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 Ministry of Education (Shiksha Mantralaya), Govt. of India)

, सेक्टर ए-७, इन्स्टिट्यूशनल एरिया, नरेला, दिल्ली-११००४०, भारत/ Sector A-7, Institutional Area Narela, Delhi-110040, INDIA

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Ref. No. CRG/2020/002966/NITD/R. Basu/03 **July 09, 2021**

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 (Ge/Ge_{1-x} 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, Assistant Professor

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
Sector A-7, Institutional Area, Narela 110040.Delhi. INDIA.
Contact(s): +911133861173 (O)
Email: rikmantrabasu@nitdelhi.ac.in

Duration of the project: 3 Years

Last date of receiving application: July 23, 2021

Eligibility Criterion:

Essential Qualification:

(i) M. Tech. or M.E. degree in Electronics and Communication Engineering with first division/class with specialization in photonics, opto-electronics, Nano-Photonics, semiconductor/ solid state devices/ electronics or in any such related area.

(ii) B. Tech. or B.E. degree in Electronics and Communication Engineering with first division.

(iii) 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 opto-electronic/ photonic devices and have basic knowledge in semiconductor/ solid-state device physics, quantum mechanical modeling of photonic devices, nano-electronics and nano-photonics, etc.
- Knowledge of simulation software, like MATLAB (programming), PSPICE, SILVACO TCAD, 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 opto electronic 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 3 (three) years, 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/gh1FbUQmgMYKE2Cz7**)
- Candidates have to upload the applicable following (*minimum*) photocopy documents **as a single merged pdf file (self-attested in every page)** at the end of the Google Form.

S. No.	Minimum Documents (self-attested photocopy) to be Uploaded	Remarks
1.	Class X passing Certificate as a birth proof.	In a **single merged pdf file format** where every pages must be **self-attested.**
2.	Adhar 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 name of the courses completed and grades/ marks obtained against every such course.	
7.	M. Tech/ M.E mark sheet/ Transcript/ pass certificate indicating 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)	
13.	Recent Passport size photograph	JPEG image format
14.	Scanned signature of the candidate	JPEG image format

- **Last date** of online Application: **July 23, 2021 (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 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 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.
- There may be a possibility of attending an interview online (via Google Meet), however, physical appearance will be preferred most.
- 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 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. Selected candidate has to join immediately.
- Selected candidate may be encouraged to enroll for Ph.D. as per the PhD ordinance of the Institute and depending on availability of PhD positions at NIT Delhi/ depending on admission process of PhD at NIT Delhi.
- All the Terms and Conditions for this recruitment will be as per guidelines of Science and Engineering Research Board, Department of Science and Technology (DST), Government of India.

Dr. Rikmantra Basu

Principal Investigator, DST –SERB Project
Assistant Professor, ECE Department
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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. Scientific Officer (for displaying the advertisement on institute website please).
6. Concerned Person/ portal at DST-SERB.
7. Office Copy/Project File.
8. Institute Notice Boards.