

Discipline of Mathematics, IIT Indore

Admission for Ph.D. Programme

<http://math.iiti.ac.in/>



About Discipline of Mathematics, IIT Indore

Indian Institute of Technology Indore (IIT Indore), located in Madhya Pradesh, is an institute of national importance established by the Government of India in 2009. IIT Indore has positioned itself as a vibrant centre for outstanding research. Multidisciplinary research at IIT Indore has been recognized at international level with active participation in several key international projects and several joint collaborations with academic/research institutions in Japan, USA, Germany, France, Singapore and many other countries. The Discipline of Mathematics of IIT Indore started functioning in July 2009, introduced its Ph.D. programme in 2010 and M.Sc. programme in 2015. The discipline is dedicated to research and teaching, and encouraging collaborative research with other Science and Engineering Departments of the Institute. The present faculty members of the discipline are well equipped to conduct research programme in both pure and applied Mathematics. Faculty members undertake research projects sponsored by organizations such as Science and Engineering Research Board (SERB), New Delhi, Department of Science and Technology (DST), New Delhi, Council of Scientific & Industrial Research (CSIR), New Delhi, National Board for Higher Mathematics (NBHM), Mumbai etc.

Research Groups

Analysis:

Faculty	Research Area
Dr. Swadesh Kumar Sahoo	Geometric Function Theory
Dr. V. Antony Vijesh	Numerical Functional Analysis
Dr. Niraj Kumar Shukla	Frame and Wavelet Analysis
Dr. Ashisha Kumar	Harmonic Analysis
Dr. Vijay Kumar Sohani	Harmonic Analysis and PDE
Dr. M. Ashok Kumar	Divergence Functionals
Dr. M. Tanveer	Probabilistic Metric Spaces
Dr. Sanjeev Singh	Special Functions and Geometric Function Theory

Algebra:

Faculty	Research Area
Dr. Sk. Safique Ahmad	Numerical Linear Algebra
Dr. Anand Parkash	Algebra

Rough Set Theory and Modal Logics:

Faculty	Research Area
Dr. Md. Aquil Khan	Rough Set Theory and Modal Logics

As the institute is rapidly growing, other areas of mathematics research will also soon make their presence at IIT Indore.

Differential Equations:

Faculty	Research Area
Dr. Sk. Safique Ahmad	Stability Analysis for Stochastic Differential Equations
Dr. V. Antony Vijesh	Differential Equations
Dr. Vijay Kumar Sohani	Partial Differential Equations
Dr. Sanjeev Singh	Differential Equations

Machine Learning and Optimization:

Faculty	Research Area
Dr. M. Tanveer	Machine Learning, Optimization, Biomedical Signal Processing

Information, Statistics, and Probability:

Faculty	Research Area
Dr. M. Ashok Kumar	Information Measures and Divergences, Rényi Entropy, Large Deviations, Information Geometry, Robust Statistical Inference

Eligibility

1. Minimum first class* Master degree in the relevant science discipline with valid NBHM/UGC-JRF/CSIR-JRF/DST-INSPIRE/GATE or Equivalent Fellowship, OR
2. Minimum first class* M.Tech/M.Phil degree in relevant discipline, OR
3. Minimum first class* Bachelor degree in the relevant Engineering/Technology discipline with a valid GATE score, OR
4. B.Tech from an Indian Institute of Technology (IIT) with a minimum CPI of 8.0.

*The first class is defined as

- a. 60% marks for GEN/OBC (55% for SC/ST) category in aggregate, OR
- b. CPI/CGPA of 6.0 for GEN/OBC (5.5 for SC/ST) category on the scale of 10; with corresponding proportional requirements when the scales are other than on 10 (for example 4.8 for GEN/OBC category (4.4 for SC/ST) on the scale of 8),OR
- c. A first class as specified by the University/Institute awarding the degree.

Application Procedure

1. Candidates must apply **ONLINE** through the website (<http://academic.iiti.ac.in:8080/nregistration.jsp>). This will generate a unique application number for each applicant.
2. **Application Fee:** 100/- Indian Rupees to be paid through State Bank Collect (<https://www.onlinesbi.com/prelogin/icollecthome.htm>) or through a Demand Draft (DD) drawn in favour of "Registrar, IIT Indore" payable at Indore.
3. After Submitting the application online, the same is to be downloaded and the **signed hard-copy along with the State Bank Collect receipt (or Demand Draft), recent photograph, self-attested relevant copies of certificates, (for SW candidates: No Objection Certificate, Experience Certificate, last 3 months salary slip and Employer's PAN card)** must be sent to the DPGC Convener at the below-mentioned Address for Correspondence. The deadline for receiving off-line/hard-copy submission is 7 days after the expiry of on-line submission of the application.
4. The candidate must write his/her name, Discipline of Mathematics and the Application Number on the back side of the Demand Draft.
5. The envelope of the application must clearly mention "Application for Admission to PhD Program in the Discipline of Mathematics".
6. The **short-listed candidates must arrange recommendation letters from at least two referees** with whom the candidate has had academic interaction for at least a year. The candidates should request the referees to send recommendation letters to mathphd@iiti.ac.in.

Why Join MATH @ IITI for PhD

1. Full time PhD students are eligible to receive financial assistance through various avenues.
2. Additional financial assistance to present their research papers in international and national avenues during their PhD program.
3. The discipline has state-of-art computational infrastructure for research.
4. The discipline frequently hosts experts from academic and research institutions to deliver seminars on emerging research topics.
5. Interdisciplinary areas of research.

Recent Highlights in the Discipline of Mathematics

1. GIAN Course on Quasiconformal Mappings and their Applications to be held at IIT Indore during December 11-16, 2017.
2. Short Term Course on Differential Equations: Theory, Computation and Applications to be held at IIT Indore during on December 11-14, 2017.
3. GIAN Course on Generalized Iterative Methods for Nonlinear Differential Equations to be held on December 18-22, 2017, at IIT Indore, India.
4. International Conference on Machine Intelligence and Signal Processing (MISP 2017) to be held at IIT Indore during December 22-24, 2017.
5. GIAN Course on Theory and Application of Wavelets and Framelets to be held at IIT Indore during December 28, 2017 to January 04, 2018.

Address for Correspondence

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Important Information

This is a rolling advertisement. **Applications are invited throughout the year. Interviews will be conducted whenever sufficient applications are received.** Information of short-listed candidates will be announced in our department homepage <http://math.iiti.ac.in/> as well as intimated to the candidates by email.