NATIONAL INSTITUTE OF TECHNOLOGY MANIPUR
IMPHAL-795004, INDIA

Advertisement for PhD Admission for July, 2024 session

No.NITM.3 (35-Acad)/Reg/PhD/2023-24/698 **Dated: 06./.06../2024**

Applications are invited for admission to PhD Program in the following disciplines for July-2024 Academic Session.

- Department of Civil Engineering
- Department of Computer Science and Engineering
- Department of Electrical Engineering
- Department of Electronics and Communication Engineering
- Department of Mechanical Engineering
- Department of Chemistry
- Department of Physics
- Department of Mathematics

A. CATEGORY

The Institute admits PhD students under the following Categories:

1. Regular
2. Sponsored(Full Time)
3. Self-sponsored(Full Time)
4. Part-time
5. Project Staff*
6. External

* External funded projects

Note:

1. Institute fellowship will be provided only to NET/GATE qualified students
2. For category details and other related documents, please refer to PhD ordinance NIT Manipur -2020

B. IMPORTANTDATES

Opening of portal for submitting online admission form:	***06/06/2024-05/07/2024***
Last date for submitting online PhD Application form:	***05/07/2024***
Uploading List of shortlisted candidates:	***on or before 09/07/2024***
Offline written Test:	***11/07/2024***
Offline interview:	***11/07/2024.***
Uploading List of selected PhD candidates:	***12/07/2024.***
Submission of fees by selected PhD candidates on or before:	***18/07/2024.***

C. Details of the departmental requirements:

Sl. No.	Department	Specialization	Essential Qualifications
1.	CIVIL ENGINEERING	**Water Resources**: Hydrological Modelling &Water Balance Analysis, Climate Change Hydrodynamics, Geospatial Applications in Hydrology & Water Resources, Flood Modelling & Forecasting, Fluvial Hydraulics/Sediment Transport, Fluid flow modeling using Computational Fluid Dynamics (CFD) techniques **GIS & Remote Sensing:** Geospatial Applications, Human Security and Geospatial Intelligence, 3D GIS, Geohazards, UAV &Mobile Mapping. **Environmental Engineering & Management.** Removal of recalcitrant compounds from waste water, Removal of heavy metals from waste water, Drinking Water treatment, Solid Waste Management, Optimization on design of Sewage treatment plant, Optimization on design of Effluent treatment plant, Biological Process for secondary treatment Units, Environmental Impact Assessment, life cycle assessment, climate change adaptation, hazardous waste management, and sustainability engineering. **Structural Engineering:** Earthquake Resistant Design of Structures, Performance based Design, Seismic Vulnerability Assessment of Structures, Construction Materials, Steel Structures, Prestressed Concrete, Bridges, Finite	Master Degree in Engineering /Technology (or equivalent degree) with a minimum of **6.5** CPI/CGPA or a minimum of **60%** marks from a recognized University/Institute; *GATE/NET qualified candidates preferred.* **OR** **M.Sc. / M.S.** in the specified areas (GIS & Remote Sensing, Geo Informatics, Earth Science / Geology, Natural Resources, Environmental Science, Computer Science, Electronics) with a minimum **6.5** CPI/CGPA or minimum **60%** marks from a recognized University/Institute; ***GATE/NET qualified candidates preferred.*** **OR** Bachelor Degree in Engineering / Technology with an excellent academic record, with a minimum **7.5** CPI/CGPA or **70%** marks from a recognized University / Institute with a ***valid GATE / NET*** *score.*

		Element Methods, Numerical methods in Structural Engineering, Computer Aided Design approaches.	
2.	Computer Science & Engineering	Elliptic curve cryptography, speech processing, Information security , artificial intelligence and data mining, , Medical Image Processing , Forgery Detection, Information Security, Machine Learning,	Master Degree in Engineering / Technology or equivalent in IT/CSE or in relevant subjects with a minimum 6.5 CPI/CGPA or 60% marks from a recognized University/Institute. **OR** Bachelor Degree in Engineering/Technology with an excellent academic record, with a minimum **7.5** CPI / CGPA or **70%** marks from a recognized University/Institute and a **valid GATE score.**
3.	Electrical Engineering	Propulsion Drive System for Electric Vehicles using Wide Band gap Semiconductor Devices (i.e., GaN & SiC), Battery Charging System, Wireless Power Transfer Systems, Dynamic Wireless Charging, High-Efficiency Power Converters, Soft Switching, Multi-port Converters, Single-Active Bridge (SAB), and Dual Active Bridge (DAB) Converters, Design, development and testing of power electronics converter for grid integrated renewable energy systems, Grid integration of photovoltaic systems, Power quality improvement, Grid integration of PV with EV charging station, Renewable Energy Planning, Soft computing, Cyber security & Resilience, Power system protection, power system optimization.	Master Degree in Engineering / Technology or equivalent in relevant subjects with a minimum **6.5** CPI/CGPA or **60%** marks from a recognized University / Institute. **OR** Bachelor Degree in Engineering / Technology with an excellent academic record, with a minimum **7.5** CPI/CGPA or **70%** marks from a recognized University / Institute and a **valid GATE score.**

