubation Centre - Plasmatech Innovation Foundation organized an innovation talk series expert lectures on the following topics:

(a) Talk on "Safeguarding IP for Deeptech Innovations" by Shri P. R. Dani, IP expert on August 07, 2025: The talk was aimed at safeguarding the intellectual property for deeptech innovations which act as a moat for long gestation innovations and can also act as revenue enabler in future. The talk by Shri Dani showcased what stage patenting should be done and how securing IP based on territorial markets could strategize the country of interest and the procedures and policies so involved. The talk was attended by 40+ participants including students, faculty member and researchers.

(b) Talk on "Enabling Deeptech Innovations - Experience with AIC- Pi Hub" by Dr. Christ P. Paul, Director & Head of AIC-Pi Hub, RRCAT, Indore on August 08, 2025: The talk was attended by over 50+ participants comprising of Ph.D. students, post-doctoral fellows, researchers and startup enthusiasts. The expert talk explained how deeptech innovation ecosystem has been garnered in RRCAT, DAE and how complex science innovations are enabled through several collaborations ranging from laser-based metal 3D printing to sensor technology



Audience attending the Innovation Talks - Expert Lecture Series

BRMBCNQ at IGCAR

Dr. Baldev Raj Memorial Bridge Course on Non-destructive Evaluation & Quality Assurance (BRMBCNQ) was organized by IGCAR in collaboration with Indian Society for Non-destructive Testing (ISNT), Kalpakkam Chapter during August 18-22, 2025.



Few glimpses of BRMBCNQ-2025

Workshop on Advances in Environmental and Radiological Monitoring, Radiation Dosimetry and Emergency Preparedness (AEMRDS 2025) at IGCAR

A 2-day workshop on "Advances in Environmental and Radiological Monitoring, Radiation Dosimetry and Emergency Preparedness (AEMRDS 2025)" was conducted by SQRMG, Indira

Gandhi Centre for Atomic Research in association with the Indian Association for Radiation Protection during August 25-26, 2025 at IGCAR, Kalpakkam. Dr. Dinesh Kumar Shukla, Chairman, AERB graced the occasion as Chief Guest. The workshop was attended by nearly 75 delegates from BARC, IGCAR, AERB, NPCIL, Bhavini, and other universities.



Few glimpses of AEMRDS-2025

HRI Physics Day

HRI Physics Day 2025 was organized on September 11, 2025 at the HRI Auditorium. The event featured seven talks delivered by HRI faculties, showcasing diverse 'Flavors of Physics.' The program proved to be highly engaging, as the lectures were enriched with insightful narratives, concepts of scientific discovery, and discussions on advancements in research across various domains of physics.



Participants during the lecture delivered by HRI Director Prof. Ujjwal Sen on the occasion of HRI Physics Day

Plasma Exhibition at DAE Convention Centre, Anushaktinagar, Mumbai by IPR

IPR Outreach Division (ORD) conducted Plasma Exhibition at the DAE Convention Center, Anushaktinagar, BARC Mumbai from October 06-11, 2025. It was hosted jointly by the DAE Outreach and the Atomic Energy Central School-3. The exhibition was inaugurated by the guest of honour Shri K. Jayakumar (Controller BARC) where Dr. G. Sugilal (Associate Director, Nuclear recycle Group) presided over inauguration function. IPR Dean R&D Dr. Paritosh Chaudhuri delivered the introductory speech. Head ORD, Dr. N. Ramasubramanian detailed the outreach activities and structure of plasma exhibition event. More than 30 exhibits, which included live plasma gadgets, posters and models were displayed and local students were trained to explain about them to the visiting school students, teachers as well as the families of DAE employees staying in Anushaktinagar. General knowledge quiz for the school students and plasma orientation lectures for about 40 school teachers were also organized. These lectures were delivered by the IPR ORD team. More than two thousand visitors visited and found the exhibition very exciting. DAE has put the inauguration function and the highlights of the plasma exhibition on their social media handles.



(L-R) Shri K. Jayakumar, Dr. G. Sugilal and Dr. Paritosh Chaudhuri delivering speech during the inaugural ceremony

India Fusion Day at ITER Organization

India Fusion Day was held on October 07, 2025 at ITER Organization on the theme “Celebration of Indian Contributions”. Padma Bhushan Dr. Vijay Kumar Saraswat, a distinguished Indian scientist and member of NITI Aayog visited the ITER Organization in France to commemorate the event. During the visit, Dr. Saraswat engaged in in-depth discussions with Mr. Pietro Barabaschi, Director General of the ITER Organization, and other leading scientists. The dialogue focused on the progress of the ITER Project and India’s

contributions to this landmark international collaboration in fusion energy. Dr. V. K. Saraswat was accompanied by Mr. Ujjwal Kumar Baruah, Project Director of ITER-India.



Dr. V. K. Saraswat (4th from left) with Mr. Pietro Barabaschi, DG ITER Organization (3rd from left) and other participants

Ph.D. Postdoc Math Meet at HRI

The PhD–Postdoc Mathematics Meeting for this semester was held on November 15–16, 2025. This biannual event aims to bring together graduate students and postdoctoral researchers to present lectures on their respective areas of research. The meeting serves as an important platform for academic exchange, allowing participants to gain exposure to a broad range of mathematical disciplines beyond their own specializations. In addition, it encourages meaningful discussions and interactions among participants, fostering a collaborative research environment and creating opportunities for future interdisciplinary collaborations.



Participants of Ph.D. & PDF Math Meet at HRI

Other Events at CIs and OCCs of HBNI

Independence Day Celebration at CIs and OCCs

The 79th Independence Day was celebrated at our CIs and OCCs on August 15, 2025 with great enthusiasm.



Few glimpses of Independence Day Programme at IGCAR

Independence Day was celebrated at the HRI Campus with a solemn oath to uphold progressive values and contribute to the scientific advancement of the nation. Members of HRI, Prayagraj, participated in the program with great enthusiasm and patriotic spirit.



HRI Members with vibrant celebrations on Independence Day

Anti-ragging week (August 12-18, 2025) at CIs and OCCs

As per the directions of the University Grants Commission (DO. No. 1-74/2016-ARC Dated 22 July 2025), IPR observed the Anti-Ragging Week from 12th-18th August 2025 with the objective of sensitizing students about the harmful effects of ragging, promoting a healthy campus environment, and strengthening peer bonding. In order to execute the activities during this week, IPR Director constituted an Anti-Ragging Committee. Anti-ragging week commenced with a formal inaugural session by lighting of lamp and Saraswati vandana by students on August 12, 2025. The inaugural session commenced with a presentation on the governmental framework on Anti-ragging by Dr. Ritesh Sugandhi. Eminent guest speakers Dr. Jyotsna Yagnik (Retired High Court Judge and Academician in the field of Law) and Dr. Vipin Rana (Retired Professor, Gujarat University), were invited to address our research scholars and faculties. The speakers highlighted the legal implications of ragging, its psychological consequences, and the significance of cultivating mutual respect and cooperation among peers. Dr. S. Mukherjee (Dean Administration) and Dr. Daniel Raju (Dean Academic) highlighted the various initiatives taken for the well-being of scholars during their PhD journey. Anti-ragging pledge was administered by Ms. Nidhi Pande (Student representative) as per the UGC directions. The program concluded with a vote of thanks from Dr. Alphonsa Joseph (Chairperson, Anti-ragging Committee).



(L-R): Lighting of lamps by Dr. Jyotsna Yagnik (Chief Guest), Dr. S. Mukherji (Dean-Administration), Dr. Vipin Rana (Guest of Honour) and Dr. Alphonsa Joseph (Chairperson, Anti-ragging Committee) during Anti-ragging Week program at IPR

An interactive ice-breaking session was organized on Day 2, for all the research scholars, both for the freshers and senior research scholars. IPR's Dean Academic, Dr. Raju Daniel (Dean Academic, IPR) constituted a "Peer Mentoring & Support Network group" to enhance better interactions, support and guidance for our fresh research scholars. The senior research scholars were first introduced to the freshers.



Group photograph during Anti-ragging Week program at IPR

Later, throughout the session, fun activities, quiz competition and group interactions were conducted for the students wherein they got the opportunity to get to know one another in an informal and positive setting. This helped them in removing inhibitions and strengthening the bond between seniors and juniors. More than 50 research scholars participated in this session.

Creative competitions were conducted on Day 3, to spread the anti-ragging message by Mr. Tejas Parekh and Ms. Shilpa Khandekar, and they were:

- Quiz Competition
- Slogan writing
- Extempore speeches on the theme of anti-ragging
- Research proposal competition on humorous themes

These activities encouraged students to express their views against ragging in innovative ways, ensuring deeper engagement with the cause. About 30 students participated in this competition.



Quiz competition by Dr. Alphonsa Joseph during Anti-ragging Week program at IPR



New students expressing themselves during Ice-breaking session during Anti-ragging Week program at IPR



Participant of Research proposal challenge competition during Anti-ragging Week program at IPR



Participant of Extempore competition during Anti-ragging Week program at IPR



Judges (Dr. N. Ramasubramaniam, Dr. V. P. Anitha, Dr. R. Singh) in Action (L-R, 1st Row) during Anti-ragging Week program at IPR

To culturally connect research scholars, the festival of Janmashtami was celebrated jointly by freshers and seniors in IPR Hostel. The celebration ensured the healthy interaction between seniors and juniors and the spirit of creativity and teamwork were fostered.

