



STUDENT INFORMATION BROCHURE



HOMI BHABHA NATIONAL INSTITUTE

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

2019

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



HRI, Allahabad



IPR, Gandhinagar



RRCAT, Indore



BARC, Mumbai



TMC, Mumbai



HBNI Central Office



VECC, Kolkata



SINP, Kolkata



IoP, Bhubaneswar



NISER Bhubaneswar



IMSc, Chennai



IGCAR, Kalpakkam

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INTRODUCTION

Welcome to the Homi Bhabha National Institute !

This brochure aims to provide an overview of the Institute, its programs and information in brief about various authorities, processes and guidelines. Detailed information about the institute is also available in the website <http://www.hbni.ac.in>. All students are encouraged to visit the web site frequently to know about updates on various programs and procedures.

About the Institute

The Homi Bhabha National Institute (HBNI) was established in 2005 under section 3 of the UGC Act. HBNI has the following Centres as its Constituent Institution (CI)/ Off Campus Centre (OCC):

- (a) Bhabha Atomic Research Centre (BARC), Mumbai
- (b) Indira Gandhi Centre for Atomic Research (IGCAR), Kalpakkam
- (c) Raja Ramanna Centre for Advanced Technology (RRCAT), Indore
- (d) Variable Energy Cyclotron Centre (VECC), Kolkata
- (e) Saha Institute of Nuclear Physics (SINP), Kolkata
- (f) Institute for Plasma Research (IPR), Gandhinagar
- (g) Institute of Physics (IoP), Bhubaneswar
- (h) Harish-Chandra Research Institute (HRI), Allahabad
- (I) Institute of Mathematical Sciences (IMSc), Chennai,
- (j) Tata Memorial Centre (TMC), Mumbai.
- (k) National Institute of Science Education and Research (NISER), Bhubaneswar (OCC)

VISION

The vision of HBNI is:

- To provide an academic framework for integrating basic research with technology development
- To encourage inter-disciplinary research
- To nurture an environment of attracting high quality manpower in sciences including engineering sciences to take up career in nuclear science and technology related areas

MISSION

To encourage pursuit of excellence in sciences (including Engineering Sciences) and Mathematics in a manner that has major significance for the progress of indigenous nuclear technological capability.

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Guided by the vision, mission and objectives, the value proposition of the Institute is to

- Always adhere to the highest ethical standards and put good of students first
- Value excellence in research and foster innovation and creativity
- Recognize importance of science for the development of the society

The role of HBNI is to nurture in-depth capabilities in nuclear science and engineering and to serve as a catalyst to accelerate the pace of basic research and facilitate its translation into technology development and applications through academic programs, viz., Master's and Ph.D. degrees in Engineering, Physical, Chemical, Mathematical, Life and Medical & Health Sciences while encouraging inter-disciplinary research. Additionally, academic programs in the domain of Applied Systems Analysis have also been identified to ensure availability of adequate qualified human resources to address issues pertaining to nuclear law, economics of nuclear power, nuclear security, nuclear proliferation, intellectual property rights etc.

HBNI has been accredited by NAAC with a score of 3.53, as a category "A" university. It should be noted that among 123 Deemed to be universities in the country, only 11 have been placed in "A" category. In 2018, HBNI was also included in the list of institutions to be given a higher degree of autonomy, by MHRD. In the MHRD's National Institutional Ranking Framework (NIRF) exercise for the academic year 2017-18, results of which were announced in April 2019, HBNI received 17th rank in University category among a total of 303 participants.

ACADEMIC PROGRAMMES

The HBNI offers a range of academic programs in chemical sciences, engineering sciences, medical & health sciences, life sciences, mathematical sciences and physical sciences. It also has a program in Applied Systems Analysis. All institutions, except NISER, conduct programs at post-graduate level. Various programs offered are the following.

