

**NATIONAL INSTITUTE OF TECHNOLOGY
MANIPUR IMPHAL-795004, INDIA
Admission to PhD Programme in January 2023 Session**

Ref. No. NITM.3(42-DeanAcademics)/09-PhD/2022/219

Dated: 07/11/2022

Applications are invited for admission to PhD Programme in the following Disciplines for January 2023 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 Physics
- Department of Mathematics
- Department of Chemistry
- Department of Humanities and Social Sciences

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

* JRF – External funded projects

** Institute fellowship will be provided only for NET/GATE qualified students

IMPORTANT DATES

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| <i>Opening of portal for submitting online admission form</i> | 07/11/2022- 07/12/2022 |
| <i>Last date to submit online PhD Application form.</i> | 07/12/2022 |
| <i>Uploading List of shortlisted candidates</i> | on or before 19/12/2022 |
| <i>Offline written Test</i> | 17/01/2023 |
| <i>Offline interview:</i> | 18/01/2023. |
| <i>Uploading List of selected PhD candidates:</i> | 18/01/2023. |
| <i>Submission of fees by selected PhD candidates on or before</i> | 20/01/2023. |

Visit institute website: www.nitmanipur.ac.in regularly for more details and updates.

Details of the departmental requirements:

| Sl. No. | Department | Specialization | Essential Qualifications |
|---------|------------------------------|--|--|
| 1. | Civil Engineering | <p>Water Resources (Hydrology & Channel Hydraulics): Hydrological Modelling & Water Balance Analysis, Climate Change Hydrodynamics, Geospatial Applications in Hydrology & Water Resources, Flood Modelling & Forecasting, Fluvial Hydraulics/Sediment Transport.</p> <p>Structural Engineering: Seismic Analysis and Design, Non-Linear Seismic Response of Structures, Seismic Control by Passive and Semi-Active Dampers.</p> <p>GIS & Remote Sensing: Geospatial Applications, Human Security and Geospatial Intelligence, 3D GIS, Geohazards, Mobile Mapping.</p> <p>Environmental Engineering.</p> <p>[#Proficiency in usage of modules/software: MIKE-SHE/HYDRO/EcoLAB, TOPMODEL, HEC-HMS, JAMS-2000; STAAD-Pro, ETABS, SAP; ArcGIS, ENVI+IDL, ERDAS IMAGINE, LPS, etc desired as per specialization.]</p> | <p>Master Degree in Engineering/Technology (or equivalent degree) with a minimum 6.5 CPI/CGPA or minimum 60% marks from a recognized University/Institute; <i>GATE/NET qualified candidates preferred.</i></p> <p style="text-align: center;">OR</p> <p>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; <i>GATE/NET qualified candidates preferred.</i></p> <p style="text-align: center;">OR</p> <p>Bachelor Degree in Engineering/Technology with an excellent academic record, with a minimum 7.5 CPI/CGPA or 70% of marks from a recognized University/Institute with <i>valid GATE/NET score.</i></p> |
| 2. | Computer Science Engineering | <p>Elliptic curve cryptography, speech processing, Information security, artificial intelligence and data mining, , Medical Image Processing, Forgery Detection, Information Security, Machine Learning,</p> | <p>Master Degree in Engineering/Technology or equivalent in IT/CSE or in an appropriate area with a minimum 6.5 CPI/CGPA or 60% marks from a recognized University/Institute.</p> <p style="text-align: center;">OR</p> <p>Bachelor Degree in Engineering/Technology with an excellent academic record, with a minimum 7.5 CPI/CGPA or 70% of marks from a recognized University/Institute and a valid GATE score.</p> |
| 3 | