INDIAN ASSOCIATION FOR THE CULTIVATION OF SCIENCE

A Deemed to be University under de novo category

Jadavpur, Kolkata-700032

Advertisement No. **Acad/ PhD/Spring Sem-2023** Date: 18.10.2022

Applications are invited for regular full-time PhD students to the PhD Program in the Spring Semester of 2023 under different Schools, namely Applied and Interdisciplinary Sciences, Biological Sciences, Chemical Sciences, Material Sciences, Mathematical and Computational Sciences and Physical Sciences, of IACS (A deemed to be University). A candidate may apply to maximum two Schools by making appropriate selection in the Application Form.

Eligibility:

1. 55% or equivalent in masters is mandatory for general candidates, while for SC/ST/OBC (non-creamy layer)/Differently-abled and other categories 50% marks is necessary.
2. Minimum eligibility criteria as per UGC rules. Qualification and eligibility requirements for each position in different Schools are given separately (*vide infra*).
3. Selection of the regular full-time students will be done on the basis of their academic record, their performance in the appropriate national level examination, and finally, their performance in the written test and/or interview as decided by the respective Schools.
4. Relaxation of the selection criteria for the candidates belonging to SC/ST/OBC (non-creamy layer)/Differently-abled and other categories will be levied according to the norms of UGC and Government of India.
5. Merely satisfying the eligibility criteria does not guarantee that a candidate will be shortlisted for interview.

Fellowship: As per IACS/CSIR/UGC/INSPIRE rules.

Age limit: Should be below 28 years on the date of application. Age relaxation is applicable as per Government of India rule.

Nationality: The applicant must be an Indian citizen.

Selection Procedure:

1. Applicants will be shortlisted on the basis of merit by the Schools. Only shortlisted candidates will be communicated via email and called for a written test and/or interview (to be decided by the School) for the final selection. IACS holds full right of choosing a candidate and even not selecting any, in case suitable applications are not received.

2. Vacancies given for each School are based on number of positions available in individual research groups in different research areas. Selection depends on the past academic record, performance in examination/interview by the School and also the availability of posts in particular research areas as opted by the shortlisted candidate.

Application Procedure: Applicants may send their application form to the Academic Office, IACS (**phdcell_iacs@iacs.res.in**) along with the filled in excel file, both of which are available at http://iacs.res.in/maincontroller.php?navid=24&subnavid=82&resubnavid=193 by clicking "Application Form for admission to the PhD program" and "Synopsis of Applicant for admission to PhD program" respectively. Both documents should be sent together by email (**phdcell_iacs@iacs.res.in**) to the academic office by**November 18, 2022** with the subject line as "**PhD Program, IACS – Spring Semester 2023**".
Exact date and time of Admission Test/or Interview for each School will be announced on the IACS website.

Last Date of Submission: November 18, 2022

Tentative date of interview: 28 November, 2022 to 09 December, 2022 which is subject to change according to the decision of IACS.

For further information in this regard, please contact Academic Office (Phone: 24734971; Extn: 2215. Email: phdcell_iacs@iacs.res.in).

Application/Examination Fees: Rs. 1200/- (Rs. 600/- for reserved candidates) will have to be transferred electronically to the account of IACS (Name of the Account: Indian Association for the Cultivation of Science University, A/C no: 37739525415, State Bank of India, Jadavpur University Branch, Branch Code: 0093. IFSC: SBIN0000093). The electronic transfer reference number should be mentioned in the application form.

Mode of Payment: Payment can be made through either of the following options:

1) Directly by NEFT bank transfer if an applicant can avail Online Banking facility;

2) By depositing the amount at any SBI Counter having CBS facility.

Click here for Fees Structure

Details of the PhD positions and the qualification and eligibility details for the different Schools are given below.

School of Applied and Interdisciplinary Sciences (SAIS)

Number of vacancies	Broad Research Area **(Subject Code)**	Essential Qualifications
1	Photo sensors/photo detector susing perovskite nanocrystals (SAIS01)	M.Sc.in Physics (Specialization: Solid State Physics)
1	Synthesis and characterization of nanocrystals (SAIS02)	M.Sc.in Chemistry (Specialization: Inorganic Chemistry)
1	Peptide-polymer conjugates towards functional biomaterials (SAIS03)	M. Sc. in Chemistry (Specialization: Organic Chemistry) with CSIR-NET(JRF)or other fellowships
1	Nano fabrication for energy harvesting devices (SAIS04)	M.Sc.in Physics/Chemistry with CSIR-NET(JRF) or other fellowships
1	Design and fabrication of optoelectronic devices(SAIS05)	M.Sc.in Physics with CSIR-NET(JRF)or other fellowships
1+1	Optoelectronic Devices: OLEDS / LASER devices and physics of various photo physical properties (SAIS06)	M.Sc.in Physics / Chemistry with CSIR-NET(JRF) or other fellowships
1	Novel materials design, development and photo physical characterization of TADF materials (SAIS07)	M.Sc.in Chemistry with CSIR-NET(JRF)or other fellowships
1	Physical Properties of Polymers (SAIS08)	M.Sc.in Chemistry with CSIR-NET(JRF)or other fellowships.