The concluding session of Anti-ragging celebration of Day 5 commenced with the presentation by Dr. Alphonsa Joseph, highlighting various events and activities during Anti ragging week. Dr. Tapas Ganguli (Director, IPR) was the chief guest of the concluding session. He interacted with research scholars and encouraged them to joy of contribution in science during their research journey. He also distributed prizes to winners of various competitions. The session concluded with vote of thanks from Dr. Jinto Thomas followed by feedback from new scholars. Dr. Nitin Bairagi hosted the concluding session.



Dr. Tapas Ganguli (Director, IPR) distributing prize to winner



Dr. Jinto Thomas delivering vote of thanks



Ms. Nidhi Pandey (Student representative) reciting poem during Anti-ragging Week program at IPR

The main outcomes of the celebration of Anti-ragging were: student awareness of the legal and disciplinary actions against ragging, healthy interaction between seniors and juniors, cultivate creativity and teamwork and finally, a strong message reinforcing a zero-tolerance policy towards ragging.

At IoP Bhubaneswar also, the anti-ragging week was celebrated on August 18, 2025. The event saw participation from all students, faculties, and Director Prof. K. K. Nanda, Institute of Physics, Bhubaneswar. During the meeting, Prof. Nanda discusses the importance of fostering a healthy atmosphere on campus and upholding minimum ethical standards to combat ragging. Prof. T. Som, who serves as the chairman of the academic council, discussed various strategies aimed at addressing the issue of ragging and promoting healthy interpersonal relationships among students at the Institute of Physics. It is important to note that ragging is strictly forbidden both on the Institute's campus and in surrounding areas. The Anti-Ragging Committee has been actively involved in initiatives within the Institute. Additionally, members of this committee have been provided counselling services to the newly admitted pre-doctoral students for the academic year 2025-2026, ensuring a supportive environment for all.



Photographs during the Anti-Ragging Week celebration on August 18, 2025 at IoP

HRI Prayagraj strictly celebrated Anti-Ragging Day on August 12, 2025 with newly admitted students. Anti-ragging posters were displayed at prominent locations across the campus throughout the week of August 12-18, 2025 reinforcing awareness and promoting a safe, inclusive environment."



New Students with a faculty during the anti-ragging program at HRI

HRI upholds a zero-tolerance policy towards ragging. Newly admitted students took the Anti-Ragging Oath, pledging to uphold respect, dignity, and harmony, marking the start of their academic journey in a safe and ragging-free campus.



Students and faculties during the anti-ragging pledge administration at HRI

TMC Mumbai, successfully observed Anti-Ragging Week at the HBB 13th Floor Auditorium. The week was marked by various awareness activities and initiatives aimed at promoting a ragging-free, safe, and respectful environment on campus. Active participation from students, faculties, and staff highlighted the collective commitment to upholding dignity and mutual respect within the institution. The theme of the program was “Say No to Ragging – Yes to Respect, Harmony, and a Safe Learning Environment”. The programs were conducted with the objective to reaffirm Tata Memorial Centre’s commitment towards maintaining a ragging-free campus, sensitize students, faculties, and staff about the ill effects of ragging on mental health, dignity, and academic growth, strengthen preventive measures, grievance redressal mechanisms, and awareness as per UGC and National Anti-Ragging Committee directives, foster a culture of mutual respect, inclusivity, and peer support and empower students to be ambassadors of a ragging-free environment. The Anti-Ragging Week was observed to highlight the significance of creating a safe and inclusive campus environment at Tata Memorial Centre. Through awareness sessions, pledge taking, slogan writing, and interactive activities, the program aimed to educate students about legal implications and institutional zero-tolerance towards ragging, promote awareness of anti-ragging helplines and redressal mechanisms, reinforce positive campus culture that supports diversity, equality, and well-being.

Gallery of the Participants during Anti-ragging Week program at TMC

Poster Presentation

Hello, myself Ms. Swastika Mishra from 2nd Year Clinical Research. I am here to speak about Anti- Ragging. This was part of my Anti-Ragging activity, which was conducted at Tata Memorial Centre, Mumbai. This message I would like to spread through my poster. My Poster Speaks how heartfelt words can affect someone's emotions as well as self-respect. The crying face is saying stop bullying. Down the face are some words, which are very heartfelt in someone’s life. The gradient in the background, which shows from warm colour to dark colour, shows how the transformation of emotions takes place while someone receives a bad word. The Hashtag (#) Anti Ragging plays a platform that connects a safe environment for all of us. I would like to say a message that “Words are very Powerful, Choose them wisely.”





Essay Competition



I am Ms. Vaidahi Singh, 2nd Year Student of M.Sc. Clinical Research and for the Anti Ragging week 2025, I have jotted down my points in formal essay. In this essay I have included the forms of harassment that the students face. In this essay I am also highlighting the story to enlighten further my points about inspiring students who enter the college and faced with ragging how she tolerates on ragging and does not voice out because she is scared of repercussions. Later on how it is found by all her peers and they decided to raise their voice against it. The essay really highlights the implementation of the awareness policy and no ragging tolerance structure we should build in all our Institutions. Lastly, I would like to say that I am proud to be a part of an Institution that is not having ragging culture and ragging is nowhere to be seen in my Institution. Thank you.



Participants during the Anti-ragging Week program at TMC, Mumbai



Participants during the Anti-ragging Week program at TMC, Mumbai

Swachhata Campaign 5.0 at CIs and OCCs

Swachhata Campaign 5.0 “Swachhotsav in Action – Ek Din, Ek Ghanta, Ek Saath” was organized at HRI between September 17-October 02, 2025. As part of the nationwide #SwachhataHiSeva2025 initiative, HRI actively collaborated with citizens and sanitation workers in a dedicated cleanliness drive. Students, faculties, officials, and outsourced staff worked together to meticulously clean the area stretching from HRI’s main gate to the Bank of the Ganga River. This collective effort exemplifies #JanBhagidari, contributing towards a cleaner, greener, and healthier India.



Members of HRI actively participating in the Swachhata Campaign 5.0

Vigilance Awareness Week at CIs and OCCs

Vigilance Awareness Week (VAW) was organized at IGCAR between October 25 - November 02, 2025. As part of the program, various activities were carried out such as workshop on Conduct Rules for the New Entrants, various competitions including Essay Writing and Extempore speech on the topic "Vigilance: Our Shared Responsibility" as well as Slogan, Poster, and Skit competitions focused on vigilance awareness, Administration of the Vigilance

Pledge, workshop on Investigation and Framing of Charge Sheets for the administrative staff. The valedictory function featured a special address on "Vigilance: Our Shared Responsibility & Cyber Security" by the Chief Guest, Shri M. Sundaravel, Superintendent of Police (Retd.), CBI.

Vigilance Awareness Programme was held in HRI October 31, 2025. All HRI members collectively took the integrity pledge. During the ceremony, participants reaffirmed their



HRI Members on the occasion of Vigilance Awareness Program

commitment to honesty, transparency, and ethical conduct in all official and personal responsibilities. The oath emphasized the importance of remaining vigilant against corruption, promoting accountability, and contributing to the development of a corruption-free work environment at HRI.

VAW was also observed at IPR during October 27- November 02, 2025. As part of the VAW and strong commitment to honesty and integrity, effective code of conduct, and good ethical practices, the staff members took the Integrity pledge on October 27, 2025. The Integrity pledge was administered by the Director and the Chief Vigilance Officer (CVO), in Hindi and English respectively. The CVO also urged the staff to take online integrity pledge on the Govt. of India's Central Vigilance Portal. Shri V. V. Lakshmi Narayana IPS (Retd), former Joint Director, CBI Hyderabad and former ADGP, Mumbai gave a talk on "Integrity and vigilance in scientific research: safeguarding national assets and public trust" on October 14, 2025 at IPR. He emphasized the importance of maintaining high integrity and ethical values, especially for the scientific community as they are the role models for the society at large. On October 28, 2025, a talk titled "Vigilance Clearance: What and When" was delivered by the Chief Vigilance Officer, Dr. N. Ramasubramanian. He discussed the concept of Vigilance Clearance applicable to the Institute. The informative talk was attended by a large number of staff members. Shri C.P. Zinzuvadiya (Retired Deputy Secretary and Visiting Faculty in Vigilance matters) delivered a talk on "Vigilance- Our Shared Responsibility" on October 30, 2025 at IPR Seminar Hall.

Under the Vigilance Awareness Programme, a Nukkad Natak was organised at the institute on November 06, 2025. The theme of the play was "Be Alert, Be Cautious – Avoid Digital Fraud." The street play aimed to create awareness about the increasing incidents of digital fraud and to educate participants on preventive measures in day-to-day digital transactions. The institute

staff delivered an impactful and effective performance, highlighting the various forms of digital fraud, their consequences, and the precautions individuals should take to safeguard themselves.



