

**Department of Physics  
Institute of Science  
Banaras Hindu University  
Varanasi 221005**

Ref. No. BHU/PHY/JL/STARS-2/JRF/2025/03

Date:13.05.2026

**Advertisement for Junior Research Fellow (JRF)**

Applications are invited from eligible candidates for **ONE** position of **Junior Research Fellow** in a sponsored research project under Dr. Jayeeta Lahiri, Assistant Professor, Department of Physics, Banaras Hindu University on or before **6<sup>th</sup> June 2026**.

<b>Project Title</b>	<i>Investigation of Graphene Hexagonal Boron Nitride nanocomposites for electromagnetic shielding interference application using THz Time domain spectroscopy</i>
<b>Project description</b>	In this project, nanocomposite Graphene and hexagonal Boron Nitride will be utilised used as EMI shielding material in the THz range. The properties of this nanocomposites will be tuned by varying composition, structure, thickness (Graphene Boron Nitride multilayers, B <sub>x</sub> C <sub>y</sub> N <sub>z</sub> 2D alloys, and BCN nanoparticles) to get optimum broadband EMI shielding efficiencies. The nanocomposite will be synthesized by hydrothermal synthesis and chemical vapour deposition. We will test the EMI shielding capabilities of these nanocomposites using Terahertz Time domain spectroscopy (THz TDS). For this project, BHU is the coordinating institute, IIT (BHU) Varanasi and University of Hyderabad are collaborating institutes. The JRF selected under this project may be required to undertake components of research at either of these institutes.
<b>Funding Body</b>	Ministry of Education (MoE) sponsored project under the Scheme for Transformational and Advanced Research in Sciences (STARS).
<b>Duration</b>	<b>1 year</b> (The post is purely temporary and co-terminus with the project.)
<b>Job Role</b>	The role of the JRF will be to design and perform research experiments, analyse results, write reports and manuscripts, and maintaining lab notebooks.
<b>Essential Qualification</b>	<ul style="list-style-type: none"> <li>• B.Sc. in Physics/Applied Physics/Materials Science/ Nanoscience with minimum 55% or equivalent marks.</li> <li>• M.Sc. in Physics/Applied Physics/Materials Science/ Nanoscience with minimum 55% or equivalent marks</li> </ul>
<b>Desirable Qualifications</b>	<ul style="list-style-type: none"> <li>• CSIR-UGC NET Qualified including lectureship or GATE qualified.</li> <li>• Candidates with prior experimental research experience will be preferred.</li> <li>• Practical experience in Raman spectroscopy, Optical Microscopy, Scanning Electron Microscopy, and UV-Vis spectroscopy is preferred.</li> </ul>
<b>Fellowship</b>	<ul style="list-style-type: none"> <li>• 1<sup>st</sup> and 2<sup>nd</sup> year salary: ₹ 37,000/- p.m. + HRA.</li> <li>• 3<sup>rd</sup> year salary: ₹ 43,000/- p.m. + HRA.</li> </ul>
<b>Age Limit</b>	<ul style="list-style-type: none"> <li>• Upper age limit- 28 years (5 years' relaxation for Female/SC/ST/ Physically Handicapped Candidate)</li> </ul>

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**Procedure to apply for the JRF position**

1. Interested candidates are requested to submit their applications **ONLINE** along with all supporting documents via Google Form <https://forms.gle/nVfejG2vCKfr3aVb6>
2. The following documents need to be uploaded for online application:
  - (i) CV with permanent and correspondence address, names of father and mother, contact number and e-mail address, details of educational career starting from High School to highest degree, any research experience. In your CV, please mention experience and expertise regarding use of these specific instrumentation: Raman spectroscopy, Scanning Electron Microscopy, and X-ray Diffraction. Without mentioning the level of expertise, the application will not be evaluated.
  - (ii) Self Attested copies of all degree certificates.
  - (iii) One-page Summary of Master's thesis/dissertation.
  - (iv) Name and email of at least one referees for Letter of Recommendation.
3. **The application is liable to be rejected if any of the above documents are missing.**

**Interview procedure:** Only shortlisted candidates will be called for an interview in-person. The date of the interview will be communicated via email. **No TA/DA will be paid if called for an interview.** Candidates called for the interview should bring the original certificates/degrees for verification. For more information you can contact by email at [jl.physics@bhu.ac.in](mailto:jl.physics@bhu.ac.in).

- Note:**
- (i) PI has the discretion to restrict the number of candidates to be called for an interview based on qualifications and experience higher than the minimum listed in the advertisement.
  - (ii) PI reserves the right to only fill the position if a suitable candidate is found.
  - (iii) The selected candidate is expected to join within 15 days of the offer.
  - (iv) During the tenure of JRF, the selected candidate may get the chance to pursue a Ph.D. in Physics in the Department of Physics at Banaras Hindu University, Varanasi.



**Dr. Jayeeta Lahiri**  
Associate Professor  
Department of Physics  
Banaras Hindu University