



IIT Mandi – IIT Ropar Joint PhD Degree 2023

Walk-in Interview

Understanding the Synthesis and Growth of Anisotropic Plasmonic Nanostructures

Applications are invited from Interested and deserving candidates belonging to all categories to appear in the walk-in interview online mode for getting admissions in IIT Mandi – IIT Ropar Joint Ph.D. program for the below mentioned project.

Project Title: Understanding the Synthesis and Growth of Anisotropic Plasmonic Nanostructures	
Home Institute: IIT Mandi	Supervisor: Dr. Amit Jaiswal
Host Institute: IIT Ropar	Supervisor: Dr. Santosh Kumar Meena

Sumamry of the Project: 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 project offers a unique opportunity to contribute to the development of novel plasmonic materials and gain valuable experience in experimental techniques and computational modeling.

Desirable Academic Qualification: MSc/BS/MS in **Chemistry/ Chemical Sciences/ Materials Science/ Nanotechnology/ Chemical Engineering** OR BTech./MTech. In Chemical Engineering/Nanotechnology/Materials Science or Engineering. Experience with molecular simulations and/or scientific programming in python/Fortran/MATLAB etc. will be a plus.



General Eligibility Criteria:

1. Master's or equivalent degree in Engineering/Technology
2. Bachelor's degree in Engineering/Technology*
3. Master's or equivalent degree in Science/Arts/Commerce/Management (or allied subjects)*

***For qualifying degree listed under (2) & (3) candidates must also fulfil ONE of the following additional requirements:**

- a) Qualified GATE / NET including lectureship (Assistant Professorship) or any other equivalent National level examination.
- b) Selected through a National level examination conducted by MoE or its agencies /Institutions such as UGC/ IIT/ IISc./ IISER/ IIIT etc.
- c) Minimum of TWO years of professional experience (acquired after obtaining the qualifying degree and completed before the starting of the semester in which admission is sought)

Exemptions from mandatory requirements of Valid GATE or National Level examination:

- (i) B.Tech/B.E./B.S. (or equivalent) degree from CFTI (Centrally Funded Technical Institute)/ any of the top 100 institutes according to NIRF ranking (overall category) at the time of application/ any Himachal Pradesh Govt. University or institutes, with CGPA/CPI at least 7.5 (on a scale of 10) or equivalent
- (ii) BS-MS/M.Sc/MA/MBA/equivalent from IITs, IISERs, IISc, IIMs or any of the top 100 institutes according to NIRF ranking (overall category) at the time of application with a CGPA/CPI of at least 7.5 (on a scale of 10) or equivalent.
- (iii) NIRF Ranking (within top 100) should be in overall category granted for the year during which admission is sought.

Financial Support:

Students joining the Ph.D. Regular program may be considered for the HTRA Fellowship (subjected to availability of fund) based on the above admission norms, if recommended by the selection committee.

Important Guidelines:

- Candidates should apply online only using the : <https://alliance.iitmandi.ac.in/iitrpr/>
- The application fee is as follows:

Category	Amount in ₹
----------	-------------



General/EWS/OBC/OBC(NCL)/Transgender/Foreign Nationals	200
Women/SC/ST/PwD	100

- o **Mode of Payment: SBI Collect Portal.**
- o Applicant should submit fee on SBI collect portal of the IIT Mandi and submit generated transaction number to the OAS admission application portal Link: <https://www.onlinesbi.sbi/sbicollect/icollecthome.htm>)
- o One application fee is valid for the single application. The application fee is **NON-REFUNDABLE.**
- 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 2022-23 by the Competent Authority in the prescribed format must be uploaded in the ONLINE application form.
- 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.
- 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.
- You should check Institute website for results/important announcements.
- You should check emails sent to your email address provided in your application for all important communications and announcements if any.
- 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.

Important Dates for Application

Starting date for filling Online Application	31 st July 2023
Last date for filling Online Application	4 th August, 2023
Date of Online Interview	6 th August , 2023
Declaration of shortlisted candidates list	Shortlisted candidates will be informed by email

More Details about the program can be found [Here](#)