IPR Staff members taking the Integrity pledge

Hindi Week and Hindi Pakhwada at CIs and OCCs

हरीश-चन्द्र अनुसंधान संस्थान में राजभाषा अनुभाग द्वारा 14 से 21 सितंबर, 2025 तक हिंदी सप्ताह के अंतर्गत हिंदी निबंध लेखन, कविता, कहानी, नाटक एवं चुटकुला प्रतियोगिताओं का आयोजन किया गया, जिसमें लगभग 50 बच्चों एवं 15 कर्मचारियों ने सक्रिय सहभागिता की। इसका उद्देश्य सरकारी कार्यों में हिंदी के प्रयोग को प्रोत्साहित करना तथा हिंदी भाषा के प्रति जन-जागरूकता बढ़ाना है। इस प्रकार के कार्यक्रमों से न केवल हिंदी के प्रयोग को बल मिलता है, बल्कि कर्मचारियों एवं शोधकर्ताओं में भाषाई चेतना भी जागृत होती है।



हिंदी सप्ताह के आयोजन के दौरान हरीश-चन्द्र अनुसंधान संस्थान के निदेशक प्रो. उज्ज्वल सेन के द्वारा सम्मानित प्रतिभागी

The Hindi Pakhwada Celebration 2025 was organized with great enthusiasm at IPR during September 16-26, 2025. During this period, various competitions and special talks were



Dr. Tapas Ganguly, Director IPR, addressing the Staff members



IPR Staff members attending the program



Panel Discussion at IPR

Administration Section-1 receiving the Official Language Shield at IPR

successfully conducted to encourage the use, promotion, and creative expression of the Hindi language. Scientific, technical, and administrative staff participated actively in these events. Many participants took part in various competitions like noting, letter writing and translation, “picture-based story writing,” Hindi essay writing, Hindi quiz, extempore speech, recitation of self-composed poems, and singing. These competitions played an important role in enhancing the participants’ language skills, creativity, and ability to express themselves in Hindi. The celebration concluded with a “Chai Par Charcha” session and prize distribution ceremony. The panel discussion was held on fusion energy and India’s future role. Overall, the event successfully encouraged the use of Hindi and created a positive and motivating atmosphere in the institute.

Hindi Pakhwada was also celebrated at IoP September 09, 2025.



Valedictory function of the Hindi Pakhwada at IoP

Outreach Activities at CIs and OCCs of HBNI

An outreach programme on the theme of “Plasma Science and its Application” was conducted by CPP-IPR’s Outreach Cell at Pandit Deendayal Adarsha Mahavidyalaya, Amjonga, Assam on August 19, 2025. The workshop was attended by 4 faculties and 48 students of the Physics Department of the college. Dr. B. J. Saikia, Dr. Rakesh Moulick and Dr. Ngangom Aomoa gave talks on various aspects of plasma physics followed by live demonstration of glow discharge plasma, arc plasma, Jacob’s ladder and a plasma globe.



Students, Faculty member and CPP-IPR Outreach Team at Pandit Deendayal Adarsha Mahavidyalaya, Amjonga



An outreach programme was organized by IoP at Talcher (Autonomous) College on September 06, 2025 for the students of Talcher College and Utkalmani Gopabandhu Mahavidyalaya, Khamar. Around 100 students of both the colleges attended the programme. Prof. K. K. Nanda inaugurated the programme and delivered a talk on “Science in society”. Dr. S. N. Sarangi and Dr. K. C. Patra delivered scientific talks on Nanomaterials and Ion-beam research in India.



Prof. Nanda during a session at Talcher Autonomous College



Odia newspaper clip for the outreach Program at Talcher Autonomous College

An outreach programme on the theme of “Frontiers of Plasma Science: Fundamentals and Applications” was conducted by CPP-IPR’s Outreach Cell at Royal Global University, Guwahati on September 12, 2025. The workshop was attended by 10 faculties and 70 students of Physics, Chemistry and Mathematics Department of the university. Dr. Rakesh Moulick and Dr. Ngangom Aomoa gave talks on various aspects of plasma physics followed by live demonstration of glow discharge plasma, arc plasma, Jacob’s ladder and a plasma globe.



CPP-IPR Outreach Team with Faculty member and Students at the Royal Global University, Guwahati

Exposure visits were organized for students from various schools at IoP. Around 60 students and 10 teachers from JNV, Odisha and JNV, Chhattisgarh visited IoP on November 11, 2025. The students were the best ones from each JNV. Prof. K. K. Nanda, Director, IoP, Bhubaneswar presented a talk on “Historical Journey of Clinical Thermometers”.



Students from various schools visiting IoP

A Science outreach programme was organized by IoP in association with Gadtal Regional High School for +2 Science students. The programme was inaugurated by Prof. K. K. Nanda, who delivered a talk on “Historical Journey of Clinical Thermometers” on demand. Around 150 students attended the programme.

A one-day program was organized by IoP at Utkalmani Gopabandhu Mahavidyalaya, Khamaron for +2 & +3 Science students October 12, 2025. Prof. K. K. Nanda, Director, IOP, Bhubaneswar presented a talk on Future Sources of Energy, keeping sustainability in mind. Around 100 students participated in the program.

A science outreach programme with theme “I will also be a Scientist” was organized for high school students on November 10, 2025 by IoP. The programme was conducted in Odia. Around 200 students from 12 schools attended the programme. Prof. Karuna Kar Nanda, Dr. S. N.



Photograph of inaugural session of Science Outreach Program at Gadtal regional High School, Angul

Sarangi and Dr. B. Mallick delivered talks on different topics. At the end, Dr. Mallick demonstrated fun science experiments with liquid nitrogen.



A sky-view programme was organized by IoP at G M University, Campus on December 27, 2025. Through advanced telescopes, more than 300 students/faculty members of G M university, G M High secondary school, other nearby schools, colleges, large number of localities of all ages, parents of the students etc. viewed Moon, Saturn, Uranus, Jupiter etc. with very high magnification through the advanced telescopes. The program was jointly organised by the Institute of Physics, Bhubaneswar; G M University, Sambalpur; Sambalpur University Burla; G M Higher secondary school. All the convenors were present in this event along with their faculty/staff/scientist colleagues to manage the event in a very interactive way to make it a memorable event.



ଘୋର ଯୋଜନା (ନିମ୍ନ): ପଦାଧି ବିଜ୍ଞାନ ପ୍ରଚାରଣ ଦ୍ୱାରା ଆୟୋଜିତ ଓ ଘୋର ରାଧାନାଥ ବିଦ୍ୟାଳୟରେ ଅନୁଷ୍ଠିତ 'ମୁଁ ବି ବୈଜ୍ଞାନିକ ହେବି' ଶୀର୍ଷକରେ ଏକ ବିଦ୍ୟାର ବିଜ୍ଞାନ କର୍ମଶାଳା ଆୟୋଜିତ ହୋଇଯାଇଛି । ଏହି କର୍ମଶାଳାକୁ ଉଦ୍‌ଘାଟନ କରିଥିଲେ ଭୁବନେଶ୍ୱର ପଦାଧି ବିଜ୍ଞାନ ପ୍ରଚାରଣ ନିର୍ଦ୍ଦେଶକ ପ୍ରଫେସର କରୁଣା କର । ତ. ସଚ୍ଚିଦ୍ରନାଥ ଉଦ୍‌ଘାଟନ ଓ ଡ. ବିଶ୍ୱଜିତ୍ ମଲ୍ଲିକ 'ବିଜ୍ଞାନ ଓ ଦୈନିକ ଜୀବନ', 'ପରିବେଶ ସୁରକ୍ଷାରେ ବିଜ୍ଞାନୀଙ୍କ ଭୂମିକା' ଏବଂ 'ନୂତନ ଯୁଗରେ ବିଜ୍ଞାନ ଶିକ୍ଷାର ଅଗ୍ରଗତି' ବିଷୟରେ ଆଲୋଚନା କରିଥିଲେ । ପ୍ରଫେସର ନନ୍ଦ ଆଧୁନିକ ସମାଜର ଉନ୍ନତି ପାଇଁ ବିଜ୍ଞାନ ଓ ପ୍ରଯୁକ୍ତି ବିଦ୍ୟାର ଭୂମିକା ଅନନ୍ୟ ବୋଲି ମତବ୍ୟକ୍ତ କରିଥିଲେ । ଘୋର ଆଖପାଖ ଅଞ୍ଚଳର ଚିନିଷର ଛାତ୍ରଛାତ୍ରୀ ଆଗସ୍ତରଣ କରିଥିଲେ । ପ୍ରଧାନ ଶିକ୍ଷୟିତ୍ରୀ ରୁଣୁବାଳା ଦାସ ଧନ୍ୟବାଦ ଅର୍ପଣ କରିଥିଲେ ।



Photographs with students who attended the programme “I will also be a Scientist” at IoP (Top left) and the image of newsclip in Odia newspaper on November 10, 2025.



Students watching the sky using advanced telescope at IoP

Two-day hands-on basic science camp was arranged by IPR for the following: School students (Class 7, 8 and 9) on November 20-21, 2025; School students (class 10, 11 and 12) on November 27-28, 2025. The students were given basic experimental demonstration of physics experiments related to concepts of direct and alternating voltage sources, chemical cell, different cells, materials, resistance, colour coding, electromagnetism, EM induction and pulleys mechanical advantage.