Post Graduate & Research Courses (offered at CIs and OCC)

- Ph.D in varied disciplines such as Physical Sciences, Chemical Sciences, Mathematical sciences, Life Sciences, Medical & Health Sciences and Applied Systems Analysis etc. HRI and IMSc also offer an integrated Ph.D. program where students study for M.Sc. as well as Ph.D. NISER has proposed to start similar Ph.D. program.
- M.Tech in engineering sciences and M.Phil in physical sciences, chemical sciences, mathematical sciences and life sciences. These programs consist of one year of course work and one year of project work. The course work is offered at all campuses of BARC Training School and IPR Training School. Project work is offered at BARC, IGCAR, RRCAT, VECC, IPR and units of DAE. Those who are not able to pursue or are not interested in pursuing a project / research work have the option to get a post graduate diploma in lieu of M.Tech or M.Phil degree.
- M.Sc. (Engg) in which the emphasis is more on research content as compared to M.Tech program. The duration of the project work under this program is one and half year, while the duration of the course work is up to one year. This program is offered at BARC, IGCAR,

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VECC, RRCAT and IPR.

- Integrated M.Sc. of five-years duration offered at NISER
- M.Sc. of two-years duration offered at HRI

Super Specialty Courses in Medical & Health Sciences (offered at TMC)

- Doctor of Medicine (D.M.) in Medical Oncology, Pediatric Oncology, Gastroenterology, Critical Care, Oncopathology and Interventional Radiology
- Master of Chirurgiae (M.Ch.) in Surgical Oncology, Gynecological Oncology, Plastic Surgery & Reconstructive Surgery, Head & Neck Oncology

Two years Certified Fellowship Programme in Medical & Health Sciences (offered at TMC)

- Fellowship in Orthopedic Oncology, Breast Oncology, Thoracic Oncology, Uro Oncology, Interventional Oncology, Surgical Pathology, Haemato Pathology, Dental & Prosthetic Surgery, Preventive Oncology, Infectious Diseases & HIV Medicine, Gastrointestinal Oncology, Pulmonary Oncology, Molecular Haemato Oncology, Oral Oncology with Reconstructive Surgery

Post Graduate Courses in Medical & Health Sciences (offered at TMC & BARC-RMC*)

- MD (Pathology, Anesthesia, Radio-diagnosis, Radiation Oncology, Microbiology, Nuclear Medicine, Palliative Medicine, Immuno-Hematology & Transfusion Medicine)
- MD in Nuclear Medicine*
- M.Sc. (Nursing) and M.Sc. (Clinical research)
- M.Sc. (Nuclear Medicine and Molecular Imaging Technology)*
- M.Sc. (Hospital Radiopharmacy) offered at BARC-RMC
- M.Sc. (Public Health in Epidemiology)
- M.Sc. (Occupational Therapy in Oncology)

PG Diploma Course (offered at TMC)

- DFIT: Diploma in Fusion Imaging Technology

PG Diploma Courses (offered at BARC)

- Dip.R.P Diploma in Radiological Physics
- DMRIT Diploma in Medical Radio Isotope Techniques
- Dip.NSE Diploma in Nuclear Science and Engineering

The academic programs of HBNI are carried out strictly in accordance with its rules, which have been aligned with the UGC (Institutions Deemed to be Universities) Regulations 2016, and subsequent guidelines issued by UGC.

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HBNI aims to provide adequate flexibility to the student in the learning process by providing access to all the CIs/OCC with regard to use of their research facilities and academic guidance. Credits can be earned by students pursuing research based degrees, by attending courses at other CI/OCC subject to approval by Doctoral /Monitoring Committee. Research students can also have co-guides from other CIs/OCC to take advantage of the expertise and knowledge base available across the CIs/OCC.

