



NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH BHUBANESWAR

Advt. No: NISER/ACAD/PhD/2018-19 (2)

Notice for Admission to Ph.D Program – 2018-19 (Winter Session)

Applications are invited from Indian citizens for admission to Ph.D program scheduled to commence from 4th January, 2019 in the following schools of NISER, Bhubaneswar:

1. School of Biological Sciences (SBS)
2. School of Chemical Sciences (SCS)
3. School of Physical Sciences (SPS)
4. School of Humanities and Social Sciences (SHSS)
5. School of Computer Sciences (SCPS)

Eligibility

1.

Stream	Minimum Educational Qualifications
Biological Sciences	60% or equivalent GPA in Masters or M.Tech in any branches of Biology, Life Sciences, Pharmaceutical Sciences, Agricultural Sciences, Veterinary Sciences, Computer Sciences, Bioinformatics and Biotechnology. Students with Master's degree in Physics, Chemistry or Mathematics having interest in pursuing a career in Biology are also encouraged to apply.
Chemical Sciences	60% or equivalent GPA in Masters in Chemistry or allied fields. Student with Master's degree in any branches of Basic Sciences or M.Tech in Applied Chemistry or Computer Sciences with interest in pursuing career in Chemistry are also encouraged to apply
Physical Sciences	60% or equivalent GPA in Master's degree cumulatively till the last year/semester examination appeared in M.Sc majoring in Physics or M.E./M.Tech in Applied Physics.
Humanities and Social Sciences #	55% or equivalent GPA in Masters in Social Sciences and allied disciplines
Computer Sciences	60% or equivalent GPA in Masters in Computer Science, Electrical, Electronics Engineering or related fields, or Mathematics.

2. (a) Candidates applying for admission in School of Chemical Sciences, Humanities & Social Sciences and Computer Sciences should have qualified at least one of these national level examinations i.e. CSIR-UGC NET/GATE/JEST/INSPIRE (Doctoral fellowship under AORC Scheme with fellowship) or any other equivalent national level examination, valid for the current year in the relevant area of research.

(b) Candidates applying for admission in School of Biological Sciences should have qualified at least one National Level Exam with fellowship (CSIR-NET, DST INSPIRE, DBT, ICMR or any other equivalent) and must have valid fellowship certificate for the year 2019 at the time of application. Fellowship certificate/award letter must be submitted at the time of application.

(c) Candidates applying for admission in School of Physical Sciences should have qualified at least one National Level Exam i.e CSIR-UGC NET/GATE/JEST or any other equivalent national level examination valid for the current year.

3. The scholarship given by NISER is ₹25,000/- for first two years, which will subsequently be enhanced to ₹28,000/- for remaining three years, subject to the condition that he/she fulfills all the requirements of the Institute that will be stipulated from time to time. Fellowship amount from external sources will be governed as per the rules of the respective funding agencies.

Research Areas

School of Biological Sciences

- **AR lab:** 1. Regulation of Lipid Homeostasis and Membrane Biogenesis: role of a phosphatidate phosphatase (PAH) and 2. Mechanism of Nuclear Remodelling: role of Drp6 and its interacting proteins in the nuclear expansion of Tetrahymena
- **DPA lab:** Molecular Genetics, Epigenetics and Genomics of Ageing Disorders: Neurodegeneration and Cancer
- **HM lab:** Antimicrobial resistance and virulence: The lab focuses on studying abiotic and biotic stress response in gram negative opportunistic bacterial pathogens. Candidates having sound knowledge and experience in microbiology, molecular biology, cell biology techniques and bioinformatics are encouraged. For further details please visit lab homepage at: <http://www.niser.ac.in/users/hm>
- **KCP lab:** Molecular genetic approach to understand light signaling and flowering time control in plants
- **PA lab:** Microbiota and Gut-brain-gut axis: The Aich Lab focuses on the understanding of the role of intestinal microbiota on gut-brain-gut axis. The main objective of the lab is to correlate and establish the mechanism of host physiology in terms of metabolism and immunity as a function of commensal microbiota. Work requires a systems biology approach with expertise in immunology, microbiology, bioinformatics, and mathematical biology. People, with experience and interest in any or many of the areas with a strong desire for Ph.D. research with a predefined question in mind, are preferred
- **PSS lab:** Neuroendocrine regulation, Neural circuitry of energy balance and reproduction
- **PVA lab:** Molecular mechanism of eukaryotic start codon selection fidelity and its effect on differential protein expression pattern and cellular physiology
- **RA lab:** Structure-and-function; mechanistic insights into the functioning of two-component systems and transporters
- **SC lab:** Cellular immunology of T cells and macrophages: implication in infection immunity and cancer Immunity
- **TKC lab:** Structure-function relationship of Dengue Virus replication complex proteins

