



भारतीय प्रौद्योगिकी संस्थान मण्डी

Indian Institute of Technology Mandi



भारतीय प्रौद्योगिकी संस्थान रोपड़

Indian Institute of Technology Ropar

# IIT Ropar - IIT Mandi PhD Joint Degree Program Information Brochure

ADMISSIONS 2023 - 2024





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## About IIT Mandi

The Indian Institute of Technology Mandi (IIT Mandi), one of the premier technical institutes in India. IIT Mandi was established in 2009 with the aim of providing world-class education and cutting-edge research in engineering, science, and technology. Since its inception, the institute has strived to achieve excellence in education, research, and innovation.

Located in the scenic town of Mandi in the Himalayan foothills, the institute offers a unique learning experience to its students. With state-of-the-art facilities and world-class faculty members, IIT Mandi provides a conducive environment for research and learning. The institute offers undergraduate, postgraduate, and doctoral programs in various disciplines of engineering, sciences, and humanities.

At IIT Mandi, we believe in fostering an environment of innovation and creativity. Our faculty members are renowned experts in their fields and are committed to providing their students with the best possible education. With our multidisciplinary approach to education, we aim to produce graduates who are well-rounded and equipped to solve real-world problems.

We take pride in our research culture and encourage our students to engage in cutting-edge research in various fields. Our research facilities are equipped with state-of-the-art equipment and resources, providing our students with ample opportunities to explore their interests and pursue their passions.

Institute Webpage: [www.iitmandi.ac.in](http://www.iitmandi.ac.in)

## About IIT Ropar

Indian Institute of Technology Ropar, an educational institution created by an Act of Parliament and having its principal address at The Indian Institute of Technology Ropar, Rupnagar, Punjab, 140001, India (“IIT Ropar”). IIT Ropar is committed to provide state-of-the-art technical education in a variety of fields. The Institute is facilitating transmission of knowledge in keeping with the latest developments in pedagogy. At present, the Institute offers the degree of Bachelor of Technology in 7 Departments and offers the MSc degree in 3 Departments. It also offers the degree of Master of Technology in 7 Departments. The institute also offers doctoral programmes in Engineering, Science, Humanities and Social Sciences.

**Mission:** To foster a transformative learning environment and a culture of excellence enabling creation of knowledge and development of socially responsible, enterprising leaders contributing significantly to national progress and humanity.

Institute Webpage: <https://www.iitrpr.ac.in/>



## About PhD JDP

The Joint Degree Program (JDP) offers PhD students enrolled in both institutions the chance to collaborate on a multidisciplinary research project with faculty members and research teams from IIT Mandi and IIT Ropar, as well as to take advantage of the facilities and professional development opportunities offered by both institutions.

## Important Guidelines for PhD Application

1. Please read the instructions given in the brochure carefully before filling up the applications.
2. **Online** Application form & Information brochure (Including the admission schedule along with the important dates) is available on the institute website at the following link:  
<https://alliance.iitmandi.ac.in/iitrpr/>
3. You are required to submit the application form ONLINE. No Downloadable Forms will be available after filling the form, you are advised to take a print of your application for your records.
4. For each project, candidate should submit a separate application with the application fee.
5. The application fee is as follows:

Category	Amount in ₹
General/EWS/OBC/OBC(NCL)/Transgender/Foreign Nationals	200
Women/SC/ST/PD	100

- a. **Mode of Payment: SBI Collect Portal.**
  - b. Applicant should submit fee on SBI collect portal of the IIT Mandi and submit generated transaction number to the admission application portal Link:  
(<https://www.onlinesbi.sbi/sbicollect/icollecthome.htm> )
  - c. One application fee is valid for the single application. The application fee is **NON-REFUNDABLE**.
6. OBC candidates may note that the limit for annual income is Rs. 8 Lakhs for determining the creamy layer among Other Backward Classes (OBCs) candidates. The OBC (NCL) certificate issued for the financial year 2023-24 by the Competent Authority in the prescribed format must be uploaded in the ONLINE application form.
  7. Economically Weaker Sections (EWS) candidates may note that the limit for annual income is Rs. 8 Lakhs for determining the eligibility for benefit under Economically Weaker Sections (EWS) reservation. The EWS certificate issued by the Competent Authority in the prescribed format must be uploaded in the ONLINE application form and submitted at the time of admission.



