



SATYENDRA NATH BOSE NATIONAL CENTRE FOR BASIC SCIENCES

Block – JD, Sector – III, Salt Lake, Kolkata – 700106

No. SNB/AP-5-517/A- 175

Date: 10/11/2022

Detailed Advertisement for Mid- Term Admission into the Ph.D. Programmes in Physical, Chemical & Biological Sciences Academic Year: 2022-2023

The S. N. Bose National Centre for Basic Sciences (SNBNCBS) invites applications with consistently good academic record (First Division/Class) to apply for the Mid-Term Admission into the Ph.D. Programme in Physical, Chemical & Biological Sciences for the academic year 2022-2023.

- ✓ The applicants are expected to be motivated to make a career in Research.
- ✓ The programme is **fully residential** and the students are offered on-campus accommodations and boarding facilities.
- ✓ The students, after registering with a Research Supervisor, have to undertake a prescribed Course Work Programme.

The details of the Admission Programme are furnished below:

[A] Department-wise Admission Criteria

<p>Department of Astrophysics & High Energy Physics (AHEP)</p>	<p>Focused Research Areas for Admission:</p> <ul style="list-style-type: none">➤ Star formation and Pre-main Sequence stars➤ Spectroscopic studies of Novae, Wolf-Rayet, and Planetary Nebulae➤ Low-mass stars, Brown dwarfs, and Exoplanets➤ Cosmology - Investigation of Black holes, dark matter, and dark energy➤ Quantum Information Theory
<p>Basic qualification:</p> <p>Masters in Science / Technology in the subjects Physics and Applied Mathematics with First Class / Division i.e., <u>minimum 60%</u></p> <p>(55% for SC / ST / OBC (non-creamy layer) / EWS / Differently-abled candidates).</p>	<p>Further Qualifications:</p> <p>NET - CSIR-NET-JRF */ UGC-NET-JRF* with an offer of Valid Junior Research Fellowship Award Certificate having validity at least upto 31/1/2023 .</p> <p>OR</p> <p>INSPIRE** - PROVISIONALLY SELECTED and Award Letter to be valid up to 31.01.2023.</p> <p>OR</p> <p>UGC-MANF * / UGC-NFSC * / UGC-NFOBC*</p> <p>along with a valid award letter having validity at least upto 31/1/2023</p>

(* Should have validity of the Score/ Award letter at the time of admission.)

(** INSPIRE applicants must have JEST rank - Upto AIR 150 in JEST-2022)

<p>Department of Chemical & Biological Sciences (CBS)</p>	<p>Focused Research Areas for Admission:</p> <ul style="list-style-type: none">➤ Experimental Biophysical Chemistry➤ Laser Spectroscopy➤ Biomedical Optics➤ Physical Chemistry, chemical and soft matter physics➤ Theoretical & Computational Chemistry➤ Nano –Bio Photonics and optical Physics➤ Porous Materials(Organic & Hybrid)
<p>Basic qualification:</p> <p>Masters in Science / Technology in the subjects Chemistry, Physics ,Biophysics, Biochemistry, Bioinformatics, Biotechnology, Applied Optics and/or Photonics, Applied Physics, Electronics with First Class / Division i.e., <u>minimum 60%</u></p> <p>(55% for SC / ST / OBC (non-creamy layer) / EWS / Differently-abled candidates).</p>	<p>Further Qualifications:</p> <p>NET - CSIR-NET-JRF */ UGC-NET-JRF* with an offer of Valid Junior Research Fellowship Award Certificate having validity at least upto 31/1/2023 .</p> <p style="text-align: center;">OR</p> <p>INSPIRE** - PROVISIONALLY SELECTED and Award Letter to be valid up to 31.01.2023.</p> <p style="text-align: center;">OR</p> <p style="text-align: center;">UGC-MANF* / UGC-NFSC* / UGC-NFOBC *</p> <p>along with a valid award letter having validity at least upto 31/1/2023</p>

(* Should have validity of the Score/ Award letter at the time of admission.)

(* * INSPIRE applicants must have JEST or GATE qualification [JEST - Upto AIR 348 in JEST-2022 / GATE* - Upto AIR 1000 (2021, 2022)].

