



Bose Institute

(An autonomous research institute of Dept. of Science & Technology, Govt. of India)

Advt. No.: BI/NET-JRF/06/2020-21

Admission for PhD Programme Spring 2021

<http://www.icbose.ac.in/admissions>

Acharya J.C. Bose, the founder of modern science in the Indian subcontinent, established Bose Institute in 1917. The Institute was set up as Asia's first interdisciplinary research centre and bears a century old tradition of excellence in research.

The Institute desires to admit students for its Ph.D. programme twice a year, for sessions beginning tentatively in January and July. Online interviews for this session will be held tentatively during 1st week of April, 2021.

Broad areas of research: Atmospheric Sciences, Chemical Sciences, Life Sciences, Physical Sciences and Interdisciplinary Sciences.

- Candidates can apply simultaneously to maximum of two positions as mentioned in **Annexure - I**.
- Candidates are required to provide a **Statement of Purpose** (SOP), in prescribed format, for **each of the positions** she/he applies for.

Fellowship: Admissible as per Govt. of India rules.

Reservation : Reservation quota will be adhered to the standard GoI rules.

Eligibility for PhD Interview:

(1) Candidates should have an award of JRF (CSIR-UGC JRF/ DBT-JRF/ ICMR-JRF/ DST-INSPIRE/ DBT-BINC or equivalent), whose last date of validity should not be earlier than 1st July 2021. Candidates, who are in the final year of their Master's degree and are in possession of an award of a JRF, if selected, will have to submit their final degree certificate at the time of joining.

(2) Master's degree or equivalent in any of the following fields: Engineering/ Science/ Technology with at least 55 %of marks for general, while for SC/ST/OBC(non-creamy layer) / Differently abled and other categories 50% marks is necessary

(3) Age limit: 28 years as on the day of application and relaxation of age is applicable as per Government of India rule.

(4) DST-INSPIRE candidates can only be admitted provisionally. Confirmation of their admission to the PhD programme of Bose Institute is subject to the final award of INSPIRE fellowship by DST. Subsequently, in case, the candidate is not finally awarded the INSPIRE fellowship by DST, his/her provisional admission is liable to be cancelled by the Institute.

(6) Candidates who have qualified in GATE/ JEST/ JGEEBILS/ NET (LS) etc. but who do not have a valid award of JRF mentioned in (1) above or equivalent are ineligible to apply.

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Registration for PhD Interview:

- Interested candidates fulfilling required eligibility should register online at the URL – <http://www.jcbose.ac.in/applications/PHD-ADMISSION2021/>
Deadline for online Registration: 6 PM of February 28, 2021
- An online acknowledgement receipt will be generated on successful registration. Candidates should retain this receipt for future reference. Candidates must produce this acknowledgement receipt for the interview. No candidates will be entertained for interview without this receipt.
- In case of any difficulty during online registration, please send email to phdadmission@jcbose.ac.in and dean_office@jcbose.ac.in.

Shortlisting for Interview:

- A shortlisting will be done based on 50% weightage on past academic records and 50% weightage on SOP.
- List of shortlisted candidates, along with the date and time of interview will be displayed at the Institute website
Note: Candidates applying for more than one discipline may be called for separate interviews.

PhD interview:

- The interview will be conducted online. Specific instructions for the interview will be communicated to the candidates at a later date.
- The medium of the interviews is English.

Shortlist and selection:

- The shortlist of candidates selected for the interviews, will be posted on the Institute website.
- It should be noted that mere appearance on the shortlist does not imply admission.
- Once the shortlist of candidates is posted on the Institute website, information on the future course of action and the timelines thereof, will be mentioned on the Institute website or will be communicated to the candidates.
- The Institute Authority reserves the right to reject any or all applications without assigning any reason thereof.

