

## School of Natural Sciences

### Department of Physics

#### Ph.D. Admissions: 2018-2019, Spring (2019)

The Department of Physics in the School of Natural Sciences at Shiv Nadar University (SNU) invites applications for admission in the Ph.D. program starting from January, 2019. Our graduate program is designed to serve a wide range of research interests and offers an excellent learning and research environment to motivated and ambitious students. Many of our research projects are interdisciplinary in nature, involving collaborations across multiple departments in the School of Natural Sciences, as well as other schools and research centers of the university.

Diverse research interests, publications and other relevant information of our faculty members can be found at <https://physics.snu.edu.in/people/faculty> and <https://physics.snu.edu.in/>

Department is looking for those candidates who are interested to perform research in the following areas. Candidate should give three preferences (for example: Area 2, Area 5, Area 4 or any other combinations and order of preference) of research areas during the application process from the following options listed below:

- Area 1.** Computational materials science
- Area 2.** Dielectric nanomaterials and thin films (Experimental)
- Area 3.** Soft matter physics (Experimental)
- Area 4.** Statistical properties of complex/chaotic systems using random matrix theory
- Area 5.** Optical and electronic transport properties of 2D materials for energy devices (Experimental)
- Area 6.** Theory of strongly correlated electron systems and novel quantum materials
- Area 7.** Analytic and algebraic problems in quantum mechanics and Entropic gravity

**For any other information or query, applicants may contact:**

Ms. Heena Slathia  
EA to the HOD,  
Department of Physics  
Email: [heena.slathia@snu.edu.in](mailto:heena.slathia@snu.edu.in)  
Telephone: 0120-3819 386

After the online submission, **a copy of the completed form** along with the **online payment receipt** should be sent by **email** to Ms. Henna Slathia, [heena.slathia@snu.edu.in](mailto:heena.slathia@snu.edu.in) with a subject heading “Application for PhD Programme”. Additionally, you are requested to provide one reference letter directly on the above email address to support your candidature. If any of the required documents

(like reference letter, transcript, etc.) could not be uploaded during the on-line application process due to any reason, the same should be sent as attachment in the above email.

**Online submission of application will be closed on Sunday, 16<sup>th</sup> December 2018**

**APPLY NOW**

## **Physics Research Infrastructure**

Physics research Laboratories are equipped with basic research facilities, which include clean room, thermal deposition, chemical vapor deposition, pulsed electron deposition, magnetron sputtering, spin coater, ball-milling, vacuum annealing, high temperature oven, high temperature split tube furnaces, hydraulic press, glove box, microwave furnace, fume hoods, bio-safety cabinets, shaker incubators, thin film XRD, AFM, 325nm PL, UV-visible-IR spectrophotometers, I-V measurement system, polarization loop-tracer, polarization microscope, fluorescence microscope, surface profiler, viscometer, thermal conductivity, contact angle, and many others equipment within the school of Natural science.

Computational facilities at SNS include a high performance IBM cluster (“*Magus*”) consisting of 60 compute nodes (plus two nodes with GPU processors) delivering a theoretical peak performance of ~30 TF. Additionally, there are several stand-alone Linux workstations that are being used for teaching and research purpose. Several software for molecular modeling, molecular dynamics, quantum chemistry, statistic learning, bioinformatics and cheminformatics, are also available.

Our library, housed in a modern 5-storey building, provides online access from anywhere in the campus, to the e-books, electronic journals and databases from APS, AIP, ACS, RSC, AMS, SIAM, Springer, Elsevier, Wiley, Nature, and others.