Department of Chemical Engineering
Indian Institute of Technology Indore

Ph.D. Admission Spring 2026
Application Start Date: 08th Oct. 2026
Application Last date: ~~05th Nov. 2026~~ Extended to 10th Nov. 2026

Written test and Interview: 13th Nov. 2026

Advertisement Reference Number: IITI/Acad/PhD Admissions/Adv/ChE/2026-2027/04/01

The Department of Chemical Engineering at IIT Indore invites applications from motivated and research-oriented students for admission to its Ph.D. Program for Autumn semester 2026-27. Our faculty members lead cutting-edge, interdisciplinary research groups across six major thrust areas. Explore each research card below to learn about core research directions and access direct links to faculty laboratory websites. Prospective PhD candidates are highly encouraged to reach out to faculty members to learn about their current focus of research.

Core Research Areas

AI, Machine Learning & Data-driven Chemical Engineering

Applying artificial intelligence, physics-informed neural networks, machine learning algorithms, and data-driven computational tools to optimize chemical processes, predict complex molecular behaviors, and accelerate materials discovery.

Faculty Members & Lab Links:

- **Dr. Abhilasha Maheshwari** — Lab Website
- **Dr. Gaurav Chauhan** — Lab Website
- **Dr. R. Kailasham** — Lab Website
- **Dr. KVS Chaithanya** — Lab Website
- **Dr. Naveen Agrawal** — Lab Website
- **Dr. Rupanjali Prasad** — Lab Website
- **Dr. Ranjeet Kumar** — Lab Website

Energy, Sustainability & Environmental Engineering

Developing next-generation clean energy technologies, carbon capture systems, sustainable waste-to-energy pathways, renewable catalysis, and environmental remediation strategies for a net-zero future.

Faculty Members & Lab Links:

- **Dr. Abhilasha Maheshwari** — Lab Website
- **Dr. Gaurav Chauhan** — Lab Website
- **Dr. Rajan Singh** — Lab Website
- **Dr. Preetika Karnal** — Lab Website
- **Dr. Srashtasrita Das** — Lab Website
- **Dr. Naveen Agrawal** — Lab Website
- **Dr. Rupanjali Prasad** — Lab Website

Soft Matter, Rheology, Complex Fluids & Particulate Engineering

Investigating non-Newtonian fluid dynamics, colloidal suspensions, polymer physics, interface science, granular flows, and active matter through multi-scale experimental rheology and computational modeling.

Faculty Members & Lab Links:

Catalysis and Reaction Engineering

Designing novel heterogeneous catalysts, micro-reactors, photo/electrocatalytic systems, and kinetic models for efficient chemical transformations, clean fuel production, and industrial processing.

Faculty Members & Lab Links:

- **Dr. Rajan Singh** — Lab Website

- **Dr. Gaurav Chauhan** — Lab Website
- **Dr. R. Kailasham** — Lab Website
- **Dr. Preetika Karnal** — Lab Website
- **Dr. Jacob John** — Lab Website
- **Dr. KVS Chaithanya** — Lab Website
- **Dr. Rupanjali Prasad** — Lab Website

- **Dr. Srashtasrita Das** — Lab Website
- **Dr. Naveen Agrawal** — Lab Website

Process Systems Engineering

Focusing on process synthesis, design, control, plant-wide optimization, safety assessment, supply chain management, and techno-economic analysis of complex chemical manufacturing systems.

Faculty Members & Lab Links:

- **Dr. Abhilasha Maheshwari** — Lab Website
- **Dr. Ranjeet Kumar** — Lab Website

Biochemical and Biosystems Engineering

Advancing bioprocess engineering, biomaterials synthesis, drug delivery architectures, biomolecular organization and biophysics, enzyme kinetics, and metabolic engineering for healthcare and bioengineering applications.

Faculty Members & Lab Links:

- **Dr. Gaurav Chauhan** — Lab Website
- **Dr. Jacob John** — Lab Website

A detailed faculty profile can be seen on the department website (https://chemical.iiti.ac.in/)

Application Procedure: (for Indian Students)

- Prospective applicants should apply to: https://phdapply.iiti.ac.in/
- For Category of application, application fees, and to apply online, please refer to: https://www.iiti.ac.in/admissions/phd_info/engineering/important_dates
- In case a candidate wishes to apply to more than one department, then a separate application must be filled out for each department.
- No TA/DA will be provided to the applicants if called for a written test /interview.
- The shortlisted candidates should arrange to send a minimum of two letters of recommendation directly via the phdapply.iiti.ac.in portal or provide them in a sealed envelope before appearing for the interview.
- Mere fulfillment of the essential qualifications does not guarantee admission to the Ph.D. program in the Department of Chemical Engineering. The selection will be based on overall performance, which will include a written exam, an interview, academic background, suitability for research in the chosen field/area, research aptitude, and communication skills, among other factors.
- Shortlisted candidates will have to appear in person for a written exam and personal interview on the IIT Indore campus (13th Nov. 2026). No online interviews will be conducted.

Minimum Educational Qualifications (MEQs) for Teaching Assistantship (TA) category-

Masters' degree (M.Tech./M.E./M.S.(Res.)) in Chemical Engineering, Material Science and Engineering, Mechanical Engineering, Chemical Technology (Polymer, Petroleum, Petrochemical etc.), Engineering Sciences, Energy Science and Engineering, civil engineering, environmental engineering, ceramic Engineering, Metallurgical Engineering, Mineral Processing and Engineering, Biotechnology,

Biomedical Engineering, Rubber/ Oil/Paint/Paper and Pulp/ Textile/ Food Technology, (with first division as defined by the awarding Institute/ University) and **GATE qualification.**

OR

Four-year Bachelors' degree (B.E. / B. Tech). in Chemical Engineering or allied disciplines such as Material Science and Engineering, Mechanical Engineering, Chemical Technology (Polymer, Petroleum, Petrochemical etc.), Chemical Science and Technology, Industrial Chemistry, Engineering Sciences, Energy Science and Engineering, Ceramic Engineering, Metallurgical Engineering, Mineral Processing and Engineering, Biotechnology, Biomedical Engineering, Rubber/ Oil/ Paint/Paper and Pulp/ Textile/ Food Technology (with first division as defined by the awarding Institute/ University) **and a valid GATE score.**

GATE qualification is waived off for IIT B. Tech. graduates having CPI>8.5

Minimum Educational Qualifications (MEQs) for College Teacher (CT) category-

- Permanent Employee of the sponsoring College/Institute/University WITHOUT any scholarship from the Institute.
- The College/Institute/University from which the faculty member is sponsored should be amongst the top 100 NIRF-ranked Colleges or Institutes or Universities in the respective category in the immediate preceding year.
- The applicant should have at least one publication in a SCI-indexed journal, proceedings of a peer-reviewed, ranked international conference/a chapter in a book published by a reputed international or national publisher, or a patent, or have developed state-of-the-art patentable and/ or transferable technology.
- No GATE Qualification required.
- For more details, please refer to https://academic.iiti.ac.in/phdforms/Rules%20and%20Form%20for%20CT%20category.pdf

Minimum Educational Qualifications (MEQs) for Sponsored Part-Time (SWP) category-

For applicants sponsored by a highly reputed R&D organization or Industry.

- Minimum 2 years of work experience at the sponsoring institution.
- No GATE Qualification required.
- For more details, please refer to https://academic.iiti.ac.in/phdforms/5022015Additional-Rules-for-IS+SW-Part-Time-PG+PhD-Programs.pdf

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