Important Dates:

- Last Date for online Registration: 18:00 hrs. February 28, 2021
 - Date of display of short-listed candidates and instructions on the Institute website:
March 20, 2021
 - Tentative date of interview: 1st week of April, 2021. The final dates of interview will be confirmed when the list of short-listed candidates is displayed on the BI website.
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Annexure – I

Research opportunities in Specific Scientific Areas

The following table provides names of the faculty members and the specific scientific areas where they wish to admit Ph.D. fellows via the common admission to PhD program at Bose Institute. **The applicants are strongly encouraged to visit the Institute webpage for detailed information regarding the research activities of the respective faculty members.**

Broad Area of Research: Atmospheric Sciences

Position Code	Name of Faculty	Research Area
AS01	Abhijit Chatterjee	Chemical and physical properties of atmospheric aerosols over different atmospheric environments in India
AS02	Sanat Kumar Das	Study on Radiative Effects of Black Carbon over the Himalayas

Broad Area of Research: Chemical Sciences

Position Code	Name of Faculty	Research Area
CS01	Anup Kumar Misra	Development of synthetic methodology and synthesis of bioactive oligosaccharides related to bacterial cell wall polysaccharides
CS02	Suman Kumar Banik	Study of information processing in biochemical networks

Broad Area of Research: Interdisciplinary Sciences

Position Code	Name of Faculty	Research Area
IS01	Kaushik Biswas	Identifying the Role of micro RNAs in the regulation of Ganglioside GM2-mediated tumor growth, progression and metastasis
IS02	Sanat Kumar Das	Investigations on Microbial Aerosols
IS03	Suman Kumar Banik	Study of information processing in biochemical networks
IS04	Shubho Chaudhuri	Chromatin remodeling during Plant development. Epigenetic regulation during plant stress response
IS05	Zhumur Ghosh	Understanding the role of noncoding RNAs in axonal degeneration caused due to traumatic brain injury and in other

		neurodegenerative diseases like Alzheimer and Parkinson
IS06	Soumen Roy	Networks, Complex systems, Information theory, Game theory, Biophysics and Systems biology
IS07	Ajit Bikram Datta	Deciphering the underlying molecular details that regulate ubiquitination of substrate proteins in eukaryotes using biophysical and structural tools
IS08	Sudipto Saha	Modeling chromatin spatial reorganization of the genome in T and B cells, which are important players of adaptive immunity
IS09	Anirban Bhunia	Liquid-liquid phase separation in Neurodegenerative diseases like Alzheimer and Parkinson

Broad Area of Research: Life Sciences

Position Code	Name of Faculty	Research Area
LS01	Abhrajyoti Ghosh	Environmental Microbiology
LS02	Ajit Bikram Datta	Deciphering the underlying molecular details that regulate ubiquitination of substrate proteins in eukaryotes
LS03	Anirban Bhunia	Structural characterisation and design of super antibiotics
LS03	Anupama Ghosh	Heat shock proteins, Programmed cell death, Yeast genetics
LS04	Atin Kumar Mandal	Ubiquitin ligases in clearance of polyQ proteins, Atxn3/Huntingtin responsible for SCA3 and Huntington's diseases
LS05	Gaurab Gangopadhyay	Validation of transcriptomics data set of indica rice concerning salt stress
LS06	Kaushik Biswas	Identifying the Upstream Components/Receptors involved in Ganglioside GM2-mediated Regulation of the Hippo-YAP/TAZ axis in EMT and Metastasis
LS07	Shubho Chaudhuri	Chromatin remodeling during Plant development. Epigenetic regulation during plant stress response
LS08	Sudipto Saha	Study the interaction between lung microbiome and host immune cells like T cells and alveolar macrophages in asthma mice model
LS09	Soumen Roy	Biophysics, Computational and Systems biology, Phage-bacteria interaction and dynamics, Structure, function and dynamics of biological macromolecules

LS10	Suman Kumar Banik	Study of information processing in biochemical networks
LS11	Wriddhiman Ghosh	Microbial life processes in the physicochemical extremes
LS12	Zhumur Ghosh	Understanding the role of noncoding RNAs in axonal degeneration caused due to traumatic brain injury and in other neurodegenerative diseases like Alzheimer and Parkinson

Broad Area of Research: Physical Sciences

Position Code	Name of Faculty	Research Area
PS01	Achintya Singha	Study of electronic and vibrational properties of nanoscale materials
PS02	Dhruba Gupta	Nuclear Astrophysics
PS03	Soumen Roy	Interdisciplinary statistical physics, Quantum entanglement on networks, Complex systems, Networks, Information theory, Biophysics
PS04	Supriya Das	Study and characterization of matter created in Relativistic Heavy-ion collisions
PS05	Suman Kumar Banik	Study of information processing in biochemical networks