

Call for PhD Program (Even Semester Feb., 2022)
School of Basic Sciences, IIT Mandi

IIT Mandi seeks application for the **PhD program** in the School of Basic Sciences (**SBS**) in the following areas.

Sl No	Specialization	Research Areas	Eligibility & Minimum Qualification	Remarks
1	<u>Physical Sciences:</u>	Research areas of Physical Sciences: <ol style="list-style-type: none"> 1. Atomic and molecular physics 2. Quantum Optics 3. Computational magnetics/ Electronic Structure using DFT 4. Experimental Condensed Matter Physics 5. Ultrafast optical properties of low dimensional materials 6. Physics of complex systems 	Master's degree in Sciences/ Engineering/ Technology with a good academic records and also qualified GATE or UGC/CSIR NET or DST Inspire or other equivalent national level examination.	In online application select main area i.e., Physical Sciences then select the research areas of Physical Sciences. (Candidate can select more than one area according to their preference)
2	<u>Chemical Sciences:</u>	Research areas of Chemical Sciences: <ol style="list-style-type: none"> 1. Inorganic synthesis, Inorganic materials and metal-complex 2. Organic synthesis, Organic materials, synthetic polymers 3. Inorganic Chemistry 4. Transition metal catalyzed C-H functionalization 5. Heterogenous catalysis, Flow synthesis of nanomaterials 6. Computational Chemistry, Catalysis 7. Green Chemistry and Catalysis 8. Catalysis, electrochemistry, nanomaterials, energy materials 9. Polymers and nanomaterials, Nanotechnology, smart materials, polymer chemistry, Biodegradable Polymers, Biomaterials 	Or B. Tech degree of any IIT with a minimum CGPA of 8.0 on a 10.0-point scale or with a valid GATE Score. Or B. Tech. / B.E. degree of any recognized University in India with a minimum CGPA of 8.0 on a 10.0-point scale or equivalent with valid GATE score.	In online application select main area i.e., Chemical Sciences then select the research areas of Chemical Sciences. (Candidate can select more than one area according to their preference)



3	<p><u>Biological Sciences:</u></p>	<p>Research areas of Biological Sciences:</p> <ol style="list-style-type: none"> 1. *Systems Biology of Microbes in Health and Environment using multi-OMICS approaches (Computational Biology, Genomics, Metagenomics, Transcriptomics) 2. Role of Extracellular Matrix in Cardiovascular Fibrosis, Mass-Spectrometry based Proteomics and Metabolomics, Biomarkers for heart failure 3. Systems Biology of Microbes, Plants using Metabolomics and 13C Fluxomics, Cellular Bioprocessing Technology 4. Host-pathogen immunology 5. Molecular Virology 6. Neuroscience 7. Protein quality control and stress response 		<p>In online application select main area i.e., Biological Sciences then select the research areas of Biological Sciences. (Candidate can select more than one area according to their preference)</p> <p>*For research areas of Biological Sciences advertised in Sl. No.1, there is a desirable criterion of having some relevant experience or training in computational biology and microbiology and allied areas. So, apply accordingly.</p>
4	<p>Mathematical Sciences:</p>	<p>Research areas of Mathematical Sciences:</p> <p>Mathematics:</p> <ol style="list-style-type: none"> 1. Probability/Information Theory 2. Nonlinear Analysis, Mathematical Modelling, Theoretical Partial, Differential Equation 3. Image Processing, Computational Fluid Dynamics 4. Differential Equations, Applied Functional Analysis 5. Machine Learning <p>Statistics:</p> <ol style="list-style-type: none"> 6. **Time Series Analysis, Disease modeling 		<p>In online application select main area i.e., Mathematical Sciences then select the research areas of Mathematical Sciences. (Candidate can select more than one area according to their preference)</p> <p>Area advertised at **Sl. No. 6 under the Mathematical Sciences (Statistics) is for regular full time PhD as Self Sponsored category.</p>

How to Apply

Interested candidates are encouraged to fill the online application form available in the following link:

<http://oas.iitmandi.ac.in/External/Admission/Login.aspx>

Application Fee for Ph.D. Admission:

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

Mode of Payment: SBI Collect Portal.

Applicant should submit fee on SBI collect portal of the IIT Mandi; and submit generated transaction number to the OAS admission application portal. One application fee is valid for the single application. The application fee is non-refundable. Applicant can choose the following steps on SBI Collect Portal to submit the application fee: -

State of Corporate / Institution *: Himachal Pradesh

Type of Corporate / Institution *: Educational Institutions

Educational Institutions Name *: IIT

Select Payment Category *: Application (Admission Fee)

- For any problems regarding filling-up of online application, please contact oassupport@iitmandi.ac.in
- For any other queries regarding Ph.D. program in SBS, please contact the SBS office via following email sbs-admissions@iitmandi.ac.in
- Employed candidates seeking admission to Ph.D. must have to submit a “No Objection Certificate” from their current employer at the time of interview.

Important dates:

Start of online application: **Wednesday, 27th October 2021**

Deadline for online application: **Thursday, 11th November 2021**

- IIT Mandi reserves the right to recruit / not recruit for any of the advertised areas and apply appropriate criteria for shortlisting.

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