



राष्ट्रीय प्रौद्योगिकी संस्थान दिल्ली

NATIONAL INSTITUTE OF TECHNOLOGY DELHI

(शिक्षा मंत्रालय, भारत सरकार के अधीन एक स्वायत्त संस्थान)

(An Autonomous Institute under the aegis of the Ministry of Education (Shiksha Mantralaya), Govt. of India)

Plot No. FA7, Zone P1, GT Karnal Road, Delhi-110036, INDIA

दूरभाष/Tele: +9111-33861000, 1001, 1005 फैक्स/ Fax: +9111-27787503,

वेबसाइट/Website: www.nitdelhi.ac.in

Ref. No. CRG/2020/002966/NITD/R. Basu/09

July 25, 2022

Advertisement for Junior Research Fellow (JRF) Position

DST-SERB Sponsored Project: Core Research Grant (CRG)

Applications are invited from highly motivated and eligible candidates for **1 (one) position of Junior Research Fellow (JRF)** in the following DST-SERB-funded sponsored research project:

Project Title: Investigation of Group IV Semiconductor Alloy ($\text{Ge}/\text{Ge}_{1-x}\text{Sn}_x$)/Graphene-based Detector Devices for Bio-Medical and Defense Applications.

Funding Agency: Science and Engineering Research Board (SERB) - DST, Government of India under Core Research Grant (CRG) Scheme,

File Number: CRG/2020/002966

Name of the Project Investigator (PI): Dr. Rikmantra Basu, Associate Professor, ECE Department, NIT Delhi

Faculty Profile: https://nitdelhi.ac.in/?page_id=13670/?action=profile&id=209

Department/ Institute: Electronics and Communication Engineering Department

National Institute of Technology (NIT) Delhi
Room No. 117, First Floor, Mini Campus Building,
Plot No. FA7, Zone P1, GT Karnal Road, Delhi-110036, INDIA
Contact(s): +911133861173 (O)
Email: rikmantrabasu@nitdelhi.ac.in

Last date of receiving online application: August 10, 2022 (5:00 PM)

Eligibility Criterion:

Essential Qualification:

- M. Tech. or M.E. degree in Electronics and Communication Engineering with first division/class with specialization in photonics, optoelectronics, Nano-Photonics, semiconductor/ solid state devices/ electronics, or in any such related area.
- B. Tech. or B.E. degree in Electronics and Communication Engineering with first division.
- Candidates should have a valid GATE score.

Desirable Experience:

- It is highly desirable that the candidates have research experience in modeling and simulation of semiconductor-based optoelectronic/ photonic devices and have basic knowledge in semiconductor/ solid-state device physics, quantum mechanical modeling of photonic devices, nano-electronics, nano-photonics, etc.
- Knowledge of simulation software, like MATLAB (programming), PSPICE, SILVACO TCAD, and COMSOL Multi-physics, is highly desirable.

Job Profile:

The responsibility of the JRF will be to study electronic and optoelectronic processes in emerging group IV alloy materials, implementation of concepts of plasmonics, to explore the opportunities and challenges and to develop novel electronic and optoelectronic devices made of the alloys, and to study (both analytical and simulation-based) the performance characteristics of those devices.

Duration of Appointment:

Initially, the appointment will be made for one year which can be extended up to the completion of the project, purely based on the performance. The position is co-terminus with the project.

Fellowship:

As per the present terms and conditions of the DST-SERB (CRG) project. NIT Delhi will not provide any hostel facility, hence, HRA will also be provided as per the DST norms.

Application Procedure:

- Candidates possessing the requisite qualification and experience should **apply online via the available Google Form. (Link: <https://forms.gle/bsUhzgG2MbnfcGLJ8>)**
- Candidates have to upload **both the following (a + b) in the Google form:**
 - (a) The **duly filled application form is available in Annexure I at the end of this advertisement.**
 - (b) Photocopy of the following documents (minimum) **as a single merged pdf file (self-attested on every page).**

