



**GOVERNMENT OF INDIA**  
**BHABHA ATOMIC RESEARCH CENTRE**  
**ADVERTISEMENT NO. 04/2023(R-V)**  
**SELECTION OF JUNIOR RESEARCH FELLOWS**  
**NO. OF FELLOWSHIPS: 105 (Indicative)**



**LAST DATE FOR RECEIPT OF APPLICATION: 31/08/2023**

Bhabha Atomic Research Centre (BARC), Mumbai, is a premier institute dedicated to the intense multi-disciplinary research supporting the ambitious nuclear energy programme of India. BARC is empowering young, talented and motivated students to contribute to path-breaking discoveries in frontier areas of scientific research and cutting-edge technologies by offering **Junior Research Fellowships** in the areas of Physical, Chemical and Life Sciences.

Applications are invited from interested students for the award of **Junior Research Fellowships** at this Centre.

All the selected candidates will register for Ph.D. in Homi Bhabha National Institute (HBNI, a deemed to be University of Department of Atomic Energy).

**1. AREAS OF RESEARCH PROJECTS IN SCIENCE DISCIPLINES**

Physical Sciences	Charged Particle Accelerator Development, Nuclear Physics using Accelerators, Neutrino related experiments, Astrophysics using gamma-ray Telescopes, Plasma Physics, Laser based Physics, Spectroscopy of Atoms and Molecules, Condensed Matter Physics at low temperature, High Pressure and Magnetic fields, Crystallography, thin films, Nano materials, Optics, Physics of sensors and detectors, Synchrotron Radiation and Neutron scattering based experiments and Computational & Theoretical Physics.
Chemical Sciences	Materials Chemistry, Solid State and High Temperature Chemistry, Nuclear Materials, Nano materials, Electrochemistry, Spectroscopy, Radiation and Photochemistry, Advanced Separation Techniques, Analytical Sciences, Catalysis, Materials for Energy Conversion and Storage, Chemical Sensors, Polymers, Theoretical and Computational Chemistry, Nuclear and Radiochemistry, Actinide Chemistry, Radiation Processing, Radiopharmaceuticals, Active Pharmaceutical Ingredients
Life Sciences	Cancer Biology, Diagnostics, Therapeutics, Immunology, Microbiome, Targeted Therapy, Functional Organic Materials, Low and High Radiation Dose Response, Nuclear Medicines, Structural Biology of Proteins, Prokaryotic Stress Biology, Bioremediation, CRISPR Biology, TB Diagnostics & Treatment, Mutation Breeding, Plant & Agriculture Biotechnology, Genetic Engineering, Radiation Treatment of Food, Food Preservation & Packaging, Biosensors and Pest Controls, Biofilms, Biofouling and Thermal Ecology.

The Centre also encourages high quality inter-disciplinary research in areas relevant to its programmes.

## 2. AGE LIMIT :

The candidate must be an Indian national. The candidate should be less than 28 years of age as on last date for receipt of application. Age relaxation is applicable up to 3 years in case of Other Backward Class Non Creamy Layer (OBC-NCL) applicants, 5 years in case of Scheduled Caste and Scheduled Tribe applicants and 10 years in case of persons with benchmark disabilities(PwBD) applicants.

Note : ONLY SSC/ MATRICULATION CERTIFICATE OR BIRTH CERTIFICATE WILL BE ACCEPTED AS PROOF OF DATE OF BIRTH, NO SUBSEQUENT REQUEST FOR CHANGE SHALL BE ENTERTAINED.

