

Inter University Accelerator Centre
(An Autonomous Centre of University Grants Commission)
Aruna Asaf Ali Marg, New Delhi.
Advertisement No: - 07/2025

Advertisement for the position of Project Assistant

Inter University Accelerator Centre (IUAC) intends to appoint a project assistant to work in a project entitled “**Absolute Measurement of the Quantum-Mechanical Ground-State Energy of a Harmonic Oscillator**” under the inclusivity Research Grant (IRG) scheme of the Anusandhan National Research Foundation (ANRF).

Objective:

Quantum mechanics tells us that the lowest energy state of any bound system, called the ground state, can never be exactly zero. This tiny but unavoidable energy, known as zero-point energy (ZPE), comes from the Heisenberg uncertainty principle. Scientists have debated its physical reality for decades. While effects like the Casimir force, the Lamb shift, and spontaneous emission strongly suggest it exists, no one has ever directly measured ZPE for a single particle. In this project, we will trap electrons in a cryogenic Penning trap, where a combination of electric and magnetic fields holds them in place. This setup lets us create and control a one-dimensional quantum oscillator, whose energy we can measure very precisely. By tuning the trap and studying the electrons’ motion, we aim to directly determine their zero-point energy, going beyond the indirect evidence available so far.

Qualification: Bachelor’s Degree with Physics/ Three (03) years Diploma in Engineering and Technology with physics background.

Desirable: M.Sc. (Physics)

Number of positions: 1

Emoluments: Rs.27,000/- per month plus HRA (consolidated as per ANRF guidelines).

Duration of the project: Maximum 30 months starting 1st October 2025.

Interested candidates may send the applications in the prescribed format only through e-mail (rectt.iuac@gmail.com) with the following documents:

- Application form/ A detailed CV
- Self-attested copies of educational qualifications
- Experience certificate

Subject of the E-mail must be '**Application for Project Assistant-07/2025**'. The application and all the documents must be sent as a single file in pdf format with the name of the applicant as file name.

“All personnel, including Research personnel engaged under the project, for the full/part duration of the project, are to be treated as temporary employees and will be governed by the administrative rules/service conditions (for leave, TA/DA etc.) of the host institute i.e. I.U.A.C. They are not to be treated as employees of the ANRF or Government of India nor permanent employees of the host institute and the ANRF will have no liability, whatsoever, for the personnel after completion of the project duration”.