Table I

S. No.	Minimum Documents (self-attested photocopy) to be Uploaded	Remarks
1.	Class X passing Certificate as birth proof.	In a single merged pdf file format where every page must be self-attested.
2.	Aadhar Card.	
3.	Category certificate (if applicable)	
4.	Class X mark sheet/ pass certificate indicating grades/ marks obtained in every course completed.	
5.	Class XII mark sheet/ pass certificate indicating grades/ marks obtained in every course completed.	
6.	B. Tech/ B.E mark sheet/ Transcript/ pass certificate indicating the name of the courses completed and grades/ marks obtained against every such course.	
7.	M. Tech/ M.E mark sheet/ Transcript/ pass certificate indicating the name of the courses completed and grades/ marks obtained against every such course.	
8.	GATE Score Card.	
9.	Experience Certificate(s) in Teaching/ Industry/Research (if any).	
10.	List of Journal Publications (if any)	
11.	List of Conference Publications (if any)	
12.	List of Book Chapters/ Books/ Monographs etc. publications (if any)	

- **Last date of Online Application: August 10, 2022 (5:00 PM)**

Note:

- In the application form, properly mention your communication address, email address(s), and present contact number(s) for any communication.
- Incomplete application forms and forms received after the due date and time will be summarily rejected.
- No delay related to online application processing or poor internet connectivity etc. will be entertained.

After Application:

- The short-listed candidates, to be called for an interview, will be intimated **only through emails**. Candidates are advised to check their given primary email regularly.

Interview Procedure:

- The short-listed candidates will be encouraged to appear in person (physically) at NIT Delhi for the interview.
- No TA/DA shall be paid to candidates for attending the Interview.

Selection Procedure:

- The decision of the expert panel set up for the interview/ competent authority will be considered final.
- The appointment may be for a time-bound project and the candidate is required to work dedicatedly for the successful completion of the project. The selected candidate has to join immediately.
- Selected candidates may be encouraged to enroll for Ph.D. as per the Ph.D. ordinance of the Institute and depending on the availability of Ph.D. positions at NIT Delhi/ depending on the admission process of Ph.D. at NIT Delhi.
- All the Terms and Conditions for this recruitment will be as per guidelines of the Science and Engineering Research Board, Department of Science and Technology (DST), Government of India.

Dr. Rikmantra Basu

Principal Investigator, DST –SERB Project (CRG Scheme)
Associate Professor, ECE Department
National Institute of Technology Delhi, INDIA.

Copy to:

1. PS to Hon'ble Director (for kind information).
2. Dean (R&C).
3. Head of Department, Electronics and Communication Engineering.
4. Office of Registrar.
5. Computer Centre (for displaying the advertisement on the Institute website).
6. Concerned Person/ portal at DST-SERB.
7. Office Copy/Project File.
8. Institute Notice Boards.



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APPLICATION FORM
 for the post of
Junior Research Fellow

Recent Passport size
 colored photograph duly
 signed by the Candidate

1.	Name in full (block letters)	
2.	Name of Father/ Husband	
3.	Date of Birth	
4.	Marital Status	
5.	Gender (Please specify)	
6.	Address for Correspondence with Pin Code and Contact Number (Mobile Number), if any.	
7.	Email Address	
8.	Category Gen/SC/ST/OBC/PwD?	

9. Professional qualifications (Please fill up only below mentioned qualifications)

Examination passed	Specialization	Year of passing and Duration	Division/ Grade Percentage of Marks	Board/University
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		of the degree		
M. Tech / M.E.				
B. Tech / B. E.				

10. GATE Details

GATE Qualifying Year	Discipline for GATE Examination	Score	Rank	Marks Obtained

11. Details of employment in **reverse** chronological order (Latest First)

S. No	Name of Office/ Institute / Firm	Post held	Exact dates		Total period (in years)	Tentative Remuneration Received	Nature of duties
			From	To			

12. Details of Professional/ Software Knowledge Skills:

13. Title of M. Tech Dissertation/ Thesis:

14. Total No. of Research Journal Publications (SCI index, non-paid) till date
(Write the titles of related research articles, If any):

I hereby declare that all the statements made in this application form are true and correct to the best of my knowledge and belief. I understand that action as deemed fit can be taken against me by the competent authority, if I am declared by it to be guilty of any type of misconduct on account of wrong, false or incomplete information and documents.

Place:

Date:

SIGNATURE OF THE CANDIDATE

Note: Please delete/add rows as per needs. The Application form must be of a maximum of two pages only.