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# SHIV NADAR UNIVERSITY

## School of Natural Sciences

### Opportunity for Ph.D. Studentship in Chemistry

*Ref: PhD-SNS-2014*

The Department of Chemistry in the School of Natural Sciences at Shiv Nadar University re-invites applications for admission in the Ph.D. program in Chemistry for the session starting in August 2014.

#### **Broad Research Areas Available:**

- Chemical biology
- Cheminformatics
- Chemistry of nanomaterials
- Computational quantum chemistry
- Green chemistry
- Medicinal chemistry
- Organometallic and Environmental Chemistry
- Polymer chemistry
- Structural Chemistry and Crystallography
- Supramolecular Chemistry
- Synthetic Organic Chemistry

More detailed descriptions of research interests of our faculty can be found at [http://www.snu.edu.in/naturalsciences/natural\\_sciences\\_overview.aspx](http://www.snu.edu.in/naturalsciences/natural_sciences_overview.aspx). 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. Three dedicated research centers – Big Data Analytics Center, Center for Informatics, and Institute for Innovations & Inventions with Mathematics & IT – provide additional support for interdisciplinary research.

**Eligibility:** A candidate should have (or expect to have by August 2014) a Masters degree in Chemistry, with a minimum of 60% marks or an equivalent grade point. **Candidates who have qualified for CSIR-UGC NET-JRF are preferred.** Short-listed candidates will be required to demonstrate their knowledge through an on-site written test and interview. Selections will be based on past academic performance, **written examination and/or interviews, which will be held on Monday, 28 July 2014.** Candidates need to clear at least **two** of the three sections (with 40% marks in each) in the test to be considered for interviews.

**Financial Assistance:** All candidates admitted to the Ph.D. program are eligible for teaching/research assistantships/fellowships of **Rs. 35,000 per month** along with tuition fee waivers. In addition, SNU offers **hostel fee waivers** to all Ph.D. students.

**Application Process:** All interested candidates should apply in the prescribed form available on our website and email a copy of their CV to:

**Mr. Himanshu Ashwal** (*EA to the Head*, Department of Chemistry)

Email: [himanshu.ashwal@snu.edu.in](mailto:himanshu.ashwal@snu.edu.in)

Telephone: +91 120 266 3868

### **Test and Interview**

**Walk-in test and interviews will be held at the SNU Campus on Monday, 28 July 2014 starting 9:30 a.m.** Candidates should bring originals of certificates and all supporting documents, together with a non-refundable demand draft of Rs.1,000/- (in favor of “Shiv Nadar University” payable at Delhi), with them in order to be allowed to appear for the written test and interview.

Candidates should make their own arrangements for accommodation and local transportation unless requested in advance. Out-station candidates requiring accommodation and/or local transportation should make advance requests, accompanied by completed electronic application form and CV. Such requests may be approved as per availability, at our sole discretion.

### **About SNU**

Shiv Nadar University (<http://snu.edu.in/>) is a multi-disciplinary research university, established by the Shiv Nadar Foundation in 2011 through an act of the State of Uttar Pradesh, India. It is built on a spacious 256 acres fully-residential campus, near Dadri, U.P., at the outskirts of Delhi. The University is driven by its distinguished faculty in natural sciences, humanities and social sciences, engineering, management & entrepreneurship, communication, education, art and design. The Ph.D. program at SNU is full-time and completely residential.

### **Research Infrastructure**

Laboratories in the School of Natural Sciences (SNS) are equipped with basic research facilities including fume hoods fitted with Schlenk lines, LCMS-qToF, UV-visible spectrophotometers, Infrared spectrophotometers, ball-milling, I-V measurement system, thermal evaporator, glove box, microwave furnace, polarization loop-tracer, bio-safety cabinets (for mammalian, bacterial and plasmodium cultures), CO<sub>2</sub> Incubators, shaker incubators, flow cytometry, inverted microscope, plate reader, cell counter, fluorescent microscope, electroporator, PCR, RT-PCR, *etc.* Advanced analytical instrumentation such as 400 MHz NMR, HPLC, CHN analyzer, DSC, TGA, DLS, rheometer, single crystal and powder XRD, SEM, AFM, Raman spectrometer, photoluminescence, fluorimeter, surface profilometer, MEMS, pulsed electron deposition, magnetron sputtering, vacuum annealing oven, split tube, and cylindrical furnaces are in the process of being acquired.

Computational facilities at SNS include a high performance IBM cluster (“*Magus*”) consisting of 32 compute nodes (plus two nodes with GPU processors) delivering 332.8 Giga flops with each node and a theoretical peak performance of 10.649 TF from over all compute nodes. Additionally, there are several stand-alone Linux workstations that are being used for teaching and research purpose. Several software for bioinformatics and cheminformatics, molecular modeling, molecular dynamics, quantum chemistry, and statistical learning are also available.

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