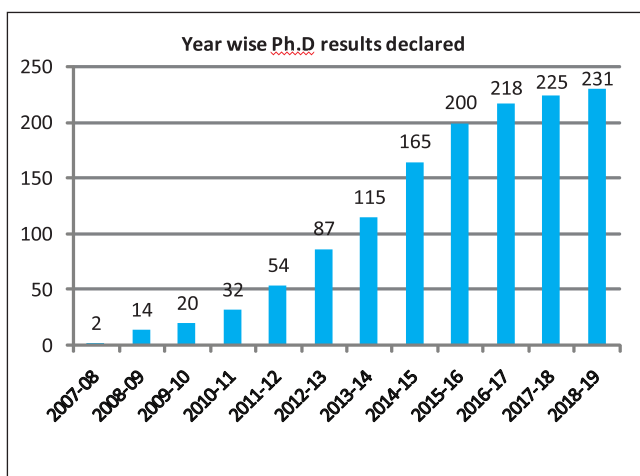
Towards providing the students' self-study materials that would augment or partly substitute the course work, a set of NPTEL lecture courses covering a large number of subjects in various disciplines has been obtained from NPTEL and hosted on the Anunet website of HBNI, the Pathshala. This website also hosts videos of colloquia and technical lectures organized by Central Office. The mission of Pathshala is to enhance the quality of education in the Homi Bhabha National Institute by providing free intranet courseware. The website can be accessed at <http://pathshala.anunet.in/>. On their part, CIs have also continued to create web based learning material. IMSc, for example, has been regularly providing video lectures on the youtube.

HBNI has signed MoUs with several reputed Universities/ Institutes at National and International levels for Academic collaborations. As a part of such MoUs, a doctoral student can carry out course work in another institute to meet credit requirements. There is also a provision to guide a PhD program jointly with partnering institutions.

All the Constituent Institutions and OCC have world class experimental facilities and it is indeed one of the objectives of HBNI to provide access to research scholars to make use of these national facilities for expanding their knowledge and working at the frontiers of contemporary research problems. The CIs and OCC also have excellent library facilities having a large collection of books and subscribe to a large number of research journals including e-journals. All journals at BARC, for example, are available to researchers on their desktops.

HBNI Last year (2018-19)

During the last academic year (2018-19), HBNI awarded 231 Ph.D degrees. The total number of Ph.Ds awarded by HBNI till 31st March 2019 stands at 1363. HBNI also awarded 176 M.Tech., 28 M.Sc. (Engg), 55 (Integrated) M.Sc., 110 post graduate medical degrees and 14 Diplomas in medical radioisotope technology (DMRIT) during this period. 908 students were admitted in different programs during 2018-19, out of which 385 students were for PhD program.



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Academic Process

HBNI is implementing the academic programs as per the prescribed Academic Calendar. Detailed information on the programs is available with the Deans - Academic at the CIs/OCC. The calendar, the ordinances and guidelines, provide all necessary information to the student as well as the faculty about the academic process and the timelines to be strictly adhered to. The student is advised to carefully study these documents and clarify any doubt with his guide or the Dean (Student Affairs) (DSA) in the respective CIs/OCC.

The details of the academic process for the HBNI academic programs are given in the ordinances of HBNI. Students should refer to the HBNI website for latest version of these ordinances, and also other guidelines that may be updated from time to time. The format /template for various types of forms are also available in the website, and students are advised to use the forms available in the web site and not any versions that may have undergone revision.

To ensure correctness in the data provided by student himself/herself and to speed up the process of enrolment, an online procedure of submitting the application has been introduced from the current academic year, for some of the programs. Student can apply for online enrolment at <http://onlinehbni.anunet.in>

Financial Aspects

Fellowship

The fellowships payable to research fellows as well as other amenities and entitlements are covered by DAE notification from time to time. The fees payable by students are notified by HBNI from time to time.

Contingency

The contingency Grant to be used for buying (i) books/journals (ii) stationery (iii) computer hardware and software, (iv) mailing expenses (v) travel, registration fee and other expenses connected with participation in seminars /conferences (vi) membership of professional bodies.

Other Benefits

Enrolment fee and thesis evaluation fee wherever applicable paid by the Ph.D. students shall not be part of contingency grant' The Constituent Institutions (CIs) /Off-Centre Campus (OCC) of HBNI can frame policies for reimbursement of such fees as considered appropriate by them. Work related travel by the Students will be reimbursed by the CIs./OCC.

The research fellows are eligible for house rent allowance if hostel accommodation is not available. They are eligible for medical allowances as per the rules of the institution in which they are working.