## 3. ELIGIBILITY CRITERIA :

- I. Candidates should have consistently good academic record and should have secured minimum of 60% aggregate in B.Sc. and 55% aggregate in M.Sc. from a recognized University.
- II. a. Candidates those who have completed and awaiting the final results of M.Sc. Degree may also apply. However, such candidates should necessarily upload copies of the mark sheets of B.Sc. Degree and a copy of M.Sc. first year mark sheet(s) along with the application. Such candidates should have scored marks above 60% aggregate until the previous semester/year and minimum aggregate of 60% in B.Sc. level.  
b. In case appearing candidates are selected for JRF, they should secure 55% marks in aggregate in the M.Sc. examination and submit their M.Sc. Degree and mark sheet on the date of the interview, failing which their candidature may be terminated.  
c. Candidates with five years integrated M.Sc. degree should have secured minimum of 55% aggregate in M.Sc./B.S.-M.S. (Dual degree).
- III. Relevant certificates to this effect should be submitted at the time of joining the Centre. Wherever the results are declared as CGPA/GPA, it may be converted to percentage and entered. (The formula prescribed by the institute for conversion to be indicated at the time of verification).

**M.Sc. / Integrated M. Sc** is the eligible qualification with the following subjects :-

Post Code	Main Subject	Additional Requirements
1	Physics <sup>@</sup>	Mathematics must be one of the subject at M.Sc. level
2	Chemistry <sup>#</sup>  (General/ Applied/ Organic/ Inorganic/ Physical/ Analytical and Biochemistry)	Physics as ancillary subject at B.Sc. Level; and Mathematics at H.Sc. level  (Candidates who have not scored passing marks in Physics at B.Sc level and/or in Mathematics at H.Sc. level are <b>NOT</b> eligible to apply)

3	<p>Life sciences*</p> <p>(LifeScience /Botany/ Zoology/ Agriculture/ Biochemistry/ Microbiology/ Molecular Biology/ Biotechnology/ Marine Biology/ Bioinformatics/ Genetics/ Plant Science/ Plant Breeding/ Plant Pathology/ Entomology/ Animal Science/ Biomedical Sciences and Biosciences)</p>	<p>M.Sc. applicants should have at least one of the following subjects at B.Sc. Level:</p> <p>Physics or Chemistry or Biochemistry or Agriculture Chemistry as a main subject.</p> <p>In case of five-year integrated M.Sc. the candidates should have studied any one of the above subjects as a subsidiary/ ancillary level.</p>
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@Candidates with M.Sc / Integrated M.Sc with specializations in Electronics and Instrumentation are **NOT** eligible to apply.

#Candidates with M.Sc / Integrated M.Sc in Industrial Chemistry, Polymer Chemistry, Textile Chemistry, Environmental Chemistry, Pharmaceutical Chemistry, Petroleum Chemistry, Nanoscience, Nanotechnology, M. Pharm. in Pharmaceutical Analysis are **NOT** eligible

\*Candidates with M.Sc/Integrated M.Sc in Fisheries, Horticulture, Forestry, Agronomy, Animal Husbandry, Bio-analytical Sciences, Polymer Science, Medicine/Medical Science, Pharmaceutical Science and Home Science are **NOT** eligible to apply. Candidates with B.Tech./ M.Tech. degree in any of the Life Sciences disciplines are **NOT** eligible.

**IV. In addition to the above, ONLY those candidates who have appeared and successfully cleared at least one of the following qualifying examinations will be shortlisted for interview at BARC, Mumbai.** Applications will be scrutinized and suitability of candidates will be decided on the basis of their academic performance and qualifying examination. The recommendation / decision of the Selection Committee will be final and binding.

- With valid UGC-CSIR-NET Fellowship (SLET/ Lectureship is not eligible)
- With valid JEST score
- With valid ICMR-JRF Test, ICAR-JRF Test
- With valid DBT-JRB Biotechnology Eligibility Test
- With valid GATE Score in Physics/ Chemistry /Life Sciences/ Biotechnology

At the time of application, candidates should clearly indicate the details of the qualifying examinations listed as above for consideration of application and submit the proof at the time of interview.

#### 4. SELECTION PROCEDURE

Applications will be scrutinized and candidates will be shortlisted for interview based on their academic performance and score obtained in the national qualifying exams. The recommendation/decision of the Selection Committee will be final and binding.

A first screening will be made based on previous academic records of the applicants.