8. Seats are reserved for Economically Weaker Sections (EWS)/Other Backward Class Non-Creamy Layer (OBC-NCL)/Schedules Caste (SC)/Scheduled Tribe (ST) and Person with Benchmark Disability (PwD) categories as per Government of India norms.
9. You should check Institute website for results/important announcements.
10. You should check emails sent to your email address provided in your application for all important communications and announcements if any.
11. Merely fulfilling eligibility criteria does 'not entitle a candidate to be called for the written test/interview. Decision of Institute authorities will be final. Admission is based on GATE/Written test/Interview performance in addition to general eligibility criterion, the applicants must also satisfy the eligibility criteria specified for the respective Departments / Centres / Schools / Interdisciplinary Groups.
12. Candidates, if called for written test/interview should show/ bring with them (i) Photo ID Card, (ii) Printed copy of the application submitted online, (iii) Thesis/dissertation/report/publications (iv) copy of certificates and mark-sheets.

## Important Dates for Admission

Starting date for filling Online Application	12 <sup>th</sup> October, 2023
Last date for filling Online Application	4 <sup>th</sup> November, 2023
Declaration of shortlisted candidates list	Will be Published on IIT Mandi and IIT Ropar website
Shortlisted candidates will be informed by email	

## Contact Details

In case of any query related to the Ph.D. Programme admission process you may contact respective school/Centre, the contact details are:

### IIT Mandi

Name of School/Centre	Email ID	Contact No.
Centre Artificial Intelligence and Robotics (CAIR)	<a href="mailto:cairoffice@iitmandi.ac.in">cairoffice@iitmandi.ac.in</a>	----
School of Biosciences & Bioengineering	<a href="mailto:sbboffice@iitmandi.ac.in">sbboffice@iitmandi.ac.in</a>	01905-267061
School of Chemical Sciences	<a href="mailto:scsoffice@iitmandi.ac.in">scsoffice@iitmandi.ac.in</a>	01905-267277
School of Civil & Environmental Engineering	<a href="mailto:scene_admissions@iitmandi.ac.in">scene_admissions@iitmandi.ac.in</a>	01905-267180
School of Computing and Electrical Engineering	<a href="mailto:sceoffice@iitmandi.ac.in">sceoffice@iitmandi.ac.in</a>	01905-267071
School of Humanities & Social Sciences	<a href="mailto:shssoffice@iitmandi.ac.in">shssoffice@iitmandi.ac.in</a>	01905-267719



Indian Knowledge System and Mental Health Application (IKSMHA)	<a href="mailto:iksmha@iitmandi.ac.in">iksmha@iitmandi.ac.in</a>	---
School of Management	<a href="mailto:somoffice@iitmandi.ac.in">somoffice@iitmandi.ac.in</a>	01905-267119
School of Mathematical & Statistical Sciences	<a href="mailto:smssoffice@iitmandi.ac.in">smssoffice@iitmandi.ac.in</a>	01905-267929
School of Mechanical and Materials Engineering	<a href="mailto:smmeadmissions@iitmandi.ac.in">smmeadmissions@iitmandi.ac.in</a>	01905-267138
School of Physical Sciences	<a href="mailto:spsoffice@iitmandi.ac.in">spsoffice@iitmandi.ac.in</a>	01905-267812

## IIT Ropar

Name of School/Centre /Department	Email ID	Contact No.
Academics Section	<a href="mailto:phdadmissions@iitrpr.ac.in">phdadmissions@iitrpr.ac.in</a> <a href="mailto:academicspg@iitrpr.ac.in">academicspg@iitrpr.ac.in</a>	01881-231167, 01881-231168, 01881-231115 (from 9 am to 5 pm)

## Academic Structure

### Program management

A Doctoral Advisory Committee (DC) shall be set up for each JDP Scholar to support and monitor progress of the JDP Scholar throughout the candidature until the thesis has been submitted. The DC shall consist of the following members.