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Financial Assistance for participation in International conference abroad

The PhD students are encouraged to participate in a good quality international conference /symposium on a relevant topic, for presenting their research work. Limited travel assistance is provided by HBNI for this purpose, once during the tenure of Ph.D. To qualify for the travel assistance, the student should have passed the OGCE and also made significant progress in the research work. The students are required to follow Government orders and regulations regarding travel. Details of the scheme are available with DSA.

Fee Payment

HBNI does not charge any tuition fee for the PhD programs. The fee structure for other programs is detailed in the brochure issued by the CI/OCC. The research student is liable to pay fees for various processes such as enrolment, thesis evaluation and academic extension (the first extension does not need any fee payment). The fee payment can be made on-line. The fee structure as well as procedure for on-line payment are available in the HBNI web site.

Guidelines for Publications

We are very keen that the publications of HBNI students as well as faculty are not only of high standards, but also conform to the best ethical practices. Guidelines for publications have been framed by HBNI and all Deans(Academic) have been sensitized about implementing the guidelines. In addition, the CIs / OCC may have additional guidelines for publications which also should be met by the students and faculty. Students are advised to discuss with their guide or Dean (Academic) or Dean(Student Affairs) about the guidelines and ensure that they are followed.

Students in particular, should ensure that their affiliation to HBNI is reflected in the publications. Where a thesis is submitted to HBNI for award of a degree, it is only appropriate that the publications appearing in the thesis reflect the affiliation. Boards of Studies have been advised that the publications of students that do not reflect HBNI affiliation need not be considered for award of the degree.

Completion of program / discontinuation

On completion of the academic program, or in case the student has to discontinue the program for any valid reasons, the student should intimate the same to the Guide and to the DSA. The student should also meet all administrative requirements of the CI / OCC , such as handing over of documents, materials, apparatus, books drawn from library, accommodation, identity card, etc.

