Ph.D. ADMISSION

DEPARTMENT OF CHEMISTRY
INDIAN INSTITUTE OF TECHNOLOGY INDORE

(November- *2023 Advertisement*)

Applications are invited from highly motivated applicants for admission to the Ph.D. program in the **Departments of Chemistry** (https://chemistry.iiti.ac.in/), Indian Institute of Technology Indore (**IIT-Indore:** https://www.iiti.ac.in/) for 2023.

Last Date of Online Application for Ph.D.:	**25th October 2023** *(till 5.00 pm)*
Tentative Dates of Interview:	**3rd November 2023**

❖ **Eligibility** (*Minimum Educational Qualifications and Qualifying Examination*)**:**

- **For Indian applicants:** Master's degree in Chemistry or other fields relevant to Chemical Sciences (with first division as defined by the awarding Institute/University) **AND** valid **CSIR-JRF/UGC-JRF** OR valid **INSPIRE Fellowship** *for Ph.D.* OR valid Equivalent **Fellowship** *for Ph.D.* OR valid **GATE qualification**.
- **For International applicants:** Master's degree in Chemistry or other fields relevant to Chemical Sciences (with first division as defined by the awarding Institute/ University) **AND** Valid **TOEFL/IELTS** OR equivalent qualification.

❖ **Categories of Admission:**

- ✓ **FA:** Applicants having valid **CSIR-JRF/UGC-JRF** OR Candidate secured **INSPIRE Fellowship** *for Ph.D.* OR valid equivalent **Fellowship** *for Ph.D.*
- ✓ **TA:** Applicants having valid **GATE** qualification (good score/rank).
- ✓ **CT:** College Teacher.
- ✓ **SW:** Sponsored without Institute scholarship, **DF:** Defense Forces, **IS:** Institute Staff**.**

For more details about admission category and eligibility, kindly refer to the main Ph.D. Advertisement of the Institute available at https://academic.iiti.ac.in/phdadvt.php**.**

Application Procedure: Candidates must apply **ONLINE** through the institute website https://academic.iiti.ac.in:8443/nregistration.jsp. Fee**:** https://academic.iiti.ac.in/phdadvt.php.

Detailed schedule regarding the interview will be intimated to the **shortlisted candidates** via email after the last date of application (**Note: Interviews will be in OFFLINE mode**).

Candidates must arrange recommendation letters from at least two referees and should request the referees to send recommendation letters in the given format (format of recommendation letter attached) to the admission-chem@iiti.ac.in well before appearing for the interview. Mere fulfillment of the essential qualifications does not guarantee admission to the Ph.D. program in the Department of Chemistry. The selection will be based on the overall performance, which will include written test and interview along with academic background, suitability for research in the chosen field/area, research aptitude, communication skills, etc.

Come, Live and Explore Chemistry at Department of Chemistry, IIT Indore!

The Department of Chemistry offers Doctor of Philosophy (PhD) degree in Chemistry, where students require completion of course work and a thesis defense on original research performed under the direct supervision of at least one faculty member from the Department of Chemistry.

Department of Chemistry offers a variety of cutting-edge research areas[#] under broad areas of:

- **Inorganic Chemistry**
- **Organic Chemistry**
- **Physical Chemistry**
- **Theoretical & Computational Chemistry**.

The Department of Chemistry at IIT Indore is very well equipped with research facilities and laboratories, along with a **Sophisticated Instrument Center** (**SIC**, for more details please visit (http://people.iiti.ac.in/~sic/) state-of-art sophisticated instrumentation facilities to assist research in almost all areas of chemistry and interdisciplinary research.

For further information contact: admission-chem@iiti.ac.in
(Chemistry Office Phone: 0731-660-3340/0731-660-3415)

Student's Life@IIT Indore: IIT Indore is a residential campus, where most of our students are staying inside the campus. Institute is committed to provide all the basic infrastructure facilities to support our research students/staff to excel best output. Campus Hostels, several eating outlets, service providers are available to students. For more details please visit: (https://iiti.ac.in/page/campus-facilities and www.iiti.ac.in)

Applicants are strongly advised to visit the profiles of all the [#]faculty members (https://chemistry.iiti.ac.in/people/faculty/) before applying for the Ph.D. program and are also encouraged to contact the interested faculty members to gain more information.

Details of the Faculty & Research at Department of Chemistry, IIT Indore

INORGANIC CHEMISTRY

Prof. Suman Mukhopadhyay
Research area: Metal complexes in therapeutics and drug delivery, nanostructured metallogel, molecular recognition, metalloenzymes, and porous materials.
Group website: https://suman729.wixsite.com/mysite
Email: suman@iiti.ac.in

Dr. Shaikh M. Mobin
Research area: Inorganic complexes, MOF & COF for energy storage, conversion, & generation, Crystal engineering, Applications in catalysis, bioimaging & sensing.
Group website: https://iiti.ac.in/people/~xray/index.html
Email: xray@iiti.ac.in

Prof. Sanjay Kumar Singh
Research area: Catalyst design & synthesis for H_2 production & storage, biomass transformation, organic transformations, CO_2 capture & utilization.
Group website: https://iiti.ac.in/people/~sksingh/
Email: sksingh@iiti.ac.in