Chair/Head of the School/Department of the Home Institute or his/her nominee	Chairperson
Supervisor from the Home institute	Member
Supervisor from the Host institute	Member
Co-supervisor (s), if any with justification	Member (s)
Subject Expert from the Home Institution	Member
Additional members may be appointed to meet the requirements	Members

### Coursework Requirements

The JDP Scholar shall satisfy the minimum academic coursework requirements of the Home Institution. Additional courses may be taken when recommended by the DC. If a JDP scholar credits a course in one institution, the credits will be automatically transferred to the other institution and will be counted towards the degree requirement.



## Joint Degree Program Structure

- Candidates have a **“Home Institution”** where they begin their studies and spend the majority of time. The expectation is that candidates will spend a minimum of 12 months at the other, **“Host Institution”** the timing and duration of this will depend on the program of research but in general will be in the second or third year of the degree. Travel to and study at the Host Institution will be subject to the usual requirements of the institute.
- As a condition of enrolment on the PhD JDP, candidates are required to:
  - Spend a minimum of one year\* (two semesters) enrolled at each institution.  
\*Candidates registered as part-time PhD or under External Registration program need to spend the minimum residential requirement criteria of both the institute as mentioned in their ordinances and regulations.
  - Undertake a program of progress monitoring and examination that meets the requirements of both institutions.
  - Comply with the rules, regulations, policies, codes and procedures of both institutions.
  - Write and submit a thesis for defense by oral examination at the home Institution.
- Candidates for the PhD JDP will be enrolled in a PhD program in parallel at both institutions. The supervisory team will comprise academics from both institutions who will provide guidance and support throughout the doctoral program. Candidates will benefit from the research community, networking, and collaborations of the IIT Mandi – IIT Ropar. Through enrolment at both institutions, candidates will have access to services and support provided at IIT Mandi and IIT Ropar, including a variety of professional and personal development opportunities for researchers.
- The primary supervisor shall be from the Home Institution. There must be a Joint supervisor from the Host Institution.
- The PhD JDP includes a tailored program of progress monitoring to fulfil the requirements of both institutions. On successful completion of the program requirements, candidates will be awarded a PhD degree jointly by both the Institutions.