Glimpses of the Science Camp at IPR

An outreach event called Science Inspiration Day was organized on December 22, 2025 at HRI on the occasion of National Mathematics Day. A total of 25 girl students from Government Girls College, Saidabad participated in the program. The participants attended lectures in Mathematics and Physics, where they were informed about the importance of Mathematics in today's world. Various career opportunities in the fields of Mathematics and Physics were also explained. In addition, the students were taken on a library visit, and several Physics experiments were demonstrated to enhance their understanding and interest in the subject.



Participants of Science Inspiration Day at HRI

Other activities organized at CIs and OCCs

Undergraduate Internship programme at CPP-IPR

CPP-IPR conducted Under Graduate Internship Program between July 1-18, 2025. This was organised in response to the request from various colleges and universities of Assam to conduct such a relevant to the field of plasma science and technology. It consisted of lectures, laboratory visits and minor projects. The program was attended by 42 participants from 5 colleges and 3 universities. program for their undergraduate students as required under the National Education Policy (NEP) 2020. The program was designed to give an exposure to theoretical and experiments works.

The SPIC-MACAY HRI chapter- ‘Santoor recital’

The SPIC-MACAY HRI Chapter is a series of cultural programs organized by HRI from time to time to promote India’s rich artistic heritage. As part of this initiative, Pt. Abhay Rustum Sopori, an acclaimed Indian Santoor player and one of the youngest recipients of the ‘Bharat Shiromani Award’ and the ‘Ustad Bismillah Khan Yuva Puraskar,’ delivered a soulful and memorable classical performance on the Santoor on September 03, 2025 at the Auditorium of HRI, Prayagraj.



Undergraduate Internship Programme at CPP-IPR, Guwahati

National Sports Day at HRI

On the occasion of National Sports Day, various sports activities were organized at HRI, between August 29-31, 2025 to celebrate the spirit of sports and fitness.



Participants of Football Match organised on the occasion of National Sports Day at HRI

National Sports Day Celebrations at IPR

National Sports Day (NSD) was celebrated at Institute for Plasma Research on August 31, 2025, as per directives from AICTE and HBNI. The program commenced with the welcome address and talk on the “Role of Major Dhyan Chand in Indian Sports” by Dr. Ritesh Sugandhi. He highlighted the role of Major Dhyan Chand in India’s domination in hockey, winning 7 out of 8 Olympic gold medals from 1928 to 1964. Major Dhyan Chand is known as the magician of Hockey and has 570 goals in 185 international matches to his credit. Then, the NSD pledge was administered by student representative, Shri Amudon Chingangbam, in English, and also in Hindi by Shri Sandeep Gupta (former sports secretary of the Staff club). Shri Nilesh Contractor, graced the occasion as chief guest and delivered the talk on “Fitness and Spirit of Sports”. Shri Nilesh Contractor has been representing IPR in various sports activities at institute and inter-institute tournaments during the sport journey, spanning over 20+ years. He was the captain of IPR’s cricket team and credited to bring two inter-institute cups to IPR, along with many other laurels to the institute. He is a regular marathon runner. In the talk, he highlighted the sports activities and infrastructure at the institute for the students, the role of physical fitness, and the necessity of healthy eating habits. Students were encouraged regarding the “Sunday on Bicycle” initiative of Government of India. The event concluded by a vote of thanks, followed by a hot and healthy breakfast at the Guest house.

Awareness Session by The Internal Complaint Committee (ICC) of HRI

The Internal Complaint Committee (ICC) members met HRI students and postdocs on September 02, 2025. The committee apprised the students about how it works, why it matters,

and how the students can reach out to ICC to ensure that the campus remains a safe and secure environment for learning and conducting high-quality research.



Awareness Session by The Internal Complaint Committee (ICC)- HRI

Talk on Writing Impactful Manuscript for Journal Publications at IPR

IPR Library organized a talk on "Writing an Impactful Manuscript for Journal Publication: Insights from an Author, Reviewer and Editor" on September 22, 2025 at IPR. The talk was delivered by Dr. Reeshab Goenka, Senior Scientific Editor, Energy Journals, Elsevier. The talk highlighted useful tips to write manuscripts suitable for journal publication. Insights from an author's, a reviewer's, and an editor's perspective, delineating the important aspects of the manuscript were shared. The talk also discussed about the Journal selection and submission, the peer review process and what to do in the face of rejection. It also discussed about scientific publishing ethics and more specifically the responsible use of AI in scientific writing. More than 80 participants attended the talk at IPR Seminar Hall and around 20 participants remotely joined the informative talk.



Participants attending the Talk on Writing Impactful Manuscript for Journal Publications at IPR

Rashtriya Ekta Diwas - Pledge Taking Ceremony at IPR

"Rashtriya Ekta Diwas", also known as National Unity Day, is observed on October 31st every year, to commemorate the birth anniversary of Sardar Vallabhbhai Patel. The year 2025 marks Sardar Patel's 150th Birth Anniversary. A pledge taking ceremony was organized at IPR as a mark of celebration on October 3, 2025. The pledge was solemnized by IPR staff members lead

the Director and the Acting Chief Administrative Officer, both in Hindi and English. The staff members passionately took the pledge and reinforced their commitment to strengthen the security, unity and integrity of the Nation.

Unveiling of product developed by incubated startup at AIC-IPR Plasmatech Innovation Foundation

Coldray Plasma Labs, a startup incubated with IPR's incubation center AIC-IPR Plasmatech Innovation Foundation has unveiled its product Coldray for treatment of chronic wound and diabetic foot ulcer. The product is developed using the platform of IPR's proprietary technology named Atmospheric Pressure Plasma Jet. This innovation marks an important step towards providing advanced, non-invasive treatment options for diabetic wound care - a critical need in the healthcare sector.

On this occasion, Director, IPR, Dr. Tapas Ganguli, Dean (Admin), Dr. S. Mukherjee and the members of the development team Dr. Alphonsa Joseph, Dr. Ramakrishna Rane, Mr. Akshay Vaid and Mr. Anand Vasani shared how APPJ enables controlled delivery of reactive plasma species at room temperature, offering a safe and effective method for accelerating wound healing, reducing infection, and improving patient outcomes. The Director, IPR also emphasized on the need of such translational activities wherein a research idea from the lab can be developed with the help of the industry and be brought to the public as affordable products.

Mr. Vrushal Phadnis, founder of the startup also addressed the gathering and reflected on the journey of developing the product from concept to prototype and finally to a market-ready medical device. He spoke about overcoming the technical challenges during the developmental stages, the importance of collaborative support from IPR, and the motivation to create a solution that can make a meaningful difference in the lives of patients.

M/s Coldray Plasma Labs have also showcased this product at the Emerging Science, Technology and Innovation Conclave (ESTIC) 2025 held during November 3-5, 2025, New Delhi organized by Department of Science and Technology (DST), India.



Unveiling of the product "Coldray" by Director, IPR

Celebration of National Entrepreneurship Day at IPR



IPR Staff members singing the Rashtriya Geet “Vande Mataram”

National Entrepreneurship Day is an opportunity to celebrate India’s dynamic entrepreneurial spirit and the country’s rapidly expanding start-up ecosystem. Joining the nationwide celebration, a special talk was held for research scholars of IPR on November 10, 2025, by the Institute Innovation Council (IIC) and the AIC-IPR Plasmatech Innovation Foundation. The session featured an insightful talk titled “Deeptech Plasmapreneurship” delivered by Dr. Kaushik Choudhury, CEO of the Plasmatech Innovation Foundation. Dr. Choudhury spoke about the vital role deep-tech startups play in nation-building and their contribution to the vision of Aatmanirbhar Bharat. He walked the audience through the entire innovation pathway -starting from identifying a creative idea, shaping it into an innovation, and finally transforming it into a commercially viable product.

Dr. Choudhury highlighted the inherently multidisciplinary nature of deep-tech product development, especially for plasmabased technologies. He discussed several key aspects of the innovation journey, including problem identification, intellectual property protection and patenting, forming the right team, securing funding, and assessing technology readiness levels. To inspire young innovators, he also shared real-world examples of plasma technology-based products that have successfully transitioned from research laboratories to industry. The seminar concluded with an engaging Q&A session, reflecting the keen interest of the audience. Overall, the event served as a motivating and insightful experience for students, researchers, and aspiring entrepreneurs at IPR

Celebration of 150th Anniversary of Vande Mataram

As per the directives of the Ministry of Home Affairs, Government of India to commemorate 150 years of the Rashtriya Geet, “Vande Mataram”, through a year-long programme from November 07, 2025 to November 07, 2026, HRI members participated in the nationwide celebration for the 150th anniversary of "Vande Mataram" on November 07, 2025.

IPR staff members also enthusiastically participated in a collective recitation of Vande Mataram on November 13, 2025. The sound of our national pride echoed throughout the campus.



Celebration for the 150th anniversary of Vande Mataram at HRI Auditorium

Workshop on Springer Nature OA Agreement under ODOS Consortium by IPR

IPR Library in collaboration with Springer Nature, organized a workshop session on the Open Access (OA) Agreement under One DAE One Subscription (ODOS) consortium on November 13, 2025. The session highlighted various aspects of OA publishing with special emphasis on the benefits of OA agreement under ODOS.



