Deemed to be University (under Distinct Category), Ministry of Education, Govt. of India

Applications are Invited for Admission to Full Time & Part Time Ph.D. Course
Academic Year - 2025-26

Categories of PhD research scholars

- Regular Candidates with Institute Fellowship -Full Time
- Candidates with Individual Fellowship (CSIR–NET JRF/UGC–NET JRF/ICMR/DST-INSPIRE, etc.), - Full Time
- Candidates from Sponsored Research Project-Full Time
- Sponsored Candidates (Industries, and other organizations e.g. academic, research etc.)-Full Time
- Candidates without Institute Fellowship (Self-Sponsored)-Full Time
- Part Time

Eligibility

Ph.D. in Engineering/ Technology

i. An applicant must have a Masters degree in Engineering in the relevant subject with a minimum of 55% marks or an equivalent CGPA.
ii. An applicant must have a Bachelor's degree in Engineering with a minimum of 75% marks or an equivalent CGPA.
iii. A relaxation of 5% of marks shall be allowed for the candidates belonging SC/ST/OBC (non-creamy layer)/Differently Abled, Economically Weaker Section (EWS) as per Central Government rules. An applicant must submit a recent category certificate to avail of this benefit.

Ph.D. in Science and Humanities

i. An applicant must have a Masters degree in the relevant subject with a minimum of 55% marks or an equivalent CGPA.
ii. A relaxation of 5% of marks shall be allowed for the candidates belonging to SC/ST/OBC (non-creamy layer)/Differently Abled, Economically Weaker Section (EWS) as per Central Government rules. An applicant must submit a recent category certificate to avail of this benefit.

Foreign students:

Equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency (Association of Indian Universities) which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of the educational institution.

Fellowship

Doctor of Philosophy (Ph.D.): The PhD institute fellowship will be awarded as per MoE, Govt. of India.

For individual fellowship and sponsored research projects, the fellowship will be as per the prevailing government rules.

Research Specializations

Sl. No.	Department	Qualifications	Area of Research/Specializations
1.	**Foundry and Forge Technology**	Foundry and Forge Technology, Mechanical Engineering, Metallurgical & Materials Engineering, Production and Industrial Engineering, Manufacturing Engineering, Materials Science and Engineering and allied disciplines.	**Foundry:** Ferrous & Non-Ferrous Casting, Solidification, Design, Modelling and Simulation, Smart Foundry. **Forging:** Ferrous & Non-Ferrous Forging, Deformation, Design, Modelling and Simulation, Powder Forging. **Industrial Engineering:** Supply Chain management, Operation Research, Reverse Engineering. **Manufacturing:** Welding, Machining Processes, Additive Manufacturing, MEMS. Heat Treatment and Thermal Energy Optimization, IoT and Application of AI and ML, Manufacturing Process Optimization.
2.	**Mechanical Engineering**	Mechanical Engineering, Production Engineering, Manufacturing Engineering, Industrial Engineering, Materials Science and Engineering, Surface Science & Engineering, and allied disciplines.	Composites, including bio - composites and laminated composite structures - Computational geometry - Conventional and non-conventional machining - Coordinate metrology - Fracture mechanics of adhesive bonded joints - Materials characterization - Reverse engineering - Static and dynamic analysis - Surface metrology - Surface modification techniques - Vibration and control.
3.	**Materials and Metallurgical Engineering**	Materials Engineering, Metallurgical Engineering, Industrial Metallurgy, Nano Technology, Foundry-Forge Technology, Materials Science and Engineering, Welding Technology, Materials Technology, Process Metallurgy, Surface Science & Engineering (with B.Tech. in Metallurgy and Materials Engineering), Mechanical Engineering, Manufacturing Engineering or its equivalent. M.Sc. in Physics/Chemistry with ME/M.Tech.	Physical Metallurgy, Extractive Metallurgy, Corrosion Engineering, Powder Metallurgy, Advanced Materials, Mechanical Metallurgy, Solidification.