(AR = Dr Abdur Rahaman, DPA = Dr Debasmita P Alone, HM = Dr Harapriya Mohapatra, KCP = Dr KC Panigrahi, PA = Dr Palok Aich, PSS = Dr PS Singru, PVA = Dr Pankaj V Alone, RA = Dr Rudresh Acharya, SC = Dr Subhasish Chattopadhyay, TKC = Dr TK Chowdary)

School of Humanities and Social Sciences

Areas of research under the disciplines of Economics, Psychology, Sociology (specifically in the areas of a) Healthcare and b) New Media), and English.

Candidates with GPA need to produce the conversion note (in case it is not mentioned in their mark sheet) from their institution towards calculation of percentage.

School of Computer Sciences

Research Areas: Computational Geometry, Cryptography and Cyber Security, Cyber Physical Systems, Graph Algorithms, Machine Learning.

Selection Procedure

- The selection committee of the respective schools will short-list the candidates among those who meet the minimum educational qualifications and satisfy additional criteria which each school may set as deemed necessary.

- The short-listed candidates will be called for an interview, supplemented by a written test, if necessary, for the admission.
- Based on the academic record and the performance of the candidates in the selection process, the selection committee of the school will recommend candidates to the Chairman, Academic Council for admission to the Ph.D. program.
- All candidates called for the Test / Interview will be paid to and fro single, second-sleeper class railway fare by the shortest route from their place of residence to the Institute / venue of the Test and Interview. They have to produce evidence (railway ticket) in support of their claim.

How to Apply

- The application form has to be filled up online at <http://www.niser.ac.in> and candidates should follow stepwise instructions mentioned to complete the application submission process. At the time of application, along with this online form, the candidate should upload soft copy of the supporting documents as per the eligibility criteria.
- Candidates intending to apply for more than one school should fill up online application forms for each school and submit separate forms with appropriate supporting documents.
- Two sealed letters of reference in the prescribed format with signature of the referee on the envelope should be produced by the student at the time of interview. The copy of the reference letter is available online.
- NISER does not demand any application fee from the candidates who apply for Ph.D program.

Important dates:

- Online application will be activated on – **01.10.2018 (Mon)**
- Last date for filling up online application – **02.11.2018 (Fri)**
- List of short-listed candidates will be uploaded on NISER website latest by

<ol style="list-style-type: none"> 1. School of Physical Sciences 2. School of Biological Sciences 3. School of Chemical Sciences 4. School of Humanities & Social Sciences 5. School of Computer Sciences 	}	12.11.2018 (Mon)
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- Tentative dates for test/interview will be as follows:

1. School of Physical Sciences:	15 th & 16 th Dec 2018
2. School of Biological Sciences:	11 th & 12 th Dec 2018
3. School of Chemical Sciences:	10 th & 11 th Dec 2018
4. School of Humanities and Social Sciences:	28 th & 29 th Nov 2018
5. School of Computer Sciences	26 th & 27 th Nov 2018
- Each school will send the call letters to the candidates separately.
- Kindly refer to the website for the announcement of the selected candidates.
- The registration is scheduled to be held on **1st January, 2019** (Tuesday).
- If you have any further query, kindly send an email to cpsbs@niser.ac.in, cpsps@niser.ac.in, cpscsc@niser.ac.in, cpscss@niser.ac.in, cpscpc@niser.ac.in for Biology, Physics, Chemistry, Humanities & Social Sciences and Computer Sciences respectively.
- Applicants are encouraged to visit school web page for information on research activities.

Address for communication and more details

Faculty-In Charge (Academic Affairs),
National Institute of Science Education and Research (NISER),
Po-Bhimpur-Padanpur, Via-Jatni, Dist-Khurda-752050
Phone: 0674-2494013, Fax: 0674-2494004
Email: dean_aa@niser.ac.in

Checklist for application submission

During online submission, you will need to have the following ready with you for uploading;

- JPEG file of your passport size photo.
 - JPEG file of your valid signatures.
 - Birth Certificate/10th pass certificate in support of date of birth.
 - Certificate in support of category (SC/ST), only if applicable.
 - Certificate and mark sheets in support of passing qualifying examination i.e Master's degree.
 - Certificate(s)/document(s) in support of qualifying national level examination(s) viz. CSIR-UGC NET/GATE/GPAT/JEST/INSPIRE (Doctoral fellowship under AORC Scheme) or any other.
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