Mr. Neeraj Karandikar from Springer Nature conducting the session at IPR

Constitution Day Program at HRI

“Samvidhan Diwas (Constitution Day)”, is observed on 26th November every year, to commemorate the adoption of the Constitution of India. On November 26, 1949, the Constituent Assembly of India adopted the Constitution of India, which came into effect from January 26, 1950. A pledge taking ceremony was organized at IPR as a mark of celebration on November 26, 2025. The pledge was solemnized by IPR staff members lead by the Director and the Acting Chief Administrative Officer, both in Hindi and English. The staff members passionately took the pledge, reaffirming their allegiance to the constitution and upholding the Nation’s integrity.

On the occasion of Constitution Day, HRI members also took the oath of the Preamble to the Constitution at the HRI Auditorium.



HRI members taking the oath of the Preamble to the Constitution on Constitution Day

ExpoTech' 2025 at IGCAR

ExpoTech' 2025 was organized jointly by IGCAR, AIC IGCAR FAST Foundation, StartupTN and HBNI during November 27-28, 2025 at IGCAR. The two-day meeting was primarily organized for exposing IGCAR's spin-off technologies available for incubation/transfer to TN based start-ups associated with StartupTN and was a follow-up of the recent MoU signed between AIC IGCAR FAST Foundation and StartupTN in October, 2025.



Few glimpses of ExpoTech' 2025 at IGCAR

Awareness Programme on 'Sexual Harassment' at IGCAR

Awareness programmes on 'Sexual Harassment - A Brief Understanding & Discussion' with a special lecture by Dr. Kitheri Joseph, Regional Director, MRP & Former chairperson, ICC, IGCAR was organized at IGCAR on December 02, 2025



Few glimpses of Awareness Programme on 'Sexual Harassment' at IGCAR

Health Awareness Program on mammal bites (Dog bites) at HRI

HRI organized an “Awareness Program for Handling Mammal Bites, especially Dog Bites” on December 10, 2025. The session featured a lecture by Dr. Nidhi Mishra, who explained the key dos and don'ts for managing mammal bites, with particular emphasis on preventive measures, immediate first aid, and the importance of timely medical consultation. The lecture was followed by an interactive question-and-answer session, allowing participants to clarify doubts and discuss practical scenarios.



Participants in health awareness program on mammal bites at HRI

FemTech 2025–26 at IGCAR

Women in ISHRAE, in association with IWSA Kalpakkam Branch, organized the national event “FemTech 2025-26” on “Women in Technological Advances and Social Upliftment” on December 16, 2025. The event was presided over by Shri C. G. Karhadkar, Director, IGCAR. Dr. B. Amudha, Director, RMC Chennai and Dr. S. Rajeswari, Preventive Oncologist, Iswarya Hospital, Chennai, delivered special lectures during the program.



Few glimpses of FemTech 2025-26 at IGCAR



Awards and Honors received by HBNI Faculty

- 1) Prof. A. K. Mohanty, Secretary DAE and Chairman, AEC has been elected as a Fellow of The World Academy of Sciences (TWAS)-UNESCO.
- 2) Prof. U. Kamachi Mudali Vice Chancellor HBNI, has been elected as a Fellow of The World Academy of Sciences (TWAS)-UNESCO.
- 3) Prof. U. Kamachi Mudali, Vice Chancellor HBNI, received the “Solenis Bharat Ratna Prof C N R Rao Medal and CDS Award” and delivered the CDS Award Lecture, during CHEMCON- 2025.
- 4) Prof. A. Sen De, HRI has been elected as a Fellow of the National Academy of Sciences, India (NASI) for the year 2025.
- 5) Prof. S. N. Achary, BARC, has been elected as a Fellow of National Academy of Sciences, India (NASI) for the year 2025.
- 6) Prof. S. K. Agarwalla, IoP, has been elected as a Fellow of National Academy of Sciences, India (NASI) for the year 2025.
- 7) Prof. S. Gun, IMSc, has been elected as a Fellow of National Academy of Sciences, India (NASI) for the year 2025.
- 8) Prof. Sudeep Gupta, TMC, has been elected as a Fellow of National Academy of Sciences, India (NASI) for the year 2025.
- 9) Prof. M. Kumbhakar, BARC, has been elected as a Fellow of National Academy of Sciences, India (NASI) for the year 2025.
- 10) Prof. A. Prasad, IMSc, has been elected as a Fellow of National Academy of Sciences, India (NASI) for the year 2025.
- 11) Prof Meena B Mahajan, IMSc. Chennai has been elected as a Fellow of Indian National Academy of Sciences (INSA).
- 12) Prof. S. M. Yusuf, Director, CBSE, UM-DAE has been elected as a Fellow of Indian National Academy of Engineering (FNAE).
- 13) Prof. A. K. Tyagi, Dean HBNI received Lifetime Achievement Award from Rare Earth Association of India, Lifetime Achievement Award from Luminescence Society of India, N. R. Dhar Memorial Lecture Award of Indian Photobiology Society and M. G. Bhagat Memorial Lecture Award from Indian Ceramics Society in 2025.
- 14) Dr. Seemita Banerjee, BARC, has been selected for NASI Membership 2025 in Chemical Sciences.
- 15) Dr. Ruma Gupta, BARC, has been selected for NASI Membership 2025 in Chemical Sciences.
- 16) Dr. D. Samantaray, BARC, has been selected for NASI Membership 2025 in Engineering Sciences and Technology.



- 17) Dr. K. K. Singh, BARC, has been selected for NASI Membership 2025 in Physics.
- 18) Dr. Dr Y. S. Sen, BARC, became Fellow of Maharashtra Academy of Sciences in 2025 under Physical Sciences.
- 19) Dr. M. Tyagi, BARC, became Fellow of Maharashtra Academy of Sciences in 2025 under Physical Sciences.
- 20) Dr. A K. Yadav, BARC, became a Young Associate of Maharashtra Academy of Sciences in 2025 under Physical Sciences.
- 21) Dr. K. Bhattacharya, BARC, became Fellow of Maharashtra Academy of Sciences in 2025 under Chemical Sciences.
- 22) Dr. S. Mula, BARC, became Fellow of Maharashtra Academy of Sciences in 2025 under Chemical Sciences.
- 23) Dr. S. Chakraborty, BARC, became Fellow of Maharashtra Academy of Sciences in 2025 under Chemical Sciences.
- 24) Dr. R. Acharya, BARC, became Fellow of Maharashtra Academy of Sciences in 2025 under Chemical Sciences.
- 25) Dr. D. Satpati, BARC, became Fellow of Maharashtra Academy of Sciences in 2025 under Chemical Sciences.
- 26) Dr. B. Dutta, BARC, became a Young Associate of Maharashtra Academy of Sciences in 2025 under Physical Sciences.
- 27) Prof. S. Chatterjee BARC, became Fellow of Maharashtra Academy of Sciences in 2025 under Life Sciences.
- 28) Dr. M. Vasudevan, AD, MDTG appeared in the top 2% world ranking of scientists in career and year wise rankings published on September 19, 2025 by Stanford University and Elsevier publications. His name is listed every year in the rankings since 2020.
- 29) Dr. S. Chakraborty, HRI, has been selected for Society for Materials Chemistry (SMC) Bronze-2025 on August 2025.
- 30) Dr. Chanchal Ghosh, IGCAR, has been awarded DAE's Homi Bhabha Science and Technology Mannpatra for 2025.
- 31) Dr. Dibakar Goswamy, BARC, has been awarded DAE's Homi Bhabha Science and Technology Mannpatra for 2025.
- 32) Dr. Jyoti Prakash, BARC, has been awarded DAE's Homi Bhabha Science and Technology Mannpatra for 2025.
- 33) Dr. Rubel Chakravarty, BARC, has been awarded DAE's Homi Bhabha Science and Technology Mannpatra for 2025.
- 34) Dr. Deepak K. Sahoo, BARC, has been awarded DAE's Homi Bhabha Science and Technology Mannpatra for 2025.



Awards and Honors received by HBNI Students

- 1) Ms. Sunaina from VECC, Kolkata, received the Best Oral Presentation Award in 8th International Conference on Nanostructuring by Ion Beams (ICNIB - 2025) organized at Saurashtra University, Rajkot, Gujarat between October 7-9, 2025
- 2) Mr. Arpan Adak from VECC, Kolkata received the Award of Excellence in National Conference on Condensed Matter, Material Science and Statistical Physics organized by Presidency University, Kolkata between November 21-22, 2025
- 3) Ms. V. Athulya, SRF, IGCAR, received the Best Poster Award in ICECORR 2025 organized by ASNT India Section, AWS and AMPP Chennai Chapter at Le Méridien Kochi, Kerala between August 20-22, 2025.
- 4) Mr. S. Panneer Selvi, IGCAR, received the Best Poster Award Paper at the 79th Annual Technical Meeting of the Indian Institute of Metals organized in Hyderabad between December 3-6, 2025.
- 5) Mr. Vemuri Lakshmi Ganesh, SRF, IGCAR, received the Best Poster Award at the Theoretical Chemistry Symposium 2025 (TCS-2025), organised at the Indian Institute of Technology, Mumbai, between December 2-5, 2025.
- 6) Ms. Geethika B. R., IPR, received EPS/ PPCF/ IUPAP Student Poster Prize 2025 award at the 51st EPS Conference on Plasma Physics, Vilnius, Lithuania, July 7-11, 2025.
- 7) Ms. Geethika B. R., IPR, received Best Student Poster Award at Joint Conference of the 22nd International Conference on Atomic Processes in Plasmas (APiP 2025) and the NIFS Conference on Atomic and Molecular Processes in Plasmas organized in Tokyo, Japan between July 21-25, 2025.
- 8) Ms. Tarundeep Kaur, IPR, received the Best Oral Presentation award at 8th International Conference on Nanostructuring by Ion Beams (ICNIB-25) organized at Saurashtra University, Rajkot between October 7-9, 2025.
- 9) Mr. Abhay Bhisikar, RRCAT, received Best Presentation Award (3rd) by Diffraction Team at the 6th Asia-Oceania Forum for Synchrotron Radiation Research (AOFSRR) School-2025 organised at KEK, Tsukuba, Japan on October 23, 2025.
- 10) Mr. Ram Balak Yadav, IGCAR, received Best Oral Presentation Award at 4th International Conference on New Frontiers, Chemical, Energy and Environmental Engineering organized at NIT Warangal between June 25-26, 2025.
- 11) Dr. Gopinath Shit (Ph.D. student from IGCAR in Chemical Sciences) received the Best Ph.D. Thesis Award in the category of Corrosion Science & Technology by AMPP, India Chapter at CORCON 2025 organized in Jaipur, India between October 6-8, 2025.

