



सूक्ष्म कणिका एवम संचार अभियांत्रिकी विभाग  
मोतीलाल नेहरू राष्ट्रीय प्रौद्योगिकी संस्थान, इलाहाबाद  
प्रयागराज -211004 (भारत)

**ELECTRONICS AND COMMUNICATION ENGINEERING  
DEPARTMENT**  
**Motilal Nehru National Institute of Technology, Allahabad**  
**Prayagraj-211004 (India)**

Advertisement No- 02/2024/ LPDC/ Project Staff

Date:27.09.2024

**Advertisement for the Post of Junior Research Assistant [JRA] (On Contract)**

Applications are invited from Indian nationals for the post of Junior Research Assistant [JRA] (on contract) in research project entitled “**A Simulation and Experimental Study on Screening the Best Materials Combination for Specific Target Detection in Plasmonic Sensors Using Machine Learning Techniques**” sanction letter no. CST/ D-835 dated 12/08/2024 sponsored by **Council of Science and Technology, U.P.** (CST UP). The duly completed application (soft copy in any form) on prescribed format along with scanned copies of supporting documents must reach to email id: [yogendrapra@mnnit.ac.in](mailto:yogendrapra@mnnit.ac.in) (email id of Prof. Yogendra Kumar Prajapati, Electronics and Communication Engineering Department) with the subject of the email as “Application for JRA (on contract)” **on or before 13/10/2024, 05:00 PM (IST)**.

**Description and Objectives of the Project:** The project focuses on developing a plasmonic sensor computational model incorporating various plasmonic materials, 2-D nanomaterials like graphene, antimonene, and metamaterials. The goal is to optimize sensor parameters for detecting a wide range of specific target diseases using machine learning (ML) algorithms. The computational model will be trained on the plasmonic sensor's geometrical structure and performance data to accurately predict the optimal design for the desired sensing capabilities. Based on the predictions from the ML model, the sensor chip will be fabricated.

The application invited from Indian nationals for the post of Junior Research Fellow (on contract) in research project entitled “**A Simulation and Experimental Study on Screening the Best Materials Combination for Specific Target Detection in Plasmonic Sensors Using Machine Learning Techniques**” sanction letter no. **CST/ D-835** dated 12/08/2024 sponsored by CST, UP.

The duly completed application (soft copy in any form) on prescribed format along with scanned copies of supporting documents must reach to email id: [yogendrapra@mnnit.ac.in](mailto:yogendrapra@mnnit.ac.in) (email id of Prof. Yogendra Kumar Prajapati, Electronics and Communication Engineering Department). The position is purely temporary, co-terminus with the project and will be governed by the Project Guidelines of Council of Science & Technology, Uttar Pradesh and rules & regulations of Motilal Nehru National Institute of Technology Allahabad, Prayagraj, Uttar Pradesh.

- Number of Position** : 1 (One)
- Essential Qualifications** : B.E./B.Tech. or equivalent degree in Electronics Engineering/Electronics and Communication Engineering with first division or as per guidelines of UPCST  
**Desirable:** B.E./B.Tech. and M.E./M.Tech. with first division to join the Institute Ph.D. Program.
- Fellowship** : Rs. 25,000.00 per month (Consolidated) for first two years & Rs. 28,000.00 per month for third year.
- Other Benefits** : Accommodation may be available as per the availability and the Institute norms. Candidate selected for the JRA may register for Ph.D. if eligibility conditions as set by institute is met by him/her. Facility of yearly leave, carryover leave, medical benefits etc. may be available as per applicable rules of the project staff
- Age Limit** : 28 years as on 1<sup>st</sup> of April of the year in which the application is made
- 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.

**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.
3. Qualification and experience may be relaxed by the Institute at any point of time for otherwise exceptional candidates. 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.
5. Shortlisted candidates have to present themselves for the interview on the interview date with updated CV, publications if any and original and attested photocopies of mark sheets/ certificates in support of their academic qualifications.
6. 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.
7. No TA/DA will be paid for appearing in the interview.

Name of Principal Investigator: Dr. Yogendra Kumar Prajapati  
Designation : Professor  
Department : Electronics and Communication Engineering



**Department of Electronics & Communication Engineering**  
**MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD**  
 Prayagraj-211004

**APPLICATION FORM**

Advt. No.....

<b>Research Projects Entitled</b>	A Simulation and Experimental Study on Screening the Best Materials Combination for Specific Target Detection in Plasmonic Sensors Using Machine Learning Techniques	<b>Self-Attested recent passport size Photograph</b>
<b>Funding Agency</b>	Council of Science and Technology, U.P.	
<b>Name of P.I.</b>	Prof. Yogendra Kumar Prajapati	
<b>Name of Position</b>	Junior Research Assistant [JRA]	
<b>Department/Section</b>	Electronics and Communication Engineering	

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/State	
12.	Category	Gen/SC/ST/OBC/PH.....(enclosed attested copy of certificate) and women
13.	NET/GATE	A. NET: Yes/No; Roll.No.: ....., Year: ....., Score/Rank..... B. GATE: Yes/No; Roll.No.: ....., Year: ....., Score/Rank.....
14.	Educational Qualification	
	<b>Qualification</b>	<b>Subject/Discipline      Board/Institute/Univ.      Year      % of Marks      Division</b>
	10 <sup>th</sup> or equivalent	
	12 <sup>th</sup> or equivalent	
	Diploma, if any	
	B.E./B.Tech./B.S./B.Pharm	
	M.E./M.Tech*	
	Any other degree (if any)	

\*Title of B.Tech. /M.Tech.....



**Department of Electronics & Communication Engineering**  
**MOTILAL NEHRU NATIONAL INSTITUTE OF TECHNOLOGY ALLAHABAD**  
Prayagraj-211004

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

**Note:** "Those candidates who wish to be admitted as student for higher degree must fulfil 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:

Date

(Signature of the Applicant)

Enclosure- Seif 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. NET/GATE score card, if passed
5. Experience certificate, if any
6. Research publication, if any