4.	**Applied Sciences & Humanities**	i) Physics	i) **Physics:** Experimental condensed matter physics, Solid state physics
		ii) Chemistry	ii) **Chemistry:** Electrochemistry, Polymer, heterogeneous catalyst.
		iii) Mathematics	iii) **Mathematics:** Cryptography, Image Processing, Algebraic graph theory, spectral graph theory, Numerical analysis, Mathematical analysis of population balance equation, integral-differential equations.
5.	**Environmental Engineering**	Environmental Engg., Civil Engg., Chemical Engg., Mechanical Engg., Biotechnology, Metallurgical Engg., Mining Engg., Mechanical Engg., Agricultural Engg., and any other relevant branch of Engineering. Chemistry, Physics, Geology, Environmental Sciences, Biotechnology, and any other relevant branch of sciences.	Air pollution and control, Water & Wastewater treatment, EIA and Solid Waste Management, Utilization of Industrial Waste, Resources recovery from Waste, and Corrosion.
6.	**Electronics and Computer Engineering**	Computer Science & Engineering/ Information Technology/ Electronics & Communication Engg. / Electrical & Electronics Engg. / Electronics & Instrumentation Control Engg. / CAD/ CAM or any other related field of Engineering.	**1. Computer Science & Engineering:** Data Science, Artificial Intelligence, Machine Learning, Information Security and Blockchain Technology, Cloud Computing, Edge Computing and Federated Learning, Natural Language Processing and Information Retrieval, Software Engineering. **2. Electronics & Electrical Engineering: -** Embedded Systems**,** Internet of things**,** Power Systems, Smart Grid & Electrical Vehicle. **3. Electronics & Automation:** Computer Integrated Manufacturing**,** Digital Manufacturing**,** Robotics & Automation**,** Smart Energy Management. **4. Interdisciplinary Research Opportunities:** crossdisciplinarity research that bridges computer engineering with domains like – Mechanical engineering, Biomedical and Electronics Engineering, Cyber-Physical Systems, Sustainable Computing, Brain Computer Interface (BCI), and Healthcare Technologies also.

NOTE: To be eligible for <u>Institute fellowship</u>, a valid GATE score/NET qualification is mandatory for candidates not possessing ME/M.Tech degree. Mathematics should be compulsory at UG level.

Department wise seat for the institute fellowship:

Name of the Department	Seats
Foundry and Forge Technology	3
Mechanical Engineering	3
Materials and Metallurgical Engineering	3
Applied Sciences and Humanities Environmental Engineering	4
Electronics and Computer Engineering	3
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Application Procedure

1. A non-refundable application processing fee of Rs. 500/- (for General/OBC/EWS) and Rs. 250/- (for SC/ST) is to be paid online to **NIAMT IRG FUND ACCOUNT, Account No. 2730101006939**, payable at **Canara Bank, IFSC Code: CNRB0002730, NIFFT Campus, Hatia, Ranchi, Jharkhand – 834003.**

2. How to Apply

a. The application forms and information brochure can be downloaded from the Institute website (**www.niamt.ac.in**).

b. The filled application form along with copy of certificate in support of educational qualification, reserve category and application form fee receipt should be sent **by post/by hand** to **Assistant Registrar (Academic), NIAMT, Hatia, Ranchi, Jharkhand – 834003. The envelope must be superscribed as 'Application for PhD admission 2025'**

c. Application form, all the certificates, and processing fee receipt (self attested) may also be submitted (PDF) through email: admissionsphd@niamt.ac.in, Subject: 'Application for PhD admission 2025'

The results of the written test/interview and selection list will be published on the Institute website only. No individual communication will be sent.

Selection Process and reservation
- Selection is based on written test/interview.
- The candidates must appear for the written test/interview to NIAMT, Ranchi. No TA/DA is admissible.
- The candidates will have to produce all the relevant documents within 60 days from the date of admission, failing which his/her admission will be cancelled.
- The Institute will not be responsible for any postal delays/loss.
- The Institute reserves the right to reject any application without assigning any reason therein.
- Reservation for admission is as per Govt. of India rules.
- Final admission is based on medical fitness.
- For all updates, please visit the Institute website (www.niamt.ac.in).

Important dates

The application form may be downloaded from the Institute website (www.niamt.ac.in) from

(a)	Downloading of PhD application form	: 02-06-2025
(b)	Last date for receipt of completed application form	: 07-07-2025
(c)	Date of Written Test/interview	: 18-07-2025
(d)	Result on website	: 25-07-2025
(e)	Date of Admission	: 01-08-2025
(f)	Last date of Admission	: 08-08-2025

Contact

Email	: academic@niamt.ac.in
Academic Section	: 0651-2912208/ 8105476009/ 9818878551/ 8709275628