## Admissions are currently open under the following research projects

<p><b>1.</b></p>	<p><b>Spintronics in Memory Devices</b></p> <p>This project aims to develop a spintronic device for non-volatile memory applications through a combination of simulation and fabrication efforts. The simulation part involves the development of a quantum transport model to predict the behavior of electrons and their spin in the device, and their interaction with magnetic tunnel junction stacks. On the other hand, the fabrication part involves the creation of various magnetic tunnel junction stacks using thin films of magnetic and non-magnetic materials in a layered structure. These stacks will be analyzed for their performance using various techniques such as electrical measurements, magnetic characterization, and imaging methods. By bringing together these two fronts of simulation and fabrication, this project has the potential to contribute to the development of new and improved non-volatile memory technologies.</p>	
	<p><b>Home Institute:</b> IIT Ropar <b>Supervisor:</b> Abhishek Sharma <b>School/Dept.:</b> Electrical Engineering</p>	<p><b>Host Institute:</b> IIT Mandi <b>Supervisor:</b> Prof. Satinder Sharma <b>School/Dept.:</b> School of computing and electrical engineering</p>
<p><b>2.</b></p>	<p><b>Design of polymer scaffold and polyoxometalate nanocluster as nanocarrier in drug delivery and study the dynamical cellular events by various sophisticated imaging techniques.</b></p> <p>We want to explore polymer embedded quantum dots as nanocarrier and polyoxometalate nanoclusters towards drug delivery systems. Recently, Polyoxometalates (POM) emerge as potential Next-generation metallodrugs in Cancer therapy. They possess a high potential for inhibiting various type of tumors; Although the antitumor activity of POMs is well documented, their mechanisms of action are still poorly understood. More importantly, their nonspecific interactions with biomolecules and toxicity impede their clinical usage. Our group works extensively on the POM and polymer. Prof. CK. Nandi at IIT Mandi is well established in drug delivery related Fluorescence Lifetime Imaging and Super-resolution microscopy of cellular cytoskeleton to understand the dynamical cellular events under living conditions. Collaborative work would be promising to develop POMs as the next-generation anticancer drugs that selectively target cancer cells while sparing healthy cells.</p>	
	<p><b>Home Institute:</b> IIT Ropar <b>Supervisor:</b> Debaprasad Mandal <b>School/Dept.:</b> Chemistry</p>	<p><b>Host Institute:</b> IIT Mandi <b>Supervisor:</b> C. K. Nandi <b>School/Dept.:</b> School of Chemical Sciences</p>
<p><b>3.</b></p>	<p><b>Experimental Investigation on Effect of EGR and Fuel Additive on Knocking and Emissions from Spark-Ignition (SI) Engine</b></p> <p>Spark-ignition (SI) engines are preferred for light duty vehicles. The Knock phenomenon in SI engines restricts the operating compression ratio and engine efficiencies. Furthermore, SI engine emits regulated and unregulated emissions in higher concentration. To meet the fuel standards and emission</p>	



	<p>regulations for SI engine, knocking is one of the major factors. Exhaust gas recirculation (EGR) and fuel additives are effective ways to tackle with the challenge of knock. The project will investigate the thermal, chemical and dilution effect of EGR on knocking. Additionally, effect of fuel additives on regulated and unregulated emissions will be investigated to develop the optimized engine maps of SI engine.</p>	
	<p><b>Home Institute:</b> IIT Ropar <b>Supervisor:</b> Dr. Rakesh Kumar Maurya <b>School/Dept.:</b> Mechanical Engineering</p>	<p><b>Host Institute:</b> IIT Mandi <b>Supervisor:</b> Dr. Atul Dhar <b>School/Dept.:</b> Mechanical Engineering</p>
<p><b>4.</b></p>	<p><b>Design of RSMA based Cooperative Vehicular Network for Deep Ocean Critical Missions</b></p> <p>Proposed project aims to incorporate next generation wireless techniques such as RSMA and co-operation in the deep ocean network nodes like AUVs, submersibles and robotic platforms for enhanced performance. o Prototype is to be tested using software defined radios first, then using AUVs inside a hyperbaric pressure chamber with the help of industry partner.</p>	
	<p><b>Home Institute:</b> IIT Ropar <b>Supervisor:</b> Dr. Sam Darshi <b>School/Dept.:</b> Electrical Engineering</p>	<p><b>Host Institute:</b> IIT Mandi <b>Supervisor:</b> Dr. Satyajit Thakor <b>School/Dept.:</b> School of Computing and Electrical Engineering</p>
<p><b>5.</b></p>	<p><b>Development and Analysis of Reconfigurable Intelligent Surface (RIS) Designed using Frequency Selective Surface (FSS) for 6G and Beyond.</b></p> <p>In the era of the next generation of communication systems based upon 6G-enabled Massive IoT deployments for smart scenarios, there is a need to develop the technique to enhance the coverage to the users in the areas where direct line-of-sight signals are not received (deep faded zones). As a solution, Smart Surfaces are gaining huge attention these days in the wireless communication research area but only from an analysis perspective. The proposed research work is related to the RIS hardware implementation which is not being realized till now. Only preliminary studies have been conducted from a hardware perspective. We propose to investigate novel FSS-based designs to realize RIS surface structure to achieve high-efficiency beam-forming toward intended users for enhancing the quality of communication. The application of RIS can be extended to energy harvesting, phased reflectors and tunable EM wave absorbers. These applications have huge potential towards commercialization especially in the communication and defense sectors.</p>	
	<p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> G. Shrikanth Reddy <b>School/Dept.:</b> School of Computing and Electrical Engineering</p>	<p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Ashwini Sharma <b>School/Dept.:</b> Electrical Engineering Department</p>