Students

Paintings & Sketches

Creative Corner



Dr. Arunima Nagar
TMC
MD
HLTH09202209054



Ms. Kaninika De Sikdar
NISER
Ph.D.
APSA11202527002



Mr. Daksh
NISER
Int. M.Sc.
LIFE11202313008



Ms. Manika Gupta
IMSc
Ph.D.
MATH10202204002



Ms. Sradhanjali Rout
IGCAR
Ph.D.
PHYS02202404009

Students

Paintings & Sketches



Mr. Krishna Kumar Yadav
IGCAR
Ph.D.
ENGG02202204002



Mr. Anuj Sahu
NISER
Int. M.Sc.
LIFE11202313005

The Broken Window Fallacy

Students
Creative Writing



You've probably heard of the Broken Windows Fallacy. And if you haven't, lucky you—because today, I'm going to tell you a story. One from when I was a kid.

Near our society, we had a dusty little garage with a patch of open space beside it. It wasn't much, but to us, it was our cricket stadium. The garage had a glass door and two big glass windows, with "The Sodhi Garage" painted in red. That glass? It had a history. A painful one. For Sodhi uncle.

My friend Tappu always insisted on batting, mostly because it was *his* bat. Goli would bowl. Pinku and I would do the fielding. Standard setup. But every now and then, Tappu would swing big. And when he hit it just right, the ball would soar—and *crash!* Straight into one of those glass panes.

It happened so many times that it stopped being funny. Sodhi uncle would come storming out, yelling. We'd scatter like pigeons. Especially Tappu—he'd disappear before the glass even hit the ground.

Now here's where it gets interesting.

When Sodhi uncle went to complain, some of the uncles from the society would say, "It's fine, yaar. Abdul gets some work out of it." Abdul uncle was our neighbourhood repair guy. Fixing windows was his bread and butter. So, the logic went: broken window → Abdul gets ₹2,500



→ he spends that money → economy grows. In that version of events, Tappu wasn't a troublemaker—he was practically doing public service.

Sounds clever, right?

But here's what no one talked about.

Sodhi uncle had been saving for a new kurta. A proper one. He kept talking about wearing it to his nephew's wedding. But now, that ₹2,500 went into fixing glass instead of tailoring fabric. So instead of a window *and* a kurta, he just had... a window. Back to square one.

And here's the real kicker: while Abdul uncle made money, the tailor didn't. The wedding didn't get a freshly dressed Sodhi uncle. The kurta never existed. And nobody missed it—because nobody ever saw it.

That's what this whole thing is about: what's seen and what's not seen.

The broken glass is obvious. So is Abdul uncle fixing it. But the kurta? The missed business? The hidden cost? That part vanishes quietly.

Years later, here in college, I found out this idea actually has a name. The *Broken Window Fallacy*. A French economist named Bastiat wrote about it back in 1850—"*Ce qu'on voit et ce qu'on ne voit pas*" ("*That Which Is Seen, and That Which Is Not Seen*"). He used a story just like mine: a kid breaks a window, people say it's good for the economy, and he explains why that's wrong. He talks about how opportunity costs, as well as the law of unintended consequences, affect economic activity in ways that are unseen or ignored.

In essence, the Broken Window Fallacy is the mistaken belief that destruction stimulates economic activity when it actually causes a net loss by diverting resources from other potentially beneficial uses.

Turns out, me and Bastiat had something in common. We both knew a kid like Tappu.

Mr. Ashutosh Nayak

NISER

Int.-M.Sc.

PHYS11202113008



The Story of a Legend

A boy was born in a small village called **Shankara Ghatta** in the Shivamogga district of Karnataka. From early childhood, especially during classes 1 to 10, he was extremely shy. Many of his classmates ragged him, but despite these hardships, he continued his studies and tried to live a normal life. Through perseverance and determination, he passed his 10th standard with distinction.

After this success, he joined 10+2 in the science stream. This phase of life proved to be very difficult. He struggled with most subjects except Biology, in which he scored the highest marks. Because of poor performance in other subjects, he passed with a second class.

At this crucial stage, he made a wrong academic decision. Believing that PCM (Physics, Chemistry, Mathematics) had more value than biology-based courses, he joined **Sahyadri Science College, Shivamogga**. Although he could have chosen a biology-oriented undergraduate program, he opted for PCM. Unfortunately, he could not understand any of the three subjects and failed in every semester in all core subjects, except languages.

Gradually, and without realizing it, his psychological condition worsened. He began washing his hands repeatedly, speaking to himself, and walking unnecessarily long distances. His behaviour alarmed people around him. Neighbours, villagers, and even relatives started fearing him. When he visited his cousin's house, doors were suddenly closed. No one came forward to help him. Only his father, mother, and sister stood by him, silently enduring the pain of seeing his suffering.

He was not harmful to anyone, yet society treated him as if he were. Friends in college avoided him, teachers did not encourage him, and villagers showed no respect. Continuous academic failure and social rejection pushed him into severe stress, which further affected his behaviour. He often sat alone, spoke to himself, and withdrew from the world without understanding what was happening to him.

During this dark period, he found strength in his faith. He worshipped Lord Shiva with deep devotion. One day, by what he believes was the grace of Lord Shiva, he experienced a moment of self-realization—a turning point in his life. Sitting alone, he reflected deeply and asked himself what to do next, realizing that he had already lost three precious years.

He finally understood that his academic failures and behavioural changes were linked to an untreated psychological disorder. Instead of losing hope, he made a courageous decision: he wanted to contribute to the field of psychology so that others would not suffer as he had.

He enrolled in **B.Sc. Psychology** at **Kateel Ashok Pai Memorial College, Shivamogga**, with a combination of Economics, History, and Psychology. This time, he studied with interest and clarity. He later completed **M.Sc. Psychology** from the **University of Mysore**. His journey continued as he cleared the **UGC-NET in Psychology** and pursued a **Ph.D. in Psychiatry** at **NIMHANS, Bengaluru**.



After successfully completing his Ph.D., he joined NIMHANS as a **Scientist in the Department of Psychiatry**. Today, he leads several major research projects, has successfully completed many others, and has contributed significantly to the formulation of important mental health policies. He has published numerous research papers in national and international journals and continues to make lasting contributions to the field of mental health.

Recently, I had the opportunity to meet this remarkable person. He shared a powerful truth with me:

“When I was failing academically, no girl spoke to me, no teacher encouraged me, no relatives helped me, and no villagers respected me. But my God, Lord Shiva, loved me. The goodness that people see today was present even then—it was simply unseen.”

He believes that many students silently suffer due to psychological disorders and wrong academic choices. His goal is not money or recognition, but service to the mental health field. He firmly believes that every course has its own value, and true success depends on interest, understanding, and dedication—not on society’s perception of prestige.

This story teaches us that choosing a course without genuine interest can lead to failure, while passion and perseverance can transform even the darkest struggles into a legendary life journey.

This is a true story.

The identity has been withheld to protect privacy.

Mr. Arun V. R.

TMC, Mumbai

M.Sc. (Public Health & Epidemiology)

HLTH09202421002



The App That Couldn't be Downloaded

Today, technology moves faster than ever. There are apps for almost everything like work, focus, sleep, learning, faith, and even happiness. We count steps, track moods, and measure peace using numbers and charts. Still, many people feel something is missing.

One day, a strange new app appeared on a global app store.

There were no ads, no description, and no instructions.

It had only one name:

“Bhava”

Millions tried to download it.

But it never installed.

Instead, a simple message

appeared: *Close your eyes for*

thirty seconds.

At first, people hesitated. Then they agreed. Screens went dark. Scrolling stopped. For a brief moment, the world became quite like the silence felt during prayer or deep thought.

Then the app showed another message:

Remember one talent, passion, or prayer you practiced before life became so fast.

Some remembered music

Some remembered

drawing

Some remembered prayer (done quietly, without counting or sharing)

Others remembered silence (calm, slow, and peaceful) .