School of Biological Sciences (SBS)

Number of vacancies	Broad Research Area (Subject Code)	Essential qualification

1-2	Peptide based soft materials in health care (SBS01)	M.Sc. in Chemistry/Biochemistry Material Science/Applied and interdisciplinary science; The candidate must have own fellowship (CSIR/UGC and others) NET/INSPIRE qualified
1	Bio-Organic Chemistry/Biomedicine (SBS02)	M.Sc. in Chemistry/Biochemistry; The candidate must have own fellowship (CSIR/UGC and others)
1	Nanoscale bioelectronics (SBS03)	M.Sc. in Biophysics, Chemistry; Fellowship: CSIR/ UGC/DST-INSPIRE
1	Cancer/Coagulation Biology (SBS04)	MSc in Biological Sciences (The candidate must have own Fellowship, CSIR/UGC and others)
2	Molecular Biology of DNA damage repair in Cancer and DNA Topoisomerase (SBS05)	MSc in Biochemistry, Microbiology, Zoology /Neurosciences, Molecular Biology etc (The candidate must have own Fellowship)
1-2	Fluorescence microscopy based cell biophysics (SBS06)	MSc in Biology /Physics/Chemistry (The candidate must have own Fellowship, CSIR/UGC and others))

School of Chemical Sciences (SCS)

Number of vacancies	Broad Research Area (Subject Code)	Essential Qualifications
3	Experimental Physical Chemistry/ Spectroscopy (SCS01)	M.Sc. In Chemistry with UGC/CSIR /DST-INSPIRE
1+3+2+1+1	Theoretical and Computational Chemistry (SCS02)	M.Sc. In Chemistry/Physics with UGC/CSIR/DST-INSPIRE
1+1+2	Organic Chemistry and Chemical Biology (SCS03)	M.Sc. In Chemistry with external fellowship (UGC/CSIR-JRF (4))
1+1	Inorganic and Bioinorganic Chemistry (SCS04)	M.Sc. In Chemistry with CSIR/UGC/Inspire
1+2+2+3 2	Supramolecular and Polymer Chemistry (SCS05)	M.Sc. In Chemistry with UGC/CSIR M.Sc. In Chemistry with GATE/NET-LS

School of Material Sciences (SMS)

Number of vacancies	Broad Research Area (Subject Code)	Essential Qualifications
2	Photo/electrochemical H2 generation (SMS01)	M.Sc. in Physics/Chemistry/Materials with CSIR/UGC JRF
1	2D Materials Based CO2 Reduction Reaction (SMS02)	M.Sc. in Physics/Chemistry/Materials with CSIR/UGC JRF
1	Hybrid Asymmetric Supercapicitors (SMS03)	M.Sc. in Physics/Chemistry/Materials with CSIR/UGC JRF
2	Broadband Optoelectronic (photo detectors and nano-generators) Systems (SMS04)	M.Sc. in Physics/Chemistry/Materials with CSIR/UGC JRF
1	Battery materials (SMS05)	M.Sc. in Chemistry/Physics with CSIR/UGC/INSPIRE
1	Nanobiotechnology (SMS06)	M.Sc. in Chemistry with CSIR/UGC JRF
1	Optoelectronic materials and devices (SMS07)	M.Sc. in Chemistry/Physics with CSIR/UGC/INSPIRE
1	Spectroscopic study of nanomaterials for energy harvesting (SMS08)	M.Sc. in Chemistry with CSIR/UGC/INSPIRE
1	Quantum Materials (SMS09)	M.Sc. in Physics with CSIR/UGC/INSPIRE
1	Porous Nano materials for Energy & Environment (SMS10)	M.Sc. in Chemistry (Organic Chemistry Spl.) with CSIR/UGC JRF

School of Mathematical and Computational Sciences (SMCS)

Number of vacancies	Broad Research Area **(Subject Code)**	Essential Qualifications
1	Computational Chemical Science (SMCS01)	M.Sc. in Physical Chemistry with CSIR/UGC JRF

School of Physical Sciences (SPS)

Number of vacancies	Broad Research Area (Subject Code)	Essential Qualifications
01	Experimental Condensed Matter Physics (SPS06)	M.Sc.in Physics with INSPIRE (1)/ UGC-CSIR (2) fellowship
02	Quantum optics, quantum information science and quantum thermodynamics-theory (SPS07)	M.Sc. in physics, NET/Gate/Inspire fellowship
02	Cold atoms, Bose-Einstein condensates and quantum many-body physics-theory (SPS08)	M.Sc. in physics, NET/Gate/Inspire fellowship
01	Photo detection properties of 2D materials and hetero structures (SPS09)	M.Sc. in Physics with CSIR/UGC-NET fellowship.

Coordinator, PhD Program, IACS