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Other Guidelines

Discipline

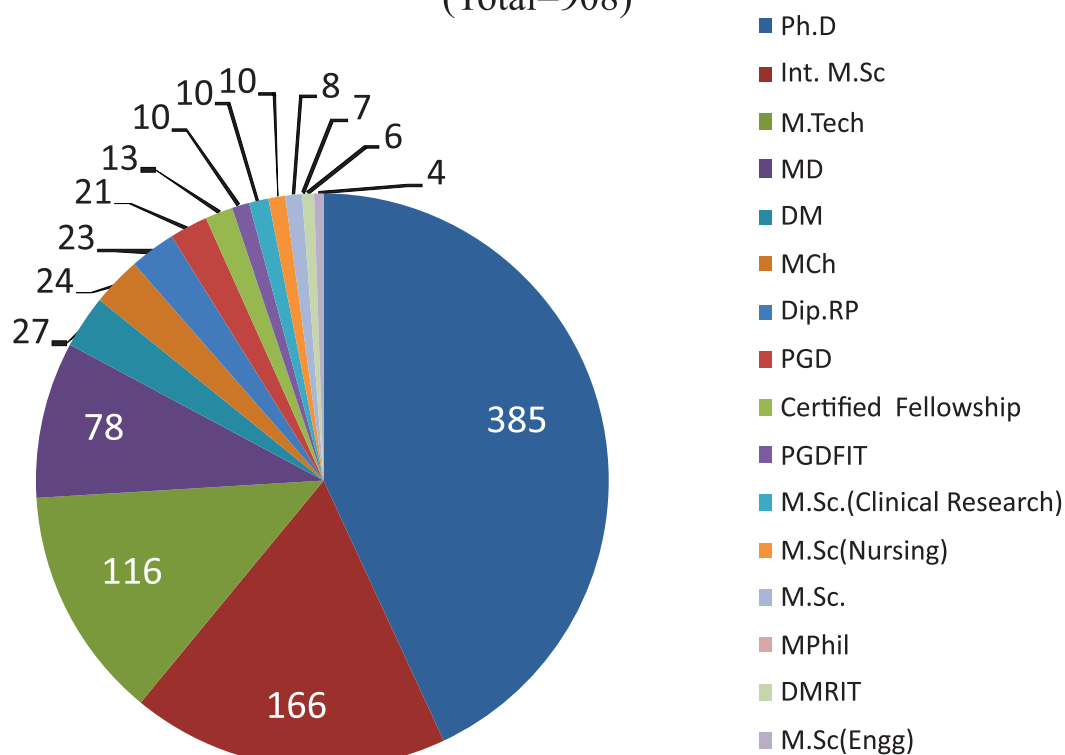
1. The students are expected to dress and to conduct themselves in a proper manner.
2. HBNI has zero tolerance policy for ragging. If a student is found guilty of ragging, his / her enrolment could be cancelled, besides initiation of other actions as prescribed in Government rules. Students are also strictly warned not to indulge in any form of sexual harassment, which may attract disciplinary action.
3. In all academic matters, the student is expected to adhere to the guidelines/instructions provided by the Guide and the Doctoral Committee. In administrative matters, he will be governed by the rules and procedures of the CI/OCC. The student is expected to strictly follow the code of conduct prescribed by the Institute and the CI / OCC. If a student commits a breach of the code of conduct, his / her enrolment could be cancelled, and he/she would also attract administrative actions as per the rules of the CI.
4. A grievance cell is functional at each CI/OCC, which the student is welcome to approach in case he has any kind of grievance. However, it is expected that before the matter is taken up with grievance cell, the student has exhausted all other options including discussion with DSA.
5. In case a student is not satisfied with the redressal mechanism in the CIs/ OCC, he / she may seek support from the Central Office of HBNI by forwarding a representation to the Convener, HBNI Grievance Redressal Committee or e-mail to sghbni@hbni.ac.in, through proper channel.
6. Sexual harassment includes unwelcome sexually determined behaviour (whether directly or by implication). A Sexual Harassment Complaint Committee (SHCC) is functional in all the CIs/OCC, and Women's Cell at HBNI Central Office. Any aggrieved female student, regardless of the age, can lodge a complaint of sexual harassment in the work place with SHCC/Women's Cell at HBNI Central Office
7. Students and faculty members are expected to function with highest level of academic integrity. In their academic behavior, there should be open adoption of ethical practices. The term "ethical practice" will include avoiding / reporting / discouraging plagiarism, giving due credits to co-workers and not indulging in any kind of cheating including fudging of experimental data. Ethical practices with regard to publications are discussed in the guidelines that have been issued in this regard.
8. Students are required to attend lectures and other academic activities and meet the requirement of the minimum residence time prescribed for the program. Applications for leave of absence have to be made to the Research Supervisor in advance and approval for

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leave should be obtained before proceeding on leave. The eligibility with regard to various kinds of leave is notified by the authority paying the fellowship / stipend. Participation in any scientific event in India or abroad will be treated as on duty. Unauthorised absence for long periods of time may result in termination of enrolment.

Programme wise admission details during 2018

(Total=908)



Contact details

CHANCELLOR

Prof. S. Banerjee sbanerjee@barc.gov.in 022-25505333

VICE CHANCELLOR

Prof. P.R.Vasudeva Rao vasudeva@hbni.ac.in 022-25503385
Mr. David, VC Office vcoff@hbni.ac.in 022-25597621

DEAN

Prof. P.D.Naik deanhbni@hbni.ac.in 022-25595398

REGISTRAR

Dr. B. Chandrasekhar bchandrasekar@hbni.ac.in 022-25597627

ASSOCIATE DEAN(S)

Prof. D.K. Maity asso_dean@hbni.ac.in 022-25597623
Prof. A.K. Dureja dureja@hbni.ac.in 022-25597629
Prof. Saibal Basu sbasuhbni@hbni.ac.in 022-25597624

INSTITUTE CHAIR PROFESSORS

Prof. B.K.Dutta bk Dutta@barc.gov.in 022-25597640
Prof. B.S.Tomar tomarbs@hbni.ac.in 022-25597628

DEPUTY REGISTRAR

Mr. N. Venkateswarlu nvenkat@hbni.ac.in 022-25597637



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A Deemed to be University (u/s 3 of UGC Act) and
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2nd Floor, Training School Complex,
Anushaktinagar, Mumbai 400 094
Ph: 022 25597554, 022 25597626
www.hbni.ac.in