



# SATYENDRA NATH BOSE NATIONAL CENTRE FOR BASIC SCIENCES

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

No. SNB/AP-5-514/A-64

Date: 11<sup>th</sup> August, 2021

## Detailed Advertisement for Admission into the Ph.D. Programmes in Physical, Chemical & Biological Sciences Academic Year: 2021-2022

The **S. N. Bose National Centre for Basic Sciences (SNBNCBS)** invites applications with consistently good academic record (First Division/Class) to apply for Admission into the Ph.D. Programme in Physical, Chemical & Biological Sciences for the academic year 2021-2022.

- ✓ 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><i>Department of</i> <b>Astrophysics &amp; Cosmology (A&amp;C)</b></p>	<p><b>Focused Research Areas for Admission:</b></p> <ul style="list-style-type: none"><li>➤ Star formation and Pre-main Sequence stars</li><li>➤ Spectroscopic studies of Novae, Wolf-Rayet, and Planetary Nebulae</li><li>➤ Low-mass stars, Brown dwarfs, and Exoplanets</li><li>➤ Cosmology - Investigation of Black holes, dark matter, and dark energy</li><li>➤ Quantum Information Theory</li></ul>
<p><b>Basic qualification:</b></p> <p>Masters in Science / Technology in the subjects <b>Physics</b> and <b>Applied Mathematics</b> 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><b>Further Qualifications:</b></p> <p>JEST - Upto AIR 348 in JEST-2021 <b>OR</b> NET - CSIR-NET-JRF / UGC-NET-JRF (Dec 2017, Jun 2018, Dec 2018, Jun 2019, Dec 2019, Jun 2020) with a valid award letter having validity at least till September 2021 <b>OR</b> GATE - Upto AIR 400 (2019, 2020, 2021) <b>OR</b> INSPIRE* - PROVISIONALLY SELECTED and Award Letter to be valid up to February 2022.</p>

(\* INSPIRE applicants must have National Level Test (NLT) like JEST or GATE qualification (at par with the departmental Admission 2021 criterion) which may prevent them from cancellation of their admission at the event of rejection of final offer by INSPIRE, if any, after their joining the Centre).

<p>Department of <b>Chemical, Biological and Macro Molecular Sciences (CBMS)</b></p>	<p><b>Focused Research Areas for Admission:</b></p> <ul style="list-style-type: none"> <li>➤ Experimental Biophysical Chemistry</li> <li>➤ Laser Spectroscopy</li> <li>➤ Biomedical Optics</li> <li>➤ Physical Chemistry, chemical and soft matter physics</li> <li>➤ Theoretical &amp; Computational Chemistry</li> </ul>
<p><b>Basic qualification:</b></p> <p>Masters in Science / Technology in the subjects <b>Physics, Chemistry, Applied Mathematics, Biophysics, Biochemistry, Nanotechnology, Biotechnology, Engineering Physics, Bioinformatics, Chemical Engineering, Electronics, Applied Optics &amp; Photonics, Applied Physics, Radio Physics &amp; Electronics, Polymer Science &amp; Technology</b> 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><b>Further Qualifications:</b></p> <p>JEST - Upto AIR 450 in JEST-2021 <b>OR</b> NET - CSIR-NET-JRF / UGC-NET-JRF (Dec 2017, Jun 2018, Dec 2018, Jun 2019, Dec 2019, Jun 2020) with a valid award letter having validity at least till September 2021 <b>OR</b> GATE - Upto AIR 750 (2019, 2020, 2021) <b>OR</b> INSPIRE* - PROVISIONALLY SELECTED and Award Letter to be valid up to February 2022.</p>

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<p>Department of <b>Condensed Matter Physics and Material Sciences (CMP&amp;MS)</b></p>	<p><b>Focused Research Areas for Admission:</b></p> <ul style="list-style-type: none"> <li>➤ Physics of Materials</li> <li>➤ Theoretical and Computational Condensed Matter Physics</li> <li>➤ Electronic Structure</li> <li>➤ Ultrafast spin Dynamics and spintronics</li> </ul>
<p><b>Basic qualification:</b></p> <p>Masters in Science / Technology in the subjects <b>Physics, Chemistry, Applied Mathematics, Engineering Physics, Electronics, Nanotechnology, Material Sciences</b> with First Class / Division i.e., <u>minimum 60%</u></p> <p>(55% for SC / ST / OBC (non-creamy layer) /</p>	<p><b>Further Qualifications:</b></p> <p>JEST - Upto AIR 348 in JEST-2021 <b>OR</b> NET - CSIR-NET-JRF / UGC-NET-JRF (Dec 2017, Jun 2018, Dec 2018, Jun 2019, Dec 2019, Jun 2020) with a valid award letter having validity at least till September 2021 <b>OR</b></p>

EWS / Differently-abled candidates).	GATE - Upto AIR 400 (2019, 2020, 2021) <b>OR</b> INSPIRE* - PROVISIONALLY SELECTED and Award Letter to be valid up to February 2022.
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<i>Department of</i> <b>Theoretical Sciences (TS)</b>	<b>Focused Research Areas for Admission:</b>  ➤ Statistical Physics ➤ Biological Physics
<b>Basic qualification:</b>  Masters in Science / Technology in the subjects <b>Physics</b> and <b>Applied Mathematics</b> with First Class / Division i.e., <u>minimum 60%</u>  (55% for SC / ST / OBC (non-creamy layer) / EWS / Differently-abled candidates).	<b>Further Qualifications:</b>  JEST - Upto AIR 348 in JEST-2021 <b>OR</b> NET - CSIR-NET-JRF / UGC-NET-JRF (Dec 2017, Jun 2018, Dec 2018, Jun 2019, Dec 2019, Jun 2020) with a valid award letter having validity at least till September 2021 <b>OR</b> GATE - Upto AIR 400 (2019, 2020, 2021) <b>OR</b> INSPIRE* - PROVISIONALLY SELECTED and Award Letter to be valid up to February 2022.

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**[B] Date of Interview for A&C, TS, CMP&MS, CBMS Dept.:**

25<sup>th</sup> to 27<sup>th</sup> August, 2021 (Through Online Video Conference)

**[C] Age Limit:**

None. However, the last qualifying University examination (Masters in Science /Technology) should have been taken not earlier than 2019.

**[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	: 08930200000220
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<sup>th</sup> August, 2021**
- Online Application Portal Closes on : **22<sup>nd</sup> August, 2021**

## [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.
- In matters of admission, the decision of the Director of the Centre is final and binding
- For any issue or technical query related to online application portal, please write to: [admission-help@bose.res.in](mailto:admission-help@bose.res.in)
- For any academic/official query, please write to: [admission@bose.res.in](mailto:admission@bose.res.in).

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>