Dr. Amrendra Kumar Singh
Research area: Ligand design in metal catalysis, Multidentate N-heterocyclic carbene ligands, Small molecule activation by transition metal complexes, Metal-ligand multiple bonds.
Group website: http://people.iiti.ac.in/~aks/
Email: aks@iiti.ac.in

Dr. Abhinav Raghuvanshi
Research area: Luminescent complexes of late transition metals and applications, Inorganic & organometallic TADF materials and inorganic conducting materials.
Group website: https://rabhinav9.wixsite.com/inorgmatlab
Email: r.abhinav@iiti.ac.in

Dr. Dipak Kumar Roy
Research area: Low-valent s- and p-block compounds and small molecule activation, Multiple bonded main group compounds, Organic-Inorganic hybrid polymers.
Group website: http://people.iiti.ac.in/~dipak.roy/
Email: dipak.roy@iiti.ac.in

ORGANIC CHEMISTRY

Prof. Rajneesh Misra
Research area: Organic pi conjugated molecular systems, Organic Synthesis, organic/inorganic and organometallic materials for photonics & electronics.
Group website:https://rajneeshmisraiiti.wixsite.com/rajneeshmisra
Email: rajneeshmisra@iiti.ac.in

Prof. Apurba K. Das
Research area: Organic synthesis, Bio-organic chemistry, Supramolecular chemistry.
Group website: https://apurbadas.org/
Email: apurba.das@iiti.ac.in

Prof. Sampak Samanta
Research area: Asymmetric synthesis, Metal mediated synthetic transformation, Green chemistry, Total synthesis of biologically active compounds.
Group website: https://www.iiti.ac.in/people/~sampaks/
Email: sampaks@iiti.ac.in

Dr. Chelvam Venkatesh
Research area: Natural products, Heterocycles & carbocycles, Diagnostic applications of targeting ligands for cancers & inflammatory diseases, Drug-delivery, NIR, Medicinal chemistry
Group website: https://iiti.ac.in/people/~cvenkat/
Email: cvenkat@iiti.ac.in

Dr. Selvakumar Sermadurai
Research area: Photo-redox catalysis, Asymmetric synthesis, Synthesis of biologically active natural products, Green chemistry.
Group website: https://sites.google.com/view/selvargp/home
Email: selva@iiti.ac.in

Dr. Umesh A. Kshirsagar
Research area: Photo-redox catalysis & Transition Metal catalysis for Organic Synthesis, C-H Activation, Oxidative coupling, CDC, Total Synthesis of Bioactive molecules.
Group website: https://uakshirsagar.wixsite.com/synchem
Email: uakshirsagar@iiti.ac.in

Dr. Debayan Sarkar
Research area: Visible Light Catalysed Reactions, Electrocatalytic Organic Transformations,Total Synthesis of Natural Products and important biomolecules,Atom economic synthetic transformations Asymmetric Dearomatisation Reactions
Group website: https://dslab.co.in/index.php
Email: sarkard@iiti.ac.in

PHYSICAL CHEMISTRY

Dr. Anjan Chakraborty
Research area: Study of bio-nano interface by spectroscopic and imaging techniques.
Group website: https://anjanchakrabortyii.wixsite.com/anjanciiti
Email: anjanc@iiti.ac.in

Dr. Tushar K. Mukherjee
Research area: Photoluminescence spectroscopy, Fluorescence imaging.
Group website: https://kantitushar2.wixsite.com/tushar
Email: tusharm@iiti.ac.in

Dr. Tridib Kumar Sarma
Research area: Nanostructured materials, Polymer composites, Biomimetic materials chemistry.
Group website: https://tridibsarma.wixsite.com/college-sorority-1
Email: tridib@iiti.ac.in

Dr. Pravarthana Dhanapal
Research Area: All-solid-state batteries, Aqueous batteries, Organic batteries, and electric-controlled magnetism.
Group website: https://sites.google.com/iiti.ac.in/pravarthana-dhanapal/home Email: dpravarthana@iiti.ac.in

THEORETICAL & COMPUTATIONAL CHEMISTRY

Prof. Biswarup Pathak **Research area:** Machine learning, Nanoclusters for Catalysis, Fuel/Solar Cell, Battery, and Molecular electronics. **Group website:** https://iiti.ac.in/people/~biswarup/ Email: biswarup@iiti.ac.in	**Dr. Satya S. Bulusu** **Research area:** Computational chemistry, Structural evolution of nanoclusters and nanoalloys, AI and Machine learning in Chemistry, Algorithms and parallel computing. **Group website:** https://iiti.ac.in/people/~sbulusu/ Email: sbulusu@iiti.ac.in
Dr. Soumen Ghosh **Research area:** Method Development for Linear and Non-Linear Excited-State Properties. Modeling and Discovery of New Generation of Energy Materials. Noncovalent Interactions in Molecular Clusters and Crystals **Group website:** https://sites.google.com/view/soumenchem/home?authuser=0 Email: soumeng@iiti.ac.in	

Faculty at Department of Chemistry, IIT Indore

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