4.	Electronics and Communication Engineering	Wireless Communication , Signal Processing, VLSI Design, Analog Circuit Design, Microwave, Communication system and signal processing, Nanotechnology, Internet of Things, etc	Master Degree in Engineering / Technology or M.Sc in relevant subjects with a minimum **6.5** CPI/CGPA or **60%** marks. **OR** Bachelor Degree in Engineering / Technology with an excellent academic record, with a minimum **7.5** CPI/CGPA or **70%** marks from a recognized University/Institute and a **valid GATE/NET score.**
5.	Mechanical Engineering	Machine Design, Vibration and Acoustics, Rotor Dynamics, Faults identification in Rotor Systems (Unbalance, Misalignment, Crack, etc.), Signal Processing, and Applications of Active Magnetic Bearings, Foil Bearings, Advanced Machining Processes, Electric Discharge Machining, Powder-Mixed Electric Discharge Machining, Near Dry Electric Discharge Machining, Development of metal matrix composites, optimization the processes parameters, Natural Fiber based Polymer Composites Development, various mechanical testing's to study their final properties. 3D printing with Biomedical Applications, Biomaterials, Biomedical devices and implant, Prosthetic, dental and orthotic devices, Computational Biomedical Engineering. Design of Bio-enabled structures, High Performance Computational Modelling of Engineered Systems, Multi-disciplinary Design Optimization, Cyber security in design	Master Degree in Engineering / Technology or equivalent in relevant subjects with a minimum 6.5 CPI/CGPA or 60% marks. **OR** Bachelor Degree in Engineering/Technology with an excellent academic record, with a minimum 7.5 CPI/CGPA or 70% marks from a recognized University/Institute and a **valid GATE score**.

		and manufacturing, Additive manufacturing of complex and composite materials, Anti-reverse engineering technologies, Artificial Intelligence Application in Manufacturing, Fabrication, Characterization and Machining of Composites, Micro manufacturing, Nano-materials, Application of Optimization techniques, Heat transfer, CFD, Turbo machines, Turbulent flow, Fluid Flow, Film cooling, etc.	
6.	Chemistry	Organic Chemistry & Catalysis, Material Chemistry, Nano material	Master Degree in Science in relevant subjects with a minimum 6.5 CPI/CGPA or 60% marks from a recognized University / Institute. ***GATE/NET qualified candidates preferred.***
7.	Physics	Nano-technology and Nano-materials, Magnetic Materials, Semiconductor Materials, Electro ceramics materials, Nano-particles, Soft Matter Physics, Nano-composites, Nano material for water purification	Master Degree in Science in relevant subjects with a minimum 6.5 CPI / CGPA or 60% of marks from a recognized University / Institute. ***GATE / NET*** *qualified candidates preferred.*
8.	Mathematics	Mechanics and Relativistic Mechanics, Numerical Analysis, Algebraic topology.	Master Degree in relevant subjects with a minimum 6.5 CPI / CGPA or 60% of marks from a recognized University / Institute. ***GATE/NET*** *qualified candidates preferred.*

D. Important Instructions for the Applicant

1. Relaxation in % of marks/CPI/CGPA of minimum qualification: In the qualifying degree for the admission to Ph.D. program, the minimum CPI/ CGPA/ marks percentage shall be relaxed by 0.5 CPI/GCPA or 5 percent in case of candidates belonging to the SC/ ST/ OBC(NCL)/PWD categories.
2. Reservation for SC/ST/OBC (NCL)/EWS/PH is applicable as per Govt. of India rules.
3. Valid category certificate for OBC (Non-Creamy Layer)/EWS/SC/SC.
4. Sponsored candidates are required to submit their NOC while filling the online application form.
5. Application fee (Rs.500 for Gen / OBC, OBC (NCL) and Rs.250 for (SC / ST / EWS / PWD) will be accepted through digital/online mode only through **(Bank of Baroda, A/C holder's Name: Director NIT Manipur, A/C No. 10160100021096, IFSC: BARB0NITMAN, Type of A/C : Savings, Branch : NIT Manipur Campus)** The details of fee payment need to be filled in the online form.
6. The name of the provisionally short listed candidates eligible for the written test and / or Interview shall only be displayed on the Institute website.
7. Written test and interview will be conducted for non-GATE and non-NET candidates through offline mode. Only interview will be conducted for GATE and NET qualified candidates through offline mode.
8. Candidates are advised to visit the Institute website www.nitmanipur.ac.in for regular updates.
9. No separate acknowledgment or call letter will be sent by the institute for appearing the Written Test at the Institute in physical mode.
10. As no separate Admit Card is issued for the Written Test, the candidates are informed to bring any standard Photo I-Card (in Original) with a photocopy thereof, such as Aadhaar Card, PAN Card, EPIC card , Driving License, I-card issued by their Employer, or any Govt./ Public Sector Organization etc.
11. Candidates reporting without any standard I-Card (in original) as stated above shall not be allowed to appear Written Test / Selection / Interview.
12. Candidates must report in the Institute at least 30 minutes before start of Written Test else they will not be allowed to appear the written Test.
13. Extension of time for admission reporting shall not be allowed. If a candidate fails to report for admission by the due date and time, his/ her application will not be considered.
14. Candidates at the time of admission are required to sign a bond stating that in case they

fail to complete the PhD successfully, they will refund 50% of fellowship amount received from Institute.

15. The Institute reserves the right to cancel the candidature without assigning any reason thereof.
16. No correspondence will be entertained with the candidates who are not called for counseling /selected for appointment.

The applicants can apply for the PhD programme through the online application portal available at https://erp.nitmanipur.ac.in/PhDAdmissionApply/

06/06/2024

(Prof. Kh. Tomba Singh)

Registrar, NIT Manipur

No.NITM.3 (35-Acad)/Reg/PhD/2023-24/ 698 **Dated:** 06../.06../2024

Copy to:

1. PS to the Director, NIT Manipur for kind information to the Director
2. All Deans, for kind information.
3. All Heads of Academic Departments, for kind information and necessary action.
4. Faculty In-charge, MIS for kind information and necessary action.
5. Technical Officer, NIT Manipur for uploading on the institute website
6. Concerned file

06/06/2024

(Prof. Kh. Tomba Singh)

Registrar, NIT Manipur