

Dated: 26th-08-2025

Advertisement for Admission to PhD Programme at Department of Chemical Engineering, IIT ROPAR (1st Semester AY2025-2026)

Department of Chemical Engineering, IIT Ropar, invites applications for admission to PhD programme in the following categories:

- **Regular PhD** (Institute Funded / Sponsored Project Funded)
- **PMRF- PhD:** Students will get an opportunity to apply for a PMRF Fellowship as per PMRF Guide Lines
- Part-time PhD/ Sponsored Category/ External Registration Program (ERP): Opportunity for working professionals who can balance the professional work and research dream.

For more details related to minimum eligibility qualifications for admissions to the above categories, candidates are advised to visit **Information Brochure of PhD Admissions AY 2025-26 given** on the following link: PhD Categories | Indian Institute of Technology Ropar.

Deadline to submit the application form	Department	Date of interview
8 th September 2025	Chemical Engineering	Between 13 th - 22 nd September Exact date will be informed to shortlisted candidates via email.

Focused Research areas of the Department:

- i. <u>Transport Phenomena and Thermodynamics</u>
 - a) Soft Matter and microfluidics b) Computational Studies: Molecular simulations, CFD, Multiscale Modelling c) Characterization of materials d) Granular Materials e) Complex Fluids, Polymer physics Crystallization g) Active particle, Active gel dynamics h) Colloid and Interfacial Engineering i) Interfacial flows
- ii. Catalysis and Chemical Reaction Engineering
 - a) Heterogeneous Catalysis b) Energy and Environment c) Synthesis of novel materials, nanoparticles, nanofibers etc. d) Polymer synthesis e) Crystallization f) Wastewater

Treatment g) Energy conversion and storage devices h) Nanoscience and Nanotechnology i) Computational Catalysis: Multiscale modelling.

iii. Process Systems Engineering and Data Analytics

a) Process Control and Optimization b) Machine Learning for Process Engineering c) Process Design, Analysis, Integration and Operation d) Fault Detection and Diagnosis e) State Estimation f) Process Modeling and Simulation h) Technoeconomic and Sustainability Analysis

iv. Biochemical and Bioprocess Engineering

a) Biomedical Engineering b) System biology c) Computational Biology d) Active particle, Active gel dynamics e) Wastewater Treatment

For more details related to department research facilities and individual faculty research areas, candidates are advised to visit Chemical Engineering Department website on the following link Chemical Engineering | IIT ROPAR.

Sponsored Projects (under which project seats will be offered):

Sr.no	Project Title	Principal Investigator		
1	Pilot plant demonstration of hydrogen production	Dr. Tarak Mondal		
	from agricultural waste through integrated pyrolysis			
	and catalytic steam reforming process			
2	Laboratory and Pilot Scale Assessment for Recovery	Dr. Kishant Kumar		
	and Purification of Valuable Elements from			
	Lithium/Cobalt/Nickel/Manganese/Iron Systems			
3	Hydrodynamic cavitation aided process	Dr. Sarang Gumfekar &		
	intensification for electrochemical reduction of carbon	Dr. Navin Gopinathan		
	dioxide: Lab and pilot scale demonstration			
4	Selective Hydrogenation of furfural to	Dr. Arghya Banerjee		
	Tetrahydrofurfuryl alcohol (THFA) over supported			
	Pd-Co catalysts: Experimental and Theoretical study			
5	Design and Development of Gold Nanobipyramids	Dr. Santosh Kumar		
	and Dye Based Nano-hybrids for Enhanced Sensing	Meena		
	Applications: Theoretical and Experimental			
	Investigation			

Important information:

- Duly filled application form in the prescribed format appended below, along with the following scanned copies:
 - Scanned copies of the Mark Sheets and Degree certificates (from B.Tech/B.E onwards).
 - Qualifying certificate of the GATE/UGCCat-I/CSIR-JRF/DBT/DST-INSPIRE or any other national fellowship
 - Those who belong to SC/ST/OBC/OBC-NCL/General-EWS category must produce a scanned certificate of the same. Certificates related to OBC-NCL/EWS should be issued in the current financial year as per DOPT format.
 - Any other relevant documents (e.g., experience certificate, etc.).
 - Passport size photograph.

Above documents in a zip format must be emailed to the following email id:

office-ch-1@iitrpr.ac.in

Deadline for submission of the application package: 8th September 2025

- The mode of interview will be in online mode only. Exact schedule of the interview with google meet link will be shared to the shortlisted candidates through email.
- IIT Ropar reserves the right to admit/ not admit for any of the advertised areas and apply appropriate criteria for shortlisting/selection of the candidates.
- The decision of the competent authority in all matters relating to the eligibility of the candidate, written test/interview and admission would be final and binding on all the candidates. In case of any dispute/ambiguity that may occur in the process of admission the decision of the Institute shall be final.
- All the details furnished in the application will be treated as final and no changes shall be entertained. Non submission of valid/required documents and/or incomplete application will lead to summarily rejection.

Application Fee: Women candidates & SC/ST/PwD category candidates: Rs. 100/- All other candidates: Rs. 200/-. The fee is to be paid by SB Collect (Online Payment System). Applications without online payment details will not be considered. Fees payment method is as follows:

- Procedure for payment of application fee through SB collect:
 - 1. Go to State Bank Collect
 - 2. Select SB collect.
 - 3. Tick the terms and conditions and continue.
 - 4. Select state Punjab.
 - 5. Select educational institute IIT Ropar (Type IIT Ropar after giving space in each letter of IIT).
 - 6. Select the option for the payment category.

- 7. Pay the requisite fee.
- 8. One application fee is valid for a single application. The application fee is non-refundable
- 9. For any queries related to the online interview process, send an email to **office-ch-1@iitrpr.ac.in**

INDIAN INSTITUTE OF TECHNOLOGY ROPAR

APPLICATION FORM

1. Personal Details

Full Name (In capital)		
Name of Department applying		
Date of Birth (DD/MM/YY):	Category GEN (SC/ST/OBC/EWS):	Affix a recent passport
Marital Status (Single/Married):	Gender (Male/Female)	size photo
Nationality		
Present Address for Communication	Permanent Address	
Mobile/Phone No.	Email:	

2. Details of School/University/Institute Studied (From Matriculation Onward)

S. No.	Degree	Discipline	University/Institu te	Regular/ Part-time	Year	%Marks /CGPA	Division

3.	Details of External Fellowship (CSIR/UGC-JRF/BET-JRF/INSPIRE/NBHM or any
	other national fellowship etc.)

Qualifying Examination	Branch	Year	Valid Upto	Percentile	Score	All India Rank	duration of fellowship

4. Details of Qualifying Examination (NET/GATE or any other equivalent examination)

Qualifying Examination	Branch	Year	Valid Upto	Percentile	Score	All India Rank

5. Professional Experiences (Teaching/Research/Industrial)

Name of Organization	Designation	Nature of Work	From	То

6.	Research Publication/Patents/Awards/Accomplishments	(if a	anv):

7. Any other Information (use a separate sheet if required):

DECLARATION

I hereby declare that I have carefully read the instructions and particulars supplied to me and that the entries made in this application form are correct to the best of my knowledge and belief. If selected for admission, I promise to abide by the rules and discipline of the Institute. I note that the decision of the Institute is final in regards to the selection. The Institute shall have the right to expel me from the Institute at any time after my admission, provided it is satisfied that I was admitted on false particulars furnished by me or my antecedents prove that my continuance in the Institute is not desirable. I agree that I shall abide by the decision of the Institute, which shall be final.

Place:	Signature of the Applicant
Date	