



Advt. No.: IITJMU/R&C/RP00245/A-43

Dated: 26 June 2024

### Advertisement for the Position of JRF

Applications are invited from interested Indian candidates for the post of Junior Research Fellow (JRF) to work on the project titled “**Development of Efficient Algorithms to integrate Nonlinear Circuit Elements into Implicit and Hybrid-Implicit-Explicit FDTD Methods**” sanctioned by, SERB-CRG.

The Junior Research Fellow will be appointed initially for six months (on contract) and may be considered for extension based on the performance review. **Depending upon the performance of the selected candidate, he/she may get the chance to the PhD under the same project.**

No. of Positions	Position	Area of Research	Duration	Consolidated Salary per Month
1	Junior Research Fellow	RF & Microwave Engineering, Computational Electromagnetics	Initially for 1 year. Based on the satisfactory performance, may be extendable up to 3 years	INR 31,000* + HRA as applicable

\* Revised emolument as per DST notification DST/PCPM/Z-06/2022 dated 26 June 2023 will be provided subject to release / approval of funding agency.

#### Minimum Qualification:

1. MTech. /M.E. with specialization in RF & Microwave Engineering, Microwave Engineering, or any other relevant areas; and B.Tech./ B.E. in ECE/ETC/E&C/E&TC/EE/EEE with minimum 60% marks (or 6.5/ 10.0 CGPA) throughout starting from Class XII. Valid GATE score is preferable.

OR

B.Tech./B.E. degree in ECE/ETC/E&C/E&TC/EE/EEE with minimum 60% marks (or 6.5/ 10.0 CGPA) throughout starting from Class XII, valid GATE score in EC Paper, and expertise/experience in RF & Microwave Engineering, Microwave Engineering, or any other relevant areas.

2. Upper age limit: 30 years (Age relaxation: upper age limit is relaxable up to 5 years for SC/ST/OBC/women and physically handicapped candidates.

#### Desirable:

1. Strong knowledge of Engineering Electromagnetics.
2. Basic knowledge of RF and Microwave Engineering.
3. Basic knowledge of Coding/Programming.

#### Brief Objective of Project:

To Develop of novel Algorithms to integrate Nonlinear Circuit Elements such as diodes, BJT, FET into Implicit and Hybrid-Implicit-Explicit finite-difference time-domain (FDTD) Methods. The FDTD method is a time-domain numerical technique, which is used to simulate various electromagnetic structures to evaluate the performance of the structure for a wide range of frequencies.

### Job Description:

The selected candidate is expected to work on developing novel algorithms for the FDTD methods. It is expected that the selected candidate should have strong knowledge of engineering electromagnetics and keen desire to learn new technologies and concepts. The project will be implemented using C, Python and MATLAB. Therefore, good knowledge of programming will be required to execute the project.

### 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 8th July 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 e-mail 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 8th July, 2024, through the 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 pursue PhD at IIT Jammu as per institute norms subject to their performance evaluation and suitability for PhD program.

### Address for Correspondence:

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