The final message appeared, gentle and clear:



This app works only in offline mode.

To continue, update the heart not the device.

Within a day, the app disappeared.
No one knew who created it. No record of it remained.

But something had changed.

People did not stop using technology. Instead, they used it with more care. They created with meaning, not pressure. Old talents slowly returned. Faith felt less like habit and more like connection.

The app **Bhava** was never installed on any phone.

Yet it stayed with people.

Because *bhava* means **devotion felt from within** the sincere feeling behind our actions.

It is present when work becomes an offering,
when talent becomes service,
and when the heart stays connected.

Technology helps us move
faster. Devotion gives direction
and meaning.

As Albert Einstein once said,

“Science without religion is lame; religion without science is blind.”

True progress begins when technology and devotion (*bhava*) walk together.

Author's Note

The story has been written as a gentle reminder that while technology can make our lives faster and easier, it cannot give our work and talents real meaning on its own. *Bhava*, the devotion and sincerity we bring to everything we do is what truly awakens creativity and purpose. If this story made you pause for even a moment, then it has done its job.

Mr. Sai Kiran Panda

BARC

Ph.D.

ENGG01202304025



अमर जवान - वीरांगना की कहानी

हैप्पी बर्थ डे टू यू, सब एकसाथ गा रहे थे।
आज "उसके" बेटे का, पहला जन्मदिन मना रहे थे।

हँसी के पीछे उसके, थी दर्दभरी किलकारी।
पर बच्चे की मुस्कान देखकर, चुप थी वो बेचारी।

बच्चे के दादा-दादी भी, आज महसूस कर रहे थे हारा।
लेकिन उनको ही तो बनना था, अब बहू का सहारा।

आशीर्वाद से भरकर झोली बच्चे की, सब मेहमान लौट गये।
जाते जाते "उसको" भी सबने, सांत्वनाभरे शब्द दिये।

अब वह अकेली वहाँ, सोये बच्चे को देख रही थी खड़ी।
पर पढ़कर "उन्होंने" दी हुई चिट्ठी, अब फूटफूटकर रो पड़ी।

आँखों के सामने आया उसके, एक साल पहले का दिन।
उसकी सारी खुशियाँ, आज ही ले गया था कोई छीन।

एक साल पहले की है बात, मुबारक हो!! हुआ है बेटा।
नन्ही जान हाथ में लेते हुए, आज उसको था आसमान छूता।

सबसे बधाइयाँ लेते हुए, वह बेचारी शरमाई।
तभी उनके खुशियों को, मानो किसी ने नजर लगाई।

आपके पति को रणांगण में, आज वीरमरण है आया।
सुनते हुए फोन पर यह बात, उसके आँखों पर अंधेरा छाया।

एक दीपक देकर आज, दूसरा दीप बुझ गया था।
सुनकर आक्रोश उसका, आसमान भी तब रो रहा था।

पर नवजात बेटे को हाथों में लेकर, मिली उसको नयी
उम्मीद।
भारत माँ का सपूत आज, माँ की गोद में सोया गहरी नींद।

सोचकर ऐसी बात अब, वह वीरांगना शांत हुई।
तिरंगे में लिपटे अपने पति को, दी आज उसने विदाई।

पर तभी उसके हाथों में, ऑफिसर ने एक लिफाफा
दिया।
सर ने आपको देने कहा था, उसने वीरांगना को बताया।

आज इस युद्ध में, माँ को बचाने जा रहा हूँ।
शायद वापस ना लौट पाऊँगा, इसलिए यह खत लिख
रहा हूँ।

मेरी प्यारी रानी, तुम एक जवान की पत्नी हो ना।
फिर तुम्हें शोभा नहीं देता, ऐसे फूटफूटकर रोना।

और हाँ! बेटा हो या हो बेटा, उनको अच्छे से संभालना।
माँ और पापा भी बनकर, ऊपर खुशियाँ ही बरसाना।

माँ बापूजी को भी मेरी कमी, कभीभी महसूस ना होने
देना।
तुम सिर्फ मेरी पत्नी नहीं, हो भारत की वीरांगना!!

लिपटकर वह चिट्ठी, उसने अपने आँसू पिये थे।
पर आज "उनकी" याद बनकर, वह लम्हें उसने फिर
जिये थे।

तभी उसके कानों में, "उनकी" आवाज गूँजने लगी।
उनकी आहट महसूस करके, वीरांगना फिर मुस्कराने
लगी।

कभी भी मरता नहीं जवान, रानी मेरी! मैं हूँ तुम्हारे पास।
भारत माँ की मिट्टी बनकर, जी रहा हूँ तुम्हारे साथ।

अमर होकर सारे हिंदुस्तानियों के दिलों में, आज भी
जिंदा है हर जवान।
वीरांगना - भारत की बेटियों, पूरे भारत का आपको
शतशः प्रणाम !!

डॉ. राजश्री कुळकर्णी
TMC, Mumbai
MD Anaesthesiology (JR2)

*Students*

POEMS

Beside You

You were the smile I never owned,
a love I felt yet never knew.
My heart remains where you left it—
timeless
in a world that moved on.
I wasn't supposed to love you,
but your eyes spoke languages
my soul already understood.
One look,
and every guard I built
forgot what it was meant to do.

You are close enough
for my eyes to behold,
yet forever beyond
the reach of my hands.
You stand beside me,
but fate denies us
the hope
of calling you mine.
You moved ahead,
while I remain beside you, learning
how to let you go.

*Mr. Eklavya Chauhan**NISER*

Int. M.Sc.

PHYS011202313019

Cracks and Crevices

What if you were sowed in the bleak?
Aren't there plants thriving out of cracks and crevices?
Do they really care what the wilderness looks like?
Haven't they showcased their blossoms gracefully
despite sprouting from a tiny cleft?
So, who stands in your way of springing from the groove?
Ain't it yourself who constricts the field of vision?
Why not get fascinated at the immensity of the sky and the sea?
Isn't life but a speck of dust amidst their vastness;
and our problems, even tinier!
No matter how much gloom your roots have been in throughout;
always there is, a chance to start growing an offshoot!
Aspire to stretch beyond the comfort zone with a perspective shift,
sure there are eternal bounties to the one that seeks serenity!

*Ms. Sathyavani S.**IGCAR*

Ph.D.

PHYS02202404017



Students

Poem

तुम कैसी हो

अगर तुम पूछे तो मैं बताऊं कि तुम कैसी हो
 सर्दी की सर्द सुबह में सुनहरी धूप जैसी हो
 हिमालय के शिखर पे बिछी कोई चादर सी हो
 या कश्मीर में बरस रही एक बदल सी हो
 कैसे में बयां करु कि तुम कैसी हो
 तुम बिल्कुल तुम जैसी हो

सुबह से रोजे में पड़े शख्स के लिए दस्तरखान हो तुम
 हर शाम जो पढ़ता हूं वो अजान हो तुम
 तुम्हीं मंदिर तुम्हीं मस्जिद तुम्हीं हो गिरजा मेरा
 मेरा मजहब मेरा दिन ओ ईमान हो तुम
 और क्या मैं बोलूं तुम कैसी हो
 तुम बिल्कुल तुम जैसी हो

ये दुनिया अगर बाग है तो तुम गुलेबाँ हो उसका
 ये मेरी जो दुनिया है तुम निगेहबान हो उसका
 और इन आंखों में देखो कि तुम क्या हो
 ख्वाबों में एक तस्वीर बनाई थी मैंने तुम आईना हो उसका
 इस शहर ए अजनबी में घर जैसी हो
 तुम बिल्कुल तुम जैसी हो

ये आंखें जो सितारों की किस्सा समेटे हैं
 ये बिंदी जो चांद का हिस्सा समेटे है
 ये होठ जो कोयलों के सुर सुनाती है
 ये झुमके जो रिमझिम के गीत गाती है
 ये पायल जिनमें सरगम है सुरों की
 पूछती हैं मुझसे की तुम कैसी हो
 और बस इतना ही कहता हूँ की
 कुछ अनकही कुछ अनसुनी लिखी मेरी डायरी जैसी हो
 तुम बिल्कुल मेरी शायरी जैसी हो।

सूरज साव

SINP

Ph.D.

