



National Institute of Technology Goa

Farmagudi, Ponda, Goa 403 401

(An Institution of National Importance under MHRD, Govt. of India)

Department of Computer Science and Engineering

Advt. No: NITG/CSE/2021/OW/57

Dated: 7/12/2021

Advertisement for the Position of Junior Research Fellow (JRF) under SERB, DST, GOI

Applications are invited from the interested candidates for the post of JRF positions to work on the R&D project titled “**Developing Smart Controller for Optimum Utilization of Energy and Trustworthy Management in a Micro Grid Environment**”, sanctioned under **IMPacting Research INnovation and Technology-2C1 (IMPRINT-2C1)** by **Science and Engineering Research Board (SERB), Dept. of Science and Technology (DST), Govt. of India**. The JRFs will be appointed initially for six months (contractual) and their services will be extended for one more year based on performance review.

Name of Project Investigator : Dr. Chirag Navinchandra Modi
Department : Computer Science and Engineering
Name of Co-Investigator : Dr. C. Vyjayanthi
Department : Electrical and Electronics Engineering
Duration of the project : 3 Years (Dec 2019-Dec 2022)

Name of the Position	Maximum Duration	Consolidated Salary	Eligibility Criteria	No. of Positions
JRF-Junior Research Fellow	36 Months	Rs. 31,000 (Per month upto 2 years) and Rs. 35,000 (Per month for 3rd year) + Other allowances as per Institute norms	M.Tech./M.E./B.Tech./B.E. in Computer Science and Engineering/ Electrical Engineering/Electronics and Communication Engineering with NET/GATE and at least 6.5 CGPA or 60 percent marks in aggregate from a recognized technical institute or university as a full time program	Two



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Desirable Qualification: A strong knowledge in the following areas:

1. Smart grid operations, modeling, power measurements and simulation
2. Understanding of microcontroller-based firmware development. Writing low level peripheral drivers. Understanding of power quality measurement parameters such as Frequency fluctuations, interruption of power supply, voltage sag/swell, deviations of supply voltage, Fast voltage change, Transients, Noise, Harmonics and so on. Modeling of these algorithms and conversion to MCU code
3. Knowledge of relevant tools and programming such as LabVIEW, MATLAB, PCB Fabrication, FPGA code synthesis, Python, .NET, FPGA code synthesis, Sigma data analytics, JAVA, Remix Solidity, etc will be highly encouraged
4. IoT, Blockchain, Machine Learning, Data Analytics, Mobile App Development

Project Objectives:

- ↳ Developing a smart controller for optimum utilization of distributed energy generations and battery storage operating in Grid connected/Islanded mode, while meeting different load profiles under various system conditions in a grid
- ↳ Modeling & Implementation of suitable measurement algorithms for current, voltage, power, frequency parameters.
- ↳ Measurement and analysis of various resources' data and power quality aspects
- ↳ Modeling & implementation of High-speed sampling and buffering techniques for power quality measurement & recording.
- ↳ Modeling & Implementation of suitable feeder protection algorithms in distribution network based on current, voltage, power, frequency parameters.

Important Instructions:

1. Candidate possessing the requisite qualification and experience should apply; in the attached format along with their updated CV latest by **10th January 2022**. The applicant will be responsible for the authenticity of information, other documents and photographs submitted.
2. Mere, possessing the prescribed qualification does not ensure that the candidate would be called for Interview. The Candidates will be shortlisted on the basis of merit and need of the project.
3. Applicants in employment (private, government or any other organization) are required to submit a “No Objection Certificate” from the employer at the time of interview.
4. Application form (as given below) giving all the details and attested copies of certificates, supporting documents and experience should reach to Dr. Chirag Navinchandra Modi (PI) at below given address latest by **10th January 2022**. In addition, duly filled and signed scan copy of Application Form along with the scanned copies of mark sheets/documents can be sent to Dr. Chirag Navinchandra Modi (PI), through e-mail, at: cnmodi@nitgoa.ac.in with subject line “**Application for JRF position for IMPRINT-2C1, SERB Project**”.



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5. The Shortlisted Candidates will be informed by e-mail (apart from NIT Goa website "www.nitgoa.ac.in") along with the date and time of the written test/interview. No other letter will be sent to the correspondence address. So, the candidates are advised to check their email regularly.
6. The shortlisted candidates have to present themselves for the written test and interview with updated CV, application form, original and attested photocopies of mark sheets/certificates in support of their academic qualifications.
7. No TA/DA shall be paid to candidates for attending the Interview and/or joining the position.
8. The appointment is for a time bound project and the candidate is required to work dedicatedly for the successful completion of the project. Selected candidate has to join immediately.
9. Incomplete application forms and forms received after due date will be summarily rejected.
10. All the Terms and Conditions for this recruitment will be as per guidelines of SERB, DST, Govt. of India.

NOTE: The application form must be send to the following address. The envelope containing the application should be super-scribed as "**Application for JRF position for IMPRINT-2C1, SERB Project**".

ADDRESS FOR CORRESPONDENCE

Dr. Chirag Navinchandra Modi
Department of CSE,
National Institute of Technology Goa,
Near ITI Building, Farmagudi, Ponda- 403401
Goa- India.
M: 08080053822
E Mail: cnmodi@nitgoa.ac.in
Website: www.nitgoa.ac.in



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Application for the Position of Junior Research Fellow (JRF) under SERB, DST, GOI

Title of Project: Developing Smart Controller for Optimum Utilization of Energy and Trustworthy Management in a Micro Grid Environment

1. Post Applied for : JRF

2. Name of the Candidate (BLOCKLETTER): _____

3. Father's Name (BLOCKLETTER): _____

4. Mother's Name (BLOCKLETTER): _____

5. (a) Date of Birth: (DD/MM/YYYY) _____

(b) Sex (Male/Female/Other): _____

(c) Marital Status (Married/Single): _____

(d) Category (SC/ST/OBC/PWD/GEN): _____

6. Previous Research experience: (use additional sheet if required) _____

7. Publication(s), if any: (use additional sheet if required) _____

8. GATE/ NET: Score: _____ Rank: _____ Specialization: _____ Year: _____

9. Academic Qualification: (Starting from Standard 10 or equivalent Examination)

Paste here a recent
passport size
photograph

Name of Exam Passed	Name of the School/College/Institute/University	Year of Passing	Discipline/Specialization	Percentage of Marks/CGPA



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10. (a) Address for Communication: (BLOCKLETTER)

(b) Contact No. (Mobile)

(c) E-mail ID :

11. Contact Details of two referees:

	Referee I	Referee II
Name :		
Designation :		
Organization:		
Office Address :		
Office Phone Number:		
Email ID:		

12. Experience details:

I do here by declare that the information furnished in this application is true to the best of my knowledge and belief. If selected, I promise to abide by the rules and regulations of the Institute.

Date:

Place:

Signature of the candidate