

**Department of Electrical Engineering**  
**MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD**  
**Prayagraj – 211004 (India)**

Advertisement No- 17/2022/Project Staff

Dated- 24/02/2022

**Advertisement for the Post of Junior Research Fellow (On Contract)**

Applications are invited from Indian nationals for the post of Junior Research Fellow (on contract) in research project entitled "Study on Cyber-physical Approach for Electric Power Grid".

This is a research project, funded by the SERB, Department of Science and Technology (DST), New Delhi. This is a collaborative project with IIT Kanpur.

The duly filled-in application (soft copy form) in prescribed format along with copies of supporting documents (scanned copy) must reach to email ID: [shubhi@mnnit.ac.in](mailto:shubhi@mnnit.ac.in) [Prof. (Dr.) Shubhi Purwar] with subject of email as: "Application for JRF position in SERB project" on or before 11:59 PM, 18th ~~February~~ <sup>March</sup> 2022. The position is purely temporary and will be governed by the funding agency rules & service conditions of Office of the Dean (Research & Consultancy), MNNIT Allahabad.

**Project Description:**

Operation of the power systems is more and more enabled by phasor measurement units (PMUs) providing a wealth of data and controlled by disparate systems. Advancements in remote signal measurement via PMUs have dramatically increased the availability of transient events for analysis. However, there is a concern from huge amount of PMUs data flow in efficiently extracting the useful information for events characterization. An accurate algorithm on event diagnosis can help to interpret amount of control action required in real-time.

The cyber-integration introduces new challenges. Most of the devices installed in the power systems/network are not designed with sufficient security features against malignant events, particularly from the cyberspace. Tremendous threats arise from the attacker's ability to launch intrigue, remote, simultaneous, and/or coordinated attacks from the cyberspace. The attack schemes can be on generation, transmission, distribution, electricity markets, etc.

**Objectives of the Project:**

The study in the project consists of work packages with specific tasks in the lines of above specified issues. Some part of study will be also carried on real time simulator (RTDS).

**Number of Position** : 1 (One)

**Essential Qualifications** : M.Tech. with specialization in Power System/Power Electronics/Control system having qualified GATE examination in Electrical Engineering.

**Desirable Experience** : One year research experience in related area along with relevant publication if any.

**Additional Requirements** : The following additional requirements will be advantageous:

- Programming skills (Matlab, DigSilent).
- Strong academic skills in publication of research papers in International Journals and/or previous experience in company dedicated to smart grid products development.
- Experience in working on real-time simulators, particularly Opal-RT

**Fellowship** : ₹31,000.00 + HRA per month (as per Institute norms)

**Other Benefits** : Accommodation may be available as per the availability and the Institute norms. The candidate will be encouraged to get enrolled in the PhD programme in the Department of Electrical Engineering, MNNIT Allahabad. The applicant must qualify for admission to this PhD Programme as per existing rules. Candidates having GATE and CPI 6.5 or 60% marks in M. Tech may be eligible to register for Ph.D. program of the Institute. Facility of yearly leave, carryover leave, medical benefits etc. may be available as per applicable rules of the project staff.

**Age Limit** : 28 years on the last date of application (The upper age limit is relaxable up to 5 years in the case of candidates belonging to SC/ST/OBC/PH and women candidates)

**Tenure of Appointment** : Appointment will be made on contract basis for a period of one year initially, which may be extended depending on the performance evaluation on yearly basis till the end of project.

*Shubhi Purwar*

**Note:**

1. The applicant will be responsible for the authenticity of information, other documents and photographs submitted.
2. The Institute reserves the right to accept application at any time, and consider candidates of exceptional credentials without applications. Qualification and experience may be relaxed by the Institute at any point of time for otherwise exceptional candidates.
3. 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.
4. Shortlisted Candidates will be informed by e-mail about the interview date. So, the candidate must provide valid E mail IDs in their applications.  
Shortlisted candidates have to present themselves for the interview on the interview date with updated CV and original and attested photocopies of mark sheets/ certificates in support of their academic qualifications. However, considering the current situation of COVID-19, the Interviews may also be conducted via online mode on MS Teams.
5. 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.
6. No TADA will be paid for appearing in the interview at MNNIT Allahabad

**Name of Principal Investigator** : Dr. Nand Kishor  
**Designation** : Professor  
**Department** : Electrical Engineering

*Shubh: Purwar*



**For office use only**  
Application No.....

**APPLICATION FORM**

Advt.No. \_\_\_\_\_

Dated \_\_\_\_\_

<b>Research Project Entitled-</b> "Study on Cyber-physical Approach for Electric Power Grid" SERB, DST, New Delhi. (File Number: CRG/2019/000951)
<b>Sanction letter &amp; Date:</b> _____
<b>Funding Agency-</b> SERB, Department of Science and Technology, New Delhi
<b>Name of P.I/Co-PI. -</b> Prof. Nand Kishor / Prof. Shubhi Purwar
<b>Name of position-</b> Junior Research Fellow (on contract)
<b>Department/Section-</b> Electrical Engineering

Self Attested  
recent passport  
size Photograph

1.	Name of the Candidate (In Capital letter)					
2	Sex (Male/Female)					
3	Marital Status (Married/Unmarried)					
4	Date of Birth					
5	Age as on last date of application	_____ Years _____ Months _____ Days				
6	Father's/Husband's Name					
7	Present/Contact Address					
8	Permanent Address					
9	Mobile No					
10	E-mail					
11	Nationality					
12	Category	Gen/SC/ST/OBC/PH _____ (enclosed attested copy of certificate) and women				
13	GATE	Valid _____ up to _____ Score/Rank				
14	Educational Qualification					
	<b>Qualification</b>	<b>Subject/Discipline</b>	<b>Board/Institute/Univ.</b>	<b>Year</b>	<b>% of marks</b>	<b>Div.</b>
	10th or equivalent					
	12th or equivalent					
	Diploma, if any					
	BA/B.Sc./B.E./B.Tech					
	M.A./M.Sc.					
	M.Phil./M.E./M.Tech*					

\*Title of M.Tech.

Thesis:.....

*Shubhi Purwar*



15	Details of Experience in chronological order. Enclose a separate sheet duly authenticated under your signature if necessary						
Organization	Position	Salary/Emoluments	Nature of Duties	Nature of appointment	Period of Experience Year      Month Days		
16	Research Publications (Attach list):-			Numbers			
	SCI Journals						
	Non SCI Journals						
	International Conference/Seminar / Symposium Proceeding						
	National Conference/Seminar /Symposium Proceeding						
17	Any information	other					
18	Indicated whether you propose to register for higher degree* at MNNIT, Allahabad. Yes/No (Name of degree)						

**Note:-** \*Those candidates who wish to be admitted as student for higher degree must fulfill at least the minimum eligibility for the respective admission as available on the Institute website.

**DECLARATION**

I hereby declare that all the statements made in this application are true and complete and nothing has been concealed/ distorted. I am aware that, if at any time I am found to have concealed/distorted any material information, my engagement is liable to be summarily terminated without notice.

Place:

Signature of the Applicant

Date:

**Enclosure-Self attested copy of documents**

1. Proof of Date of Birth
2. Mark sheets & certificates of all the examination passed
3. Category Certificate, If applicable
4. GATE score card, If passed
5. Experience certificate, If any

*Shubh: Punwar*