



NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH BHUBANESWAR

Advt.No:NISER/ACAD/Ph.D/2017-18(1)

Notice for Admission to Ph.D. Programme – 2017 (Summer Session)

Applications are invited from Indian citizens for admission to Ph.D. Programme scheduled to commence from 25th July, 2017 in the following schools of basic sciences at NISER, Bhubaneswar:

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

Eligibility

1. **Age:** Not more than 28 years on 1st April, 2017 (Born on/after 2nd April, 1989).
- 2.

Stream	Minimum Educational Qualifications
Biological Sciences #	60% in M. Tech or Masters 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 and Mathematics having interest in pursuing a career in Biology are also encouraged to apply.
Chemical Sciences	60% in Masters in Chemistry or allied fields. Student with masters in any branches of Natural or M.Tech in Applied chemistry or Computer Sciences with interest in pursuing career in Chemistry
Physical Sciences	60% or equivalent GPA cumulatively till the last year/semester examination appeared in M.Sc majoring in Physics OR M.E./M.Tech in Applied Physics.
Mathematical Sciences ##	60% in Masters in Mathematics or Statistics or Computer Science
Humanities and Social Sciences ###	60% in Masters in Social Sciences and allied disciplines

Research areas in School of Biological Sciences:

- Mechanism and cell cycle regulation of nuclear remodeling
- Structure function of Dynamin Related Protein
- Lipid homeostasis and membrane biogenesis
- Regulation of cell structure and functions by thermosensitive TRP ion channels
- Epigenetic role for natural products as regulators of tumor suppressor genes
- Antimicrobial resistance and bacterial pathogenesis- role of outer membrane proteins and efflux pumps;persister cell formation

- Understanding towards the complex cross-talk between light and hormone signaling in plants that fine-tunes flowering
- Cancer biology and cancer genetics
- Dynamics of gut microbiome and host response
- Defects in translation initiation fidelity and analysis of its effects on cellular proteome by using genome wide polysome profiling
- Neuroendocrine regulation, neural circuitry of energy balance and reproduction
- Structural Biology
- Cytoskeletal dynamics, cancer and infectious diseases
- Respiratory development and degeneration in model organisms
- Environmental biotechnology
- Computational cancer biology

Student intake in these advertised areas will depend on the availability of seats with individual PIs.

School of Humanities and Social Sciences (SHSS) is offering Ph.D programme in areas of research under the disciplines of Economics, Psychology, Sociology and English.

Research Areas for School of Mathematical Sciences – students can prefer at least two areas and at the utmost three areas out of the below mentioned in order of preference.

1. Algebra
2. Analysis
3. Discrete Mathematics
4. Probability
5. Statistics
6. Theoretical Computer Science
7. Topology

For Mathematical Sciences: Candidates who have been called for interview of NBHM PhD Scholarship examination for the year 2015 and 2016 are also eligible to apply. Further, UGC-CSIR NET qualified candidates should have passed the examination on or after 1st June 2015 to be eligible to apply.

3. Candidates should have qualified the CSIR-UGCNET/GATE/GPAT/JEST/INSPIRE (Doctoral fellowship under AORC Scheme)/JGEEBILS or any other equivalent national level examination, **valid for the current year** in the relevant area of research.
4. UGC-CSIR or any other JRF qualified candidates have to avail the fellowship directly from the respective organization. Students selected for Ph.D. program based on GATE/GPAT/JEST or any other such examination, which does not offer fellowship will be eligible for fellowship from NISER, Bhubaneswar, if selected.
5. The scholarship given by NISER is Rs. 25,000/- for first two years, which will subsequently be enhanced to Rs. 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.

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 from 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/phd-online> 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 in favor of eligibility criteria as a single pdf file (maximum upload limit 2MB).
- 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.
- NISER does not demand any entrance fee from the candidates who apply for Ph.D program.

Important dates:

- **Online application will be activated on – 2nd March, 2017 (Thursday)**
- **Last date for filling up online application – 1st April, 2017 (Saturday)**
- List of short-listed candidates will be uploaded on NISER website latest by **20th April, 2017**.
- Tentative dates for test/interview, at Jatni campus will be as follows:
School of Mathematical Sciences: 17-18th May, 2017
School of Biological Sciences: 16-17th May, 2017
School of Chemical Sciences: 22-23rd May, 2017
School of Physical Sciences: 18-19th May, 2017
School of Humanities and Social Sciences: 15-16th May, 2017

- Each school will send the call letters to the candidates separately.
- Kindly refer to the website for the date of announcement of the selected candidates.
- The registration will be done on **25th July, 2017** (Tuesday).
- Accommodation in hostels for the days of interview/test can be provided subject to availability. Desirous candidates should send an email request to chiefwarden@niser.ac.in / vijay@niser.ac.in.
- For any further query, mail to cpsbs@niser.ac.in, cpsps@niser.ac.in, cpscsc@niser.ac.in, cpsms@niser.ac.in, cpsHSS@niser.ac.in for Biology, Physics, Chemistry, Mathematics and Humanities & Social Sciences, respectively.
- **Applicants are encouraged to visit school web page for information on research activities.**

Address for communication and more details:

Dean (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



PhD LETTER of REFERENCE

NOTE TO THE REFEREE:

This form is given to you by an applicant of the Ph.D. programme at NISER, Bhubaneswar. We would appreciate an authentic and frank assessment of the candidate as that would facilitate our evaluation procedure. Your report will be kept confidential.

1. I have known the applicant Mr./Ms. _____ for _____ years.

My knowledge of this student is based on: (*check as many*)

- Having him/her in one or more courses
- Knowing him/her personally
- Supervision of his/her thesis/project
- Inquiry and discussion with my colleagues
- Some other sources

2. Performance in my courses:

Course Title	No. of Students	Grade and Rank	Remarks

3. Overall ranking of the candidate among your students in the last three years:

A = top 5%, B = top 25%, C = below top 25%

4. Please indicate the levels of the candidate's abilities with regard to the following.

A = Outstanding, B = High, C = Medium, D = Low

- | | |
|--|--|
| <input type="checkbox"/> Knowledge of the subject | <input type="checkbox"/> Interest in experiments |
| <input type="checkbox"/> Capacity of hard work | <input type="checkbox"/> Interest in theory |
| <input type="checkbox"/> Capacity for independent thinking | <input type="checkbox"/> Communication skills |
| <input type="checkbox"/> Motivation for research | <input type="checkbox"/> Ability to work in a team |

5. Would you consider the applicant good enough to be your own Ph.D. student? Yes / No

6. Please give your remarks about the applicant (add an extra sheet, if necessary). In addition to your general remarks, please address the following questions: Are the abilities of the candidate better than as indicated by his/her marks/grades? What are, if any, the special strengths/aptitudes of the applicant in your opinion?

7. My recommendation:

- I recommend him/her without any reservations
- I recommend him/her
- I do not recommend him/her

Name of the referee: _____

Designation / Position: _____

Date: __ __ / __ __ / 20 __ __

Full Signature with official seal



Address:

_____ PIN : _____

E-mail : _____ Phone : _____ FAX : _____

Please write "PhD Reference Letter (Summer 2017)" on the envelope, seal the envelope and hand it over to the applicant.