6.	<p><b>Effective Hamiltonian for multi-state problems</b></p> <p>Effective Hamiltonian is so far available for single potential energy surface and in general it is the ground electronic state and that too at lower energy (in comparison with bond dissociation energy). In this project we plan to consider the case where at least two potential energy surface is involved in the problem and we plan to construct the effective Hamiltonian and perform, subsequent analysis to understand the mechanism of energy flow from one potential to the other.</p>	
	<p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Aniruddha Chakraborty <b>School/Dept.:</b> School of Chemical Sciences</p>	<p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> T. J. Dhilip Kumar <b>School/Dept.:</b> Chemistry</p>
7.	<p><b>Development of Advanced Intelligent Optimizing Control Schemes using BIG Data Analytics for Large Scale Systems</b></p> <p>This project aims in developing advanced automation techniques for large scale processes using big-data analytic techniques, where major focus is on developing robust model identification techniques, fault detection and advanced multi-variable feedback control approaches for processes subjected to external/unknown disturbances. Here applications of the developed algorithms will be focussed on both conventional and non-conventional energy generation processes.</p>	
	<p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Tushar Jain <b>School/Dept.:</b> School of Computing and Electrical Engineering</p>	<p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Jayaram Valluru <b>School/Dept.:</b> Dept. of Chemical Engg.</p>
8.	<p><b>Fracture and Fatigue Performance Prediction of Carbon-Polymer Composites for Aerospace Application</b></p> <p>Carbon fibre reinforced polymer composites (CFRPC) are widely used in the aerospace industry due to its high specific strength and ability to sustain impact and fatigue loads under thermo-mechanical loading conditions. The objective of this work is to analyse the CFRPCs against the fracture and fatigue performance. A robust and efficient computational model will be developed for the prediction of fracture and fatigue performance of carbon fibre reinforced polymer composites. The proposed model will be capable to predict damage initiation, crack growth and service life prediction of the composites under cyclic thermo-mechanical loading environment.</p> <p><b>Desirable Background:</b> Mechanical/Aerospace Engineering /Machine Design/ CAD/ CAE/ Applied Mechanics/ Computational Mechanics/ related areas.</p>	
	<p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Dr Himanshu Pathak <b>School/Dept.:</b> School of Mechanical and Materials Engineering</p>	<p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Dr Sachin Kumar <b>School/Dept.:</b> Department of Mechanical Engineering</p>