<p>Department of Condensed Matter and Materials Physics (CMMP)</p>	<p>Focused Research Areas for Admission:</p> <ul style="list-style-type: none">➤ Physics of Materials➤ Theoretical and Computational Condensed Matter Physics➤ Electronic Structure➤ Ultrafast spin Dynamics and spintronics➤ Electron transport in nanoscale devices➤ Electronic and magnetic properties of topological materials➤ Materials and devices for quantum technology➤ Resistive memory devices for neuromorphic applications
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<p>Basic qualification:</p> <p>Masters in Science / Technology in the subjects Physics, Chemistry, Applied Mathematics, Engineering Physics, Electronics, Nanotechnology, Material Sciences with First Class / Division i.e., <u>minimum 60%</u></p> <p>(55% for SC / ST / OBC (non-creamy layer) / EWS / Differently-abled candidates).</p>	<p>Further Qualifications:</p> <p>NET - CSIR-NET-JRF */ UGC-NET-JRF* with an offer of Valid Junior Research Fellowship Award Certificate having validity at least upto 31/1/2023 .</p> <p style="text-align: center;">OR</p> <p>INSPIRE** - PROVISIONALLY SELECTED and Award Letter to be valid up to 31.01.2023.</p> <p style="text-align: center;">OR</p> <p style="text-align: center;">UGC-MANF* / UGC-NFSC* / UGC-NFOBC *</p> <p>along with a valid award letter having validity at least upto 31/1/2023</p>
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(* Should have validity of the Score/ Award letter at the time of admission.)

(** *INSPIRE* applicants must have *JEST* or *GATE* qualification [(*JEST* - Upto AIR 348 in *JEST*-2022 / *GATE* *- Upto AIR 400 (2020, 2021, 2022)].

<p><i>Department of</i> Physics Of Complex System (PCS)</p>	<p>Focused Research Areas for Admission:</p> <ul style="list-style-type: none"> ➤ Statistical Physics ➤ Biological Physics ➤ Quantum Many –Body Physics and Exotic Phases of Matter
<p>Basic qualification:</p> <p>Masters in Science / Technology in the subjects Physics and Applied Mathematics with First Class / Division i.e., <u>minimum 60%</u></p> <p>(55% for SC / ST / OBC (non-creamy layer) / EWS / Differently-abled candidates).</p>	<p>Further Qualifications:</p> <p>NET - CSIR-NET-JRF */ UGC-NET-JRF* with an offer of Valid Junior Research Fellowship Award Certificate having validity at least upto 31/1/2023 .</p> <p style="text-align: center;">OR</p> <p>INSPIRE** - PROVISIONALLY SELECTED and Award Letter to be valid up to 31.01.2023.</p> <p style="text-align: center;">OR</p> <p style="text-align: center;">UGC-MANF* / UGC-NFSC* / UGC-NFOBC*</p> <p>along with a valid award letter having validity at least upto 31/1/2023</p>

(* Should have validity of the Score/ Award letter at the time of admission.)

(* *INSPIRE* applicants must have *JEST* (rank - Upto AIR 150 in *JEST*-2022)

[B] Date of Interview: 5th - 6th December 2022

[C] Age Limit: None. However, the last qualifying University examination (Masters in Science/Technology) should have been **taken not earlier than 2020**.

[D] Fellowship: As per GOI rule.

[E] Tuition Fee: Rs 12,000/- each year is payable in two equal instalments at the beginning of the Autumn and Spring Semester.

[F] Application Fee:

There is a non refundable application fee of Rs. 500/- for General category candidates & Rs. 250/- for reserved categories (including Women).The fee to be paid through NEFT / RTGS / UPI Mode only.

The account details are as follows:

Name of Account Holder	: S. N. Bose National Centre for Basic Sciences
Account Number	: 089302000000220
Bank Name and Branch	: Indian Overseas Bank, Salt Lake City Branch
Account Type	: Current Account
IFSC Code	: IOBA0000893

[G] Application Portal:

- Online Application Portal Starts on : 11/11/2022
- Online Application Portal Closes on : 28/11/2022

[H] General Information:

- Only online applications will be accepted. Please log on to <http://www.bose.res.in> or <http://newweb.bose.res.in/AcademicProgrammes/Admission.jsp> for further details.
- For any issue or technical query related to online application portal, please write to: admission-help@bose.res.in
- For any academic/official query, please write to: admission@bose.res.in .
- In matters of admission the decision of the Director of the Centre is final and binding

Sd/-
DEAN (ACADEMIC PROGRAMME)

About The Centre:

The Centre is a premier autonomous research institute under the Department of Science and Technology, Government of India. In addition, the Centre receives extramural funding from various funding agencies of India and abroad for its different research programmes. The Centre has extensive collaborative programmes with other premier institutions in India and abroad through bi-lateral exchanges in which the PhD research scholars take active part. The Centre is fully equipped with the state-of-the art infrastructure (experimental and computational) including a digital library for advanced research in chosen areas of Physical, Chemical, Biological and Mathematical Sciences. The research programme in biological sciences focuses on the areas of overlap with chemical and biophysical problems. Students joining the centre get contingency grants to meet research contingency expenses that include expenses for attending conferences and training programmes in India. The students also get generous support to attend International Conferences outside India. The Alumni of the Centre have gone on to work in academic and research sectors in India and abroad. The Centre offers an excellent atmosphere for academic development of students.

For research profiles of the members of the Faculty and for the facilities available, for more details please visit <http://www.bose.res.in>