

Advt. No.: IITJMU/R&C/RP00167/A-32

Dated: 10/04/2024

### Advertisement for the Position of JRF

Applications are invited from the interested candidates for the post of Junior Research Fellow (JRF) to work on the project titled "Nucleate pool boiling study in multicomponent solutions/suspensions at varying surface geometry and pressure fields using non-intrusive optical methods" sanctioned by Science and Engineering Research Board (SERB), India.

No. of Positions	Position	Area of Specialization	Duration	Consolidated Salary per Month	Number of Positions
1	Junior Research Fellow	Knowledge in energy and mass transfer through fluids is expected.	01 year (Extendable up to 3 years) Rs 31,000/- + HRA as applicable		01

## Minimum Qualification:

- Essential Qualification:
- 1. M. Tech in Chemical Engineering/ Material Engineering/ Mechanical Engineering / Energy Technology/ Polymer Technology/ Nano-Technology and allied subjects with 65% marks. 5% marks relaxation for ST/SC/PH candidates. Students awaiting results may also apply.
- 2. MSc in Physics with 70% marks. 5% marks relaxation for ST/SC/PH candidates. Students awaiting results may also apply.
- 3. Qualified in any of the following National eligibility test/exams:
  - a. GATE
  - b. CSIR-UGC NET including lectureship (Assistant Professorship)
  - c. National-level examination conducted by Central Govt. Departments and their agencies and Institutions such as DST, DBT, DAE, DOS, DRDO, MHRD, ICAR, ICMR, IIT, IISc, IISER, etc.
- 4. Preference may be given to the candidate having appropriate knowledge of experiment/simulation work in the domain and scientific writing.

**Upper age limit:** 32 years. Age relaxation is applicable for SC/ST/OBC/PH/women candidates as per the norms.

# **Brief Objective of Project:**

1. Design and development of optical instrumentation facility for real-time, non-intrusive investigation of nucleate pool boiling (NPB) as well as cavitation phenomena.

2. Investigation of single bubble dynamics and heat transport through multicomponent solutions/suspensions at varying surface geometry and pressure fields using non-intrusive optical methods

3. Validation of the multiphase flow solver against the experimental data.

4. Performance evaluation and comparison of investigated systems and their respectively developed models with available models on the basis of visual features of bubble dynamics and obtained heat transfer rates.

### **Application Process:**

Duly filled application form along with the requested details, scanned copies of certificates, other supporting documents, should be uploaded through the online portal (https://apply.iitjammu.ac.in/#/home) latest by 18th April, 2024. Please apply through the [contract/project staff/JRF/SRF] tab on the referred application portal. Candidates who are already employed should produce a relieving certificate from their employers if selected. The interview will be conducted for all shortlisted candidates.

# Attention:

- 1. The applicant will be responsible for the authenticity of the information, other documents, and photographs submitted.
- 2. Merely possessing the prescribed qualification does not ensure that the candidate would be called for an Interview. The candidates may be shortlisted based on merit and need for the project.
- 3. Shortlisted candidates will be informed by e-mail about the interview. So, the candidate must provide valid email IDs, phone number information in their applications.
- 4. Shortlisted candidates must present themselves for the interview on the interview date with an updated CV and original and attested photocopies of mark sheets/certificates in support of their academic qualifications. Only shortlisted candidates will be called for the interview. The time of the interview will be informed to the shortlisted candidates by e-mail. The interview will be held by using the online platform.
- 5. Candidates who are already employed should produce a relieving certificate from their employers if selected.
- 6. The last date for receiving the duly filled in application is 18th April, 2024, through an online portal.
- 7. The date of interview will be informed to the shortlisted candidates through email.
- 8. The selected JRF may get an opportunity to peruse PhD at IIT Jammu as per institute norms.
- 9. Candidate must upload all the documents with respect to educational qualification, Experience etc.

#### Address for Correspondence:

#### Dr. Yogesh Madhukarrao Nimdeo

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