



National Institute of Technology Goa

Farmagudi, Ponda, Goa 403 401

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

Advt. No: NITG/CSE/2022/OW/445

Dated: 4/8/2022

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

Applications are invited from the interested candidates for the post of Junior Research Fellow (JRF) and Senior Research Fellow (SRF) 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.**

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

| Name of the Position | Maximum Duration | Consolidated Salary | Qualifications | 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 and Electronics Engineering/Electronics and Communication Engineering with NET/GATE | Three |
| SRF-Senior Research Fellow | 36 Months | Rs. 35,000 (Per month for 3 years) + Other allowances as per Institute norms | M.Tech./M.E./B.Tech./B.E. in Computer Science and Engineering/ Electrical and Electronics Engineering/ Electronics and Communication Engineering with NET/GATE And two years of research experience | One |

JRF and SRF will be appointed initially for six months (contractual) and their services may be extended based on performance review.



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Eligibility for JRF:

B.Tech/B.E./M.Tech./M.E./equivalent in Computer Science and Engineering or Electrical and Electronics Engineering or 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 in a full-time program.

Eligibility for SRF:

Eligibility prescribed for JRF with two years of research experience.

Desirable Qualification: A strong knowledge in the following areas:

- ↪ IoT, Blockchain, Machine Learning, Data Analytics, Mobile App Development
- ↪ Smart grid operations, modeling, power measurements and simulation
- ↪ Knowledge of relevant tools such as, LabVIEW, MATLAB, PCB Fabrication, Python, .NET, FPGA code synthesis, Sigma data analytics, JAVA, Remix Solidity etc.
- ↪ 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 algorithms and conversion to MCU code

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 a suitable measurement algorithms for current, voltage, power, frequency parameters.
- ↪ Measurement and analysis of various resources' data and power quality aspects
- ↪ Modelling & implementation of high-speed sampling and buffering techniques for power quality measurement & recording
- ↪ Modelling & implementation of a suitable feeder protection algorithms in distribution network based on current, voltage, power, frequency parameters
- ↪ Blockchain implementation and its enhancement
- ↪ Decentralized energy management with the enhanced blockchain and networking
- ↪ Energy data analysis and prediction, Android App development, testing and validation

Important Instructions:

1. Candidate possessing the requisite qualification and experience should apply; in the attached format along with their updated CV latest by **30th August 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.



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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 along with self-attested copies of certificates, supporting documents and experience should reach to Dr. Chirag Navinchandra Modi (PI) at below given address latest by **30th August 2022** in Hardcopy. 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/SRF position for IMPRINT-2C1, SERB Project**”.
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 and/or interview. No other letter will be sent to the correspondence address.
6. Shortlisted candidates have to present themselves for the written test and/or interview with the 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.

ADDRESS FOR CORRESPONDENCE

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



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Application for the Position of JRF (Junior Research Fellow) and Senior Research Fellow (SRF) 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/SRF

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. Areas of Expertise:

13. 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