

## Advertisement for the Position of Junior Research Fellow (JRF)

Applications are invited for the Junior Research Fellow (JRF) within a project funded by Anusandhan National Research Foundation (ANRF) at the Department of Chemical Engineering, IIT Hyderabad.

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| <b>Name of the post</b>    | Junior Research Fellow (JRF)   |
| <b>Sponsoring agency</b>   | Anusandhan National Research Foundation (ANRF)   |
| <b>Number of vacancies</b> | One (1)  |
| <b>Project title</b>       | Self-assembly of colloids in designing light weight solid foams  |
| <b>Job description</b>     | <p>This project is on the freezing-induced self-assembly of the shape-anisotropic colloidal particles. The aim is to develop a thorough mapping of how the particle aspect ratio, particle/polymer concentration, freezing rate, and freezing direction can be manipulated in designing lightweight particulate foams. Further developing a correlation of the mechanical and thermal performance of the particulate foams to their microstructural features.</p> <p>The project will involve the synthesis of colloidal building blocks and their assembly. Microstructural characterization using optical microscopy, SEM, X-ray tomography, and image analysis, as well as understanding mechanical and thermal performance using UTM, rheometry, and thermogravimetric test.</p> |
| <b>Qualifications</b>      | <p><b>Essential:</b> M.Tech/ME degree in Chemical Engineering/Chemical Technology/Biotechnology/Material science &amp; Engineering/ aligned engineering disciplines or MSc in Physics/Physical Chemistry. Candidates with exceptional BTech in above mentioned disciplines are also encouraged to apply.</p> <p><b>CGPA Requirement:</b> 6.0 (or 60%) and above in all qualifying degrees</p> <p><b>Desirable:</b> Experience in wet-lab projects specifically synthesis of colloidal particles and handling polymers. Experience in characterization techniques such as optical microscopy, SEM, rheometry.</p>   |
| <b>Age limit</b>           | 35 years (can be relaxed based on applicant's experience and provisions)   |
| <b>Appointment period</b>  | 12 Months (extendable based on performance)  |
| <b>Pay</b>                 | As per Govt. of India and ANRF norms (Rs. 370000 + HRA)  |

### Application Process:

Eligible applicants must submit the application by filling the details in the google form:

<https://forms.gle/3kST5uwxKKUKJkyLA>

Upload the following documents in a single PDF while filling the application.

- ❖ Cover letter describing the background and how it will help to pursue this project.
- ❖ Latest CV
- ❖ A maximum one page statement of interest

### Selection Process:

- **This is a rolling advertisement; the PI will evaluate and shortlist the applications received after every 15 days until suitable candidate is selected.**
- Shortlisted candidates will be informed by email about the online interview date and time.
- Joining will be immediate after selection.