9.	<p><b>Looping of a long chain polymer molecule in solution</b></p> <p>We propose analytical models for looping problem in three dimension and we do simulation to see the validity of those analytical models. Polymer looping problem in solution is important to understanding protein folding problems as looping is one of the primary steps of the folding problem. so far most of the analytical models are in one dimensional.</p> <table border="1" data-bbox="252 488 1375 674"> <tr> <td data-bbox="252 488 821 674"> <p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Aniruddha Chakraborty <b>School/Dept.:</b> School of Chemical Sciences</p> </td> <td data-bbox="821 488 1375 674"> <p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Sudipta Kumar Sinha <b>School/Dept.:</b> Chemistry</p> </td> </tr> </table>	<p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Aniruddha Chakraborty <b>School/Dept.:</b> School of Chemical Sciences</p>	<p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Sudipta Kumar Sinha <b>School/Dept.:</b> Chemistry</p>
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10.	<p><b>Numerical and experimental investigation of Non-Newtonian drop impact dynamics</b></p> <p>Non-Newtonian drops are known to rebound suppression on superhydrophobic surfaces. The non-Newtonian features like normal stress, extensional viscosity and adsorption of polymer molecules on SH surfaces are responsible for slowing down retraction velocity and subsequent inhibition of drop rebound. This phenomenon has implications on reducing the wastage of insecticides on crop leaves which are generally superhydrophobic. One of the investigators (Dr. Devranjan -IIT Ropar) has prior experience in drop impact experiments and another (Dr. Parmod- IIT Mandi) has been engaged in droplet simulations for last few years. Both of our skillsets are complimentary and will be useful in probing this phenomenon by both experiments and numerical simulations.</p> <p><b>Desirable Background:</b> Mechanical/Chemical/Aerospace/Thermal Engineering or related areas</p> <table border="1" data-bbox="252 1272 1375 1458"> <tr> <td data-bbox="252 1272 821 1458"> <p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Dr. Parmod Kumar <b>School/Dept.:</b> School of engineering</p> </td> <td data-bbox="821 1272 1375 1458"> <p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Devranjan Samanta <b>School/Dept.:</b> Mechanical Engineering</p> </td> </tr> </table>	<p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Dr. Parmod Kumar <b>School/Dept.:</b> School of engineering</p>	<p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Devranjan Samanta <b>School/Dept.:</b> Mechanical Engineering</p>
<p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Dr. Parmod Kumar <b>School/Dept.:</b> School of engineering</p>	<p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Devranjan Samanta <b>School/Dept.:</b> Mechanical Engineering</p>		
11.	<p><b>Understanding the Synthesis and Growth of Anisotropic Plasmonic Nanostructures</b></p> <p>This research project offers an exciting opportunity to explore the synthesis and growth of anisotropic plasmonic nanostructures. The primary objective of this project is to achieve shape-controlled synthesis of plasmonic metal nanostructures while gaining a comprehensive understanding of the underlying growth mechanisms through a combined experimental and simulation approach. The selected candidate will be involved in conducting cutting-edge research at the intersection of materials chemistry and nanotechnology. They will work closely with a multidisciplinary team of experts to design and fabricate anisotropic plasmonic nanostructures, investigate their optical and electronic properties, and analyze the growth processes using advanced characterization techniques. Additionally, computational simulations will be employed to complement the experimental findings and provide deeper insights into the growth mechanisms. Applicants with a background in materials science, chemistry, nanotechnology, chemical engineering, or related disciplines are encouraged to apply. The</p>		



	<p>project offers a unique opportunity to contribute to the development of novel plasmonic materials and gain valuable experience in experimental techniques and computational modeling.</p> <p><b>Desirable Background:</b> Chemistry/Materials Science/Nanotechnology/Chemical Engineering or related areas.</p>	
	<p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Dr. Amit Jaiswal <b>School/Dept.:</b> School of Biosciences and Bioengineering</p>	<p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Dr. Santosh Kumar Meena <b>School/Dept.:</b> Chemical Engineering Department</p>
<p>12.</p>	<p><b>Advanced peptide/polymer based nanocomposite hydrogels for wound healing application</b></p> <p>Chronic wounds are a major healthcare challenge owing to their complex healing mechanism and number of impediments to the healing process, like infections. Current topical care strategies, such as surgical debridement, materials for absorption of exudates along with infection and inflammation management, slow the progression of wounds and reduce patient suffering but suffer from low overall cure rates. Therefore, there is still an urgent need for innovative and effective therapeutic approaches to address anomalies in wound repair and avoid long-term repercussions. The proposed work will focus on developing multifunctional peptide/polymer-based nanocomposite scaffolds with bactericidal, anti-inflammatory, and proangiogenic properties.</p>	
	<p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Dr. Garima Agrawal <b>School/Dept.:</b> School of Chemical Sciences</p>	<p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Dr. Yashveer Singh <b>School/Dept.:</b> Department of Chemistry and Department of Biomedical Engineering</p>
<p>13.</p>	<p><b>Zinc Air Battery for Energy Storage Application</b></p> <p>In current energy scenario, Zinc-air battery plays crucial role for the development of energy storage devices beyond lithium. Several strategies have been adopted to develop a single bifunctional electrocatalyst which can efficiently perform both ORR and OER as most of them suffer from the round- trip efficiency issues beyond 65%. Thus, it is important to develop a single bi-functional catalyst which can withstand long-term rechargeable cyclic stability and durability without compromising with the catalytic activity. This project aims to develop such metal oxide-based catalysts which can efficiently work in rechargeable Zinc air battery.</p>	
	<p><b>Home Institute:</b> IIT Mandi <b>Supervisor:</b> Dr Aditi Halder <b>School/Dept.:</b> School of Chemical Sciences</p>	<p><b>Host Institute:</b> IIT Ropar <b>Supervisor:</b> Dr Tharamani <b>School/Dept.:</b> Chemistry</p>