PHYS05202504006



Students
Poem

आशा की किरण: Preventive Oncology का संदेश

TMC का दीप जले उजियारा,
कैंसर से लड़ने का सहारा।

रोकथाम की बातें सिखलाए,
जीवन में सेहत के रंग भराए।
तम्बाकू छोड़ो, स्वास्थ्य अपनाओ,
नयी उमंग से जीवन सजाओ।

स्क्रीनिंग, जांच, जागरूकता—
सबमें छुपा है जीवनता।
Oral, Breast, Cervical का संदेश,
जल्दी पहचान ही सबसे विशेष।

डर को पीछे छोड़ चलें,
आशा की किरणों को गले लगाएँ।
TMC का संकल्प यही बतलाए,
रोग से पहले ही हम बच पाएँ।

Preventive Oncology की ये पुकार,
हर दिल में भर दे नया संसार।

Mr. Vikram Kumar

TMC

M.Sc. (Patient Navigation)



Faculty
Painting

Dr. Babita Tiwari
Associate Professor
Physical Sciences
BARC

Alumni
Painting & Sketches



Hena Roy



Dr. Sanjoli Chugh



होमी भाभा राष्ट्रीय संस्थान – एक शोधार्थी की अनुभूति

Alumni
Poem

होमी भाभा राष्ट्रीय संस्थान से, जहाँ पूर्ण हुई मेरी शोध-यात्रा,
सन् 2014 में साकार हुआ स्वप्न— पीएच.डी. की वो साधना।

प्रयोगशालाओं में उपजे प्रश्न, तर्क की कसौटी पर परखे गए,
आँकड़ों ने जब सत्य कहा, तब शोध के अर्थ समझे गए।

गुरु डॉ. सभरवाल का मार्गदर्शन, अनुशासन, दृष्टि और विश्वास,
जिनके सान्निध्य में शोध बना, ज्ञान, मूल्य और आत्म-विकास।

डिग्री से बढ़कर मिला यहाँ, सोच की स्पष्टता, कर्म की धार है,
विज्ञान, राष्ट्र और समाज हेतु, समर्पण—यही HBNI का उपहार है।

आज मेरी पहचान की जो भी कड़ी है, उसकी नींव यहीं सुदृढ़ पड़ी है।
एक पूर्व छात्र, डॉ. गोयल के लिए, मेरा HBNI सदा मेरी प्रेरणा बनी है।

डॉ. एन.के. गोयल

Former Ph.D. Student

BARC

Alumni
Creative Writing

TATA Memorial Hospital Diaries

When people see a doctor, they see money, status, comfort. They don't see the story behind it. They don't see how much it costs to become this person. Being a doctor is a constant struggle, a constant sacrifice—putting our needs aside, putting our emotions aside. It is not occasional. It is everyday.

Yes, we pretend we don't care. Yes, we pretend we are not affected. But that is not true. We don't have a choice. We cannot cry in front of patients or their relatives. We have to be strong, even when we are breaking. We have to be brave for them. Sometimes that bravery is just silence.

I have become so used to misery in TMH that when I planned to attend a Brain Tumor Foundation event, I assumed it would make me even more miserable. But it didn't. It felt like coming back to school. Children were running around, chatting, drawing, making tattoos, eating. Laughing.

They say children are more resilient than adults. Maybe it's true. I could still see the residual signs of cancer on some of them, but there was also normalcy. I wanted to talk to each child and know their story, but they were busy enjoying themselves. I didn't want to disturb that joy by bringing back painful memories, so I stayed quiet.

Sometimes I wish humans had telepathy. That I could know what these children and parents were feeling without asking. I am a pessimistic person, and my mind always moves to the



future. Will they return to normal school? Will they be bullied? How much of the disease and treatment will follow them through life? Will they ever really have a happily ever after? I don't know.

Another day, after interacting with a foreign national patient and their relative for two days, I realised how difficult cancer becomes when treatment is far from home. Leaving behind family, food, language, culture, weather—everything familiar. Living like this is hard even for a healthy person; for someone very sick, it is exhausting.

And when money runs out, there is no immediate help. People assume that anyone who comes to another country for treatment must be very rich. That is often not true. Maybe they are just a middle-class family who used all their savings, borrowed from others, and came here with hope. Sometimes the struggle starts much before treatment begins.

OPDs can be painful in a different way. Sometimes the caregiver is an adolescent. So young, yet forced to be strong. Confused, hurt, but trying to understand. Taking life-and-death decisions for a parent. I saw a young girl with her father who had metastatic bladder cancer. Her eyes were teary, but she controlled herself. She kept asking questions, again and again, trying to grasp things beyond her age. I didn't know how to help her. I still don't.

One evening, while waiting for a bus to ACTREC, I watched people living along the roadside. This is a common sight around TMH. Patients with one or two caregivers. You can usually identify the patient—loss of hair, an IV line, resting their head in a caregiver's lap.

I don't know how they survive. Where they go to the toilet. Probably the hospital. Bathing must feel like a luxury. For food, there are long lines in front of vehicles run by social workers. They don't have a roof, or a bed, or even a pillow. Most nights are spent on the floor, sometimes on a piece of plastic.

Is it easy to take aggressive cancer treatment while struggling for basic necessities? Living far away from loved ones, holding on only to hope. Hope for survival.

TMH is the place where I feel I learn something new every day. Not just medicine. Life. Every corner teaches something. Every person teaches something.

On one side of the chair are people from different parts of the country—different backgrounds, different struggles—trying to become better doctors, better humans.

On the other side of the chair are patients and families who come with hope. Fighting for their loved ones. Fighting cancer. They teach humility, resilience, gratitude, courage, and the power of love.

These are things I see every day. These are things that stay with me. This is TMH.

Dr. Shabnam Bano

Former MD student

TMC



Alumni

Poem

When Courage Chose Humanity

Part I: Humanity- Ratan Tata

You can buy anything from
money they said
Ok, let's buy opportunities
(for common people) he said.

Instead of enjoying the perks
of generational wealth,
Let's enlighten mankind, he said.

Man of a vision, who worked
tirelessly for both humans
and animals,

Caring and loving purest
kind of a soul,

Let's mourn for this greatest
downfall (of our Nation).

Ms. Pooja Bamane

Former M.Sc. (Clinical Research)
student
TMC

Part II: Sacrifice- 26/11 Mumbai attacks

A salute to the heroes with a
common face.
A tribute to the ones who fought
against the unwanted guests.

A little emotional and
overwhelmed me standing near
this place,

Thinking about the sufferings,
Thinking about the time flying,
Thinking of the loss,
Thinking of the brave hearts.

No words are enough to describe
the pain and bravery of the heroes
who fought.

A word of silence to the pure souls
we've lost in the past.

A salute to this city who stood
strong and survived through thick
and thin.

A day to remember the darkest
memories of the people's
sufferings.

Alumni

Achievements

Scientific Achievement: Publication in PNAS

I am pleased to share a recent scientific milestone that builds upon my long-term research on protein quality control mechanisms relevant to Alzheimer's disease.

In **2023**, our initial work on this topic was published in *Biochimica et Biophysica Acta (BBA) – Gene Regulatory Mechanisms*. In that study, we reported early evidence that the Alzheimer's-associated ubiquitin variant **UBB⁺¹** is not only toxic when it accumulates inside cells but is also actively regulated by cellular stress pathways. This work raised important questions about how cells manage **UBB⁺¹** when classical degradation mechanisms are insufficient.

Motivated by these findings, we pursued a deeper mechanistic understanding of **UBB+1** handling during my postdoctoral research under the mentorship of **Prof. Michael Glickman**, Dean of the Faculty of Biology, at the **Technion – Israel Institute of Technology, Haifa, Israel**. This extended investigation culminated in our recent publication in the *Proceedings of*

the National Academy of Sciences (PNAS), titled “**Molecular mechanisms underlying p62-dependent secretion of the Alzheimer-associated ubiquitin variant UBB⁺¹.**”

In this study, we demonstrate that cells possess a previously underappreciated protective strategy to cope with UBB⁺¹ toxicity. Rather than relying solely on intracellular degradation, cells can actively **export UBB⁺¹ out of the cell** through a specialized form of autophagy. We identify the autophagy receptor **SQSTM1/p62** as a central regulator of this process, showing that it recognizes UBB⁺¹, organizes it into intracellular structures, and directs it toward secretion via autophagosome-like vesicles. We further uncover the involvement of a specific SNARE machinery that mediates this export, revealing a tightly regulated pathway that distinguishes between degradative and secretory autophagy.

Having completed my PhD training at **Homi Bhabha National Institute (HBNI)**, this progression from the 2023 BBA study to the 2025 PNAS publication represents a significant continuation of the scientific foundation I developed during my doctoral research. I am grateful to HBNI for the rigorous training and academic environment that shaped my research career, and I am honored to share this achievement with the HBNI alumni community.

Dr. Ajay Wagh

Former Ph.D. student

TMC

Alumni: Awards and Accolades

Dr. Deep Madkaiker (Former MD student at TMC) Assistant Professor, Department of Immunohematology & Blood Transfusion, Kasturba Medical College, MAHE, Manipal was conferred the Fellowship of the Royal College of Pathologists in Transfusion Science at the New Fellows ceremony held at the Royal College of Pathologists, 6 Alie Street, London, United Kingdom on September 10, 2025. This landmark milestone is the first for a Transfusion Medicine Specialist in India and he is also the first international candidate to be awarded the degree.





HBNI Ranked 7 in
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HBNI Ranked 20 in
Overall Category



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Homi Bhabha National Institute
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Bhabha Atomic Research Centre
(BARC)



Indira Gandhi Centre for Atomic
Research (IGCAR)



Raja Ramanna Centre for
Advanced Technology (RRCAT)



Variable Energy Cyclotron Centre
(VECC)



The Institute of Mathematical
Sciences (IMSc)



Saha Institute of Nuclear Physics
(SINP)



Harish-Chandra Research Institute
(HRI)

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Hospital (MPMMCC & HBCH)



National Institute of Science
Education and Research (NISER)



Homi Bhabha Cancer Hospital &
Research Centre, (HBCH & RC)

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अणुशक्तिनगर, मुंबई, (भारत) / Anushaktinagar, Mumbai (India)- 400094

www.hbni.ac.in / Phone No: 022-25597699, 022-25597625