A further shortlisting of candidates will be made based on the performance in nation-wide screening test (Qualifying Examination).

## 5. GENERAL INSTRUCTIONS

- i. Before applying, the candidate should ensure that he/ she fulfills all the eligibility conditions mentioned in the advertisement. Candidates should ensure that they fill in the correct information. Furnishing of incomplete, false or misleading information shall render the application liable to be rejected. The candidate would be admitted to various stages of the recruitment process based on the information furnished by the candidate in his/ her application. Only a summary scrutiny of the application would be made before the final stage of the recruitment process and detailed scrutiny of the eligibility of the candidate would be done only at the final stage of the recruitment process. As such, the candidature of the applicant shall remain provisional till detailed scrutiny is undertaken and the candidate is found eligible in all respects. BARC would be at liberty to reject any application at any stage of the recruitment process if the candidate is found ineligible for the post or if it comes to notice that the candidate has furnished false information. The decision of BARC shall be final in deciding the eligibility of the candidate. The mere fact that a call letter has been issued to the candidate and allowed to appear in the interview will not imply that his/ her candidature has been finally cleared or that entries made by the candidate in his/ her application have been accepted as true and correct.
- ii. Age, qualification, experience, community status, creamy layer status will be reckoned as on the closing date for submission of application online.
- iii. At the time of interview, candidates will be required to bring the printouts of their online applications, original marksheets/ certificates, etc. a copy of their marksheets/ certificates.
- iv. SC/ST/OBC (clearly indicating Creamy Layer status) certificate should be as per the format prescribed for employment in Government of India which is available in 'Job Application -->Download forms' of the portal.
- v. The original certificates/ documents of the candidates will be verified at the final stage of the recruitment process. The shortlisted candidates must bring all original certificates of educational qualifications, experience, date of birth, caste certificate in the prescribed format, disability certificate in respect of PwBD candidates, those who are in employment under any Central/ State Govt./Public Sector Undertakings/ Corporations/ Local Govt. etc. should submit a No Objection Certificate from the employer at the time of interview.
- vi. The list of candidates selected for the award of Junior Research Fellowship will be displayed on the BARC website. The selected candidates will also be informed by email. The final induction of the selected candidates as JRFs will be subject to production of all necessary documents in original (Proof of Date of Birth/ Caste Certificate/ PwBD certificate if applicable, S.S.C/H.Sc./B.Sc./ M.Sc. degree and Mark sheets) on the dates intimated to the candidates by the Department.
- vii. The number of fellowships indicated in this advertisement is approximate and may vary as per the requirement at the time of final selection. The Centre reserves the right not to fill up the fellowships if it so desires. BARC reserves the right to screen and call only such candidate as are found prima-facie suitable for being considered by the Selection Committee. Thus, just fulfilling the prescribed conditions should not entitle one to be called for interview. The fellowship shall not confer any claim or right for regular

employment in the Centre or any Unit of Department of Atomic Energy. Opportunity for meritorious candidates exists for the position of visiting scientist under KSKRA scheme.

- viii. Candidates who are NOT meeting the mentioned qualifications NEED NOT apply.
- ix. The period of service rendered as research fellow will not be counted in any post of DAE/Other Government Department.
- x. Admission shall not be claimed by any candidate as a matter of right. The admission shall be entirely at the discretion of the Selection Committee, which may refuse to admit any candidate without assigning any reason thereof.
- xi. No correspondence whatsoever form will be entertained from candidates regarding reason for not being called for interview/ outcome of interview.
- xii. Selected candidates should be ready to carry out their PhD work at BARC, Mumbai and other BARC facilities at Kalpakkam, Indore, Kolkata, Hyderabad and Vizag.