## General Qualifications

In the present call, the students for the PhD JDP will be admitted only in the Regular category. An eligible student in this category works full-time and receives assistantship from the Institute.

The candidate should fulfil the minimum eligibility criteria of the Home institution of the respective projects as mentioned in the below link.

**IIT Mandi :** <https://cloud.iitmandi.ac.in/f/ebee554e7294407399ce/>

**IIT Ropar:** [PhD Admission Brochure 2023-24 22.09.2023.pdf \(iitrpr.ac.in\)](#)

*In addition to general eligibility criterion, the applicants must also satisfy the eligibility criteria specified for the respective Projects/Departments / Centres / Schools / Interdisciplinary Groups. Over and above the general eligibility criteria for admission, candidates need to satisfy additional criteria for financial support / fellowship, as specified under specific admission categories.*

The final selection process to Ph.D. JDP programme for any project will be through written test and/or interview.

## Application and Admissions

The admissions process will be managed by the IIT Mandi - IIT Ropar Joint Admissions Subcommittee (JASC) constituted at the School/Department/Centre level and according to each Institution's admissions procedure. Candidates must meet the admissions requirements of both institutions. The eligibility criteria for enrolling in a joint PhD program will be same as that of a regular PhD program/ERP of the individual institute. The details of the same can be found in the PhD ordinance of the individual institute.

• [IIT Mandi](#)

• [IIT Ropar](#)

All applicants will be expected to apply through an online admissions portal.

## Fees, Scholarships and Funding

- The JDP Scholar shall pay tuition fees only to their Home Institution throughout the duration of the JDP including the duration of study at the Partner Institution as per its fee structure.
- Unless otherwise indicated, candidates who wish to be admitted onto the PhD JDP are entitled to receive fellowship meeting the eligibility criteria. The cost of



fellowship will be borne by the Home Institute even during the candidate's stay in the Host Institute. No tuition fee will be charged by the host institution. However, the student needs to bear the boarding and lodging charges. Scholarships are awarded based on merit, and the value and conditions of any scholarship awarded will be in accordance with the terms and conditions of the awarding institution.

- Regardless of the scholarship awarded, students on the joint PhD program will be personally responsible for the following expenses unless otherwise advised:
  - Incidental fees and charges at either institution
  - Accommodation and living expenses at either institution
  - All personal expenses and non-compulsory additional fees at the host institution
  - All debts incurred by candidates during their stay at either institution
  - Any other debts incurred by candidates during the Joint PhD Program
  - Further the grants in respect of attending conferences will be provided only by the home institute.

### **Fees details:**

The selected candidate needs to pay the fee only to the Home institution and the details about the fee structure can be found below:

- **IIT Mandi** <https://cloud.iitmandi.ac.in/f/248b95f143c8484c9a83/>
- **IIT Ropar** [PhD Admission Brochure 2023-24\\_22.09.2023.pdf \(iitrpr.ac.in\)](#)

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