JOB DESCRIPTION

Joining date: 1st July 2025.

Salary: Rs. 42,000/- per month.

Duration: Upto March 2026

Application Deadline: 15th June 2025, till the position is filled up**.**

Position Title: Project Associate

Reporting to: Professor Samyaday Choudhury

School of Arts and Sciences, Ahmedabad University, Commerce Six Roads, Navrangpura, Ahmedabad, 380009, Gujarat

About the University/School/Centre: Ahmedabad University is a private, non-profit research university that offers students a liberal education focused on interdisciplinary learning and research thinking.

Role Summary: The Astronomy & Astrophysics group at Ahmedabad University is accepting applications for the position of a Project Associate to work on a project titled "**Study of Interstellar medium filaments detection algorithms and application on the Galactic plane TeraHertz surveys".** The Project Associate would work towards carrying out a detailed comparative study of existing algorithms for identifying Interstellar medium (ISM) filamentary structures by applying them to relevant data products (Thz and multi-wavelength data sets), with the help of HPC operation. The project is crucial for developing future data analysis tools for ISM, and answering fundamental questions associated with star formation. The Project Associate will work with Professor Samyaday Choudhury and scientists at the Space Applications Centre (SAC-ISRO, Ahmedabad). Strongly motivated candidates from all genders and diverse backgrounds are encouraged to apply for this position.

Responsibilities:

1. Employ and explore various algorithms to identify ISM filamentary structure.
2. Conduct a comprehensive survey of THz and complementary data from various instruments, data compilation and preprocessing.
3. Carry out statistical comparisons of different identification methods.
4. Carry out analysis over large-data sets using HPC.
5. Present results in conferences/meetings.
6. Compile Report.

Key Skills:

1. Strong fundamentals in computer sciences and image analysis techniques.
2. Strong coding skills in Python and in other languages (e.g., C, C++, Fortran).
3. Knowledge of HPC operation.
4. Knowledge of statistical techniques.
5. Knowledge of Linux OS.
6. Good communication skills in English.

Qualification:

- ME/Mtech/MS/MSc/BS-MS from a recognized University or Institute.
- BE/Btech from a recognized University or Institute.

Candidates with the following Experience will be given preference: Has carried out projects on Thz (sub-mm) data sets in Astronomy; Carried out RAW data-analysis related projects from ground or space-based telescopes; Displayed proficiency in machine learning methods; Credited courses on Introductory Astronomy & Astrophysics

How to Apply:

1. **Deadline: 15th June 2025,** till the position is filled up.

2. The candidates must express their interest by writing a "Cover Letter", which **must not exceed 1 page.** The letter must highlight the relevant skills and experiences from past projects/courses **[NOTE: AI-generated applications shall be rejected].**

3. CV – must include **Two Referees**' names, phone numbers, email addresses and designation.

4. Marksheet of Undergraduate and Postgraduate degrees (as applicable).

5. All the above documents must be combined as a **single PDF, titled, "Appl: 2025-PA-SAC-AhdUni-Thz-CANDIDATE's NAME" in the order mentioned (10 MB max)** and emailed to samyaday.choudhury@ahduni.edu.in, with the **subject as: "Appl: 2025-PA-SAC-AhdUni-Thz-CANDIDATE's NAME".**

6. Shortlisted candidates will be contacted and further information will be provided.

7. Any questions regarding the project should be directed to samyaday.choudhury@ahduni.edu.in