## 6. APPLICATION FEE

- i) Application fee of ₹500/- (Rupees five hundred only) is payable at the time of submission of online application. Mode of payment of the Application Fee is only through **Online** mode using net banking/ debit card/credit card, UPI etc.
- ii) Application fee is exempted for Women candidates and candidates belonging to Scheduled Caste, Scheduled Tribe and Persons with Benchmark Disabilities.
- iii) After submission of online application, the applicant has to make online payment of application fee using Application Number generated. If application fee is not paid, the application will be treated as incomplete and **rejected**.
- iv) For payment of fee, candidates should click on the 'Make Payment' option under the 'My Account' menu. The Application number generated while submission of application can be selected from Drop-down box and on clicking the submit button, candidates can go to the next page for making the online payment.
- v) Detailed guidelines for payment of application fee is available under the menu "**Job application →How to pay Application fee.**"
- vi) Fee once paid shall not be refunded under any circumstances and cannot be held in reserve for any other recruitment.
- vii) **Application fee should be paid on or before the last date of receipt of online application. Candidates are advised to submit the online application much before the closing date and not to wait till the last date to avoid the possibility of disconnection/ inability or failure to login to the website on account of heavy load on the website during the closing days.**

## 7. HOW TO APPLY ONLINE :

- i. Facility for submission of online application will be available from 04/08/2023 to 31/08/2023. For detailed information about online submission of application and procedure for payment of application fee, please visit <https://recruit.barc.gov.in>. Please read the instructions given on Home page of our website by clicking the option 'How to apply'.
- ii. Applications will be accepted ONLINE only. Candidate **should not** submit multiple applications.
- iii. Candidate should read the instructions in the advertisement and online application form carefully before making any entry or selecting any option. Before filling application form, candidates should keep ready the necessary documents/ certificates required. Candidate is required to fill up personal details and details of discipline applied for etc. While filling up the online application form candidates should ensure that all the required details are entered.
- iv. While filling the application online, **it is mandatory** for the candidates to indicate all their Educational and Professional Qualifications under the column 'Educational & Professional Qualifications', failing which their application will not be processed.

In case candidates are "pursuing MSc" Or "pursuing MSc(Intg)", correct option should be selected from the 'Name of Examination' Drop-down box. Those who have completed M.Sc. may select "MSc." OR "MSc.(Intg)" from the 'Name of Examination' Drop-down box.

- v. A valid e-mail ID and Mobile Number is mandatory for submitting application online and email ID should be kept active till the declaration of results. BARC will send call letter for interview to the registered/ given e-mail ID or candidates may be required to download from the website of BARC. No correspondence will be sent through post/ courier.
- vi. Recently taken front facing passport size photograph in JPEG format with size not exceeding 20 KB should be uploaded. The candidate must ensure that their photo and signature is clearly visible in preview at the time of filling application in online mode. If photo/ signature displayed is small or not visible in preview on website, that means photo/ signature is not as per the required format and in that case the application will be rejected. Photograph not in conformity with the specification shall render the application liable to be rejected.
- vii. **Candidate should upload their SSC/H.Sc./B.Sc./M.Sc. Mark sheets and Degree Certificate along with the valid Qualifying Examination Score Card and Caste certificate(if applicable), while applying online. The online applications without the attachment of these documents shall be disqualified. Individual semester wise marksheets of B.Sc. and M.Sc. may be compressed separately into a single file and uploaded.**
- viii. Before clicking the submit button, the candidate is advised to check that all the details filled in are correct. Candidate may also ensure that name, date of birth, etc., are entered correctly in the application form as per Secondary School Certificate (SSC). Any incorrect information may disqualify candidature. After final submission of application no request for change/ correction in any of the information in the application form shall be entertained under any circumstances.

- ix. In case the original SSC/H.Sc./B.Sc./M.Sc./Qualifying Exam Score card/mark sheets/certificates have been submitted to any other institution for pursuing other courses, copies can be uploaded and candidates are required to submit a letter to that effect from the Head of that institution at the time of interview.
- x. In case of any difficulty in applying online or uploading the document, please mail your complaints along with screenshots to: [jrf@barc.gov.in](mailto:jrf@barc.gov.in)

## 8. TRAVELLING ALLOWANCE

Candidates called for the interview will be reimbursed to and fro Third AC railway fare by the shortest route from the registered address (city) mentioned in their application to Mumbai, (subject to production of original tickets) as per rules. In case of candidates who travel by air, only the AC-III tier normal fare or actual fare, whichever is less, from the registered address (city) mentioned in their application to Mumbai, will be reimbursed on production of Air Ticket and Boarding pass.

## 9. MEDICAL

The selected candidates are eligible to join the Contributory Health Services Scheme of this Centre for self on payment of prescribed contribution.

## 10. FELLOWSHIP AND TENURE

The selected candidates will be initially taken as **Junior Research Fellows (JRF)** and will be paid a fellowship of **₹31,000/- per month**. The fellowship will be provided initially for a period of **two years**. Continuation of the fellowship is subject to satisfactory performance and review at the end of each year. On satisfactory performance, the tenure of Fellowship will be further extended and upgraded to **Senior Research Fellowship (SRF)** from the **third year** onwards with a fellowship of **₹35000/- per month (consolidated)**. The total period of the fellowship shall in no case exceed **five years**. They are entitled for contingency grant including book allowance of **₹40,000/- per year**.

## 11. ACCOMODATION

The selected candidates will be provided subsidized Hostel Accommodation and Ph.D programme being a residential programme, the stay in provided hostel accommodation is mandatory (in whichever station the hostel accommodation is available). At stations where hostel accommodation is not provided, the candidates will be entitled for House rent Allowance (HRA) as per prevailing Government guidelines (Presently HRA is @ 27% of the Fellowship {₹8370/-p.m. for (JRF) and ₹9450/-p.m. for (SRF) for Mumbai}.

## 12. CANCELLATION OF THE CANDIDATURE

Candidate is cautioned not to furnish any incomplete, false or misleading information or submit any document which is defective, forged or fabricated or otherwise not admissible or claim fraudulently SC/ST/OBC/Person with Disability status etc., or resort to any sort of malpractice during the selection process. Notwithstanding verification of original documents during various stages of the selection process, if any such case is detected at any stage of the selection process or later on, this Centre reserves the right to withdraw/cancel candidature or selection apart from taking other appropriate legal action.

Candidates will not be allowed to appear for the interview if they fail to bring the printout of the Application, a valid ORIGINAL photo identity card (such a Voter ID, Driving License, AADHAR Card, Passport, College ID) original marksheets/certificates as well as one set of self-attested photo copy of all the documents at the time of interview.

### **CALENDAR WITH IMPORTANT DEADLINES**

Receipt of applications	04/08/2023
Last date for receipt of applications	31/08/2023
Interview (tentative dates)	September/October, 2023

### **Important Notes :**

1) The Application is deemed to have been received only after the uploading of the following by the last date of receipt of application, failing which the application will not be processed:-

- a) Online application duly filled and uploaded signature and photograph.
- b) Prescribed fee.
- c) Online uploading of S.S.C., H.Sc., B.Sc., M.Sc., Mark Sheets, Degree certificates, Qualifying Examination Score Certificate and Caste Certificate.

2) **All information related to the Screening/Interview/Selection will be made available on the website i.e. <http://www.barc.gov.in> and <https://recruit.barc.gov.in>.** Candidates are advised to visit the website periodically for information and updates in this regard. Information displayed on the website will be deemed as intimation to the candidates.

3) Any legal disputes arising out of this notification are subject to Mumbai jurisdiction only and in case of any dispute, English version of detailed Advertisement placed on BARC website shall be referred.

4) Corrigendum/Addendum, if any, pertaining to this advertisement will be uploaded only on BARC websites.

### **CANVASSING IN ANY FORM WILL BE A DISQUALIFICATION**

**RECORD OF THE NON-SELECTED CANDIDATES SHALL NOT BE PRESERVED BEYOND SIX MONTHS FROM THE DATE OF PUBLICATION OF SELECT LIST.**