

# भारतीय सूचना प्रौद्योगिकी संस्थान, इलाहाबाद

### INDIAN INSTITUTE OF INFORMATION TECHNOLOGY- ALLAHABAD

(Institute of National Importance and Centre of Excellence in IT, Established by Govt. of India)

Deoghat, Jhalwa, Prayagraj-211015, (U. P.) INDIA

Phone: 0532-2922025, 2922000, Fax: 0532-2430006, 2922144; Web: www.iita.ac.in; Email: contact@iiita.ac.in

Advt. No.: IIITA/ DST/INT/Czech/P-14/2019

Dated - 31 Dec 2020

### Advertisement for the Post of 01 PhD Position

Applications are invited from highly motivated students for 01 PhD position under the research project entitled "Abinitio linear and non-linear ultrafast spectroscopy in two-dimensional nitrogen based binary buckled group V semiconductors" in reference to the sanction letter no. File DST/INT/Czech/P-14/2019 dated 28/09/2020 by Indo-Czech International Cooperation Division. The position is Indo-Czech collaboration based and is fully funded for 03 years with International to & fro travel grants, per diem accommodation grant, VISA, silver class medical insurance, etc. grants, per year for 02 years.

The candidate is expected to work in a very competitive environment both in India and Czech Republic. The span of the project is primarily based on massive parallel computations using first principles methodology (density functional theory, GW+BSE, linear and non-linear spectroscopy) in the area of ab-initio spectroscopy in two-dimensional materials science.

Therefore, the candidate with a prior exposure to shell scripts/python/parallel computations are preferred together with expertise on computational ab-initio packages like Quantum Espresso, VASP, Yambo, QuantumWise, etc. For further details regarding our lab and research work, please visit <a href="https://profile.iiita.ac.in/sitangshu/home.html">https://profile.iiita.ac.in/sitangshu/home.html</a>

The duly completed application on prescribed soft copy format together with supporting documents (single pdf file) should reach to **sitangshu@iiita.ac.in** (PI of the project) **on or before 25 Jan 2021.** The subject of email should be "Application for the post of 01 PhD Position under the research project -Ab-initio linear and non-linear ultrafast spectroscopy in two-dimensional nitrogen based binary buckled group V semiconductors".

The position is purely temporary and will be governed by the Funding agency's rules & service conditions of Research & Development Cell, IIIT Allahabad from time to time.

Name of Position: PhD

Number of Position: 01 (one)
Project Duration: 03 years.

Essential Qualifications: M.Sc. Physics/Applied Physics/Electronics (specialization in Electronics/Solid State

Physics/Materials) or M.E./M.Tech in Electronics with specialization in Microelectronics or equivalent.

### **Desirable Qualifications:**

i. A high GATE/NET/JEST or similar other national level ranking in the relevant field mentioned above.

- ii. Well versed with Unix environment and shell scripts/python/parallel computations. Sound knowledge in quantum mechanics/solid state physics and materials/.
- iii. Candidates with prior exposure to ab-initio computational packages like Quantum Espresso, VASP, QuantumWise, etc. will be preferred.

Fellowship for first two years: 36,960 p.m. (31,000/-per month +16%HRA). Fellowship for third year: 40,600 p.m. (35,000/-per month +16%HRA).

### **Note**

- 1. Most possibly the interview will be on online mode due to the current COVID pandemic situation.
- 2. If selected, the candidate has to join immediately and reside on campus after fulfilling the health and quarantine period conditions laid by the Institute Health Centre.
- 3. The applicant will be responsible for the authenticity of information, other documents and photographs submitted.
- 4. 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.
- 5. 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.
- 6. Shortlisted Candidates will be informed by e-mail about the interview date. So, the candidate must provide valid E-mail IDs in their applications.
- 7. 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.
- 8. 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.
- 9. No TA/DA will be paid for appearing in the interview.

**Age Limit:** 26 years as on the last date of application (The upper age limit is relaxable upto 5 years in the case of candidates belonging to SC/ST/OBC/PH and women candidates).

Name of Principal Investigator: Dr. Sitangshu Bhattacharya Designation: Assistant Professor Department of Electronics and Communication Engineering Indian Institute of Information Technology Allahabad Prayagraj 211015 (UP), India



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Advt.No: IIITA/ DST/INT/Czech/P-14/2019	Dated: 31 Dec 2020
For office use only	
Application No	
APPLICATION FORM	
Research Project Entitled- "Ab-initio linear and non-linear ultrafast spectro	oscopy in two-dimensional nitroger
based binary buckled group V semiconductors"	
File No.: DST/INT/Czech/P-14/2019, dated 28/09/2020	
Funding Agency: Indo-Czech International Cooperation Division, DST, New Delh	11
Name of P.I.: Dr. Sitangshu Bhattacharya	
Name of position: PhD  Department (Section: Department of Electronics and Communication Engineering)	
<b>Department/Section:</b> Department of Electronics and Communication Engineering. Name of the Candidate:	ng
(In Capital letter)	
2. Sex (Male/Female):	
3. Marital Status (Married/Unmarried):	
4. Date of Birth:	
5. Age (as on last date of application):YearsMonths	Davs
6. Father's/Husband's Name:	Buys
7. Present/Contact Address:	
O Damana ant A.J.	
8. Permanent Address:	
9. Mobile No:	
10. E-mail:	
11. Nationality:	

12. Category Gen/SC/ST/OBC/PH:		
13. GATE/NET/JEST Valid up to:	AIR Rank	

14. Educational Qualification (10<sup>th</sup> onward):

Qualification	Subject/Discipline	Board/Institute/Univ.	Year of	% of	Division
			passing	marks	
10th					
12th					
B.Sc./B.E./B.Tech					
/ or equivalent					
M.Sc./M.E./					
M.Tech*					
Any other					

### \*Title of MSc/M.E/M.Tech Thesis:

### Supervisor's name:

- 15. Details of Experience in chronological order. Enclose a separate sheet duly authenticated under your signature if necessary
- 16. Publications details (Attach a separate list, if any, mention all the authors, vol. number, journal name, publication year, page number):
- 17. Any other information: (Attach a separate sheet)

### **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:	

### **Checklist-**

Self-attested copy of documents
Proof of Date of Birth
Mark sheets & certificates of all the examination passed
Category Certificate, if applicable
GATE/NET/JEST score card, if passed
Experience certificate, if any

### Make a single pdf of all your documents before sending.

The duly completed application form in prescribed soft copy format along with the supporting documents (single pdf file) should reach to **sitangshu@iiita.ac.in** (PI of the project) **on or before 25 Jan 2021.** 

The subject of email should be "Application for the post of 01 PhD Position under the research project -Ab-initio linear and non-linear ultrafast spectroscopy in two-dimensional nitrogen based binary buckled group V semiconductors". For further details regarding the research work, please visit <a href="https://profile.iiita.ac.in/sitangshu/home.html">https://profile.iiita.ac.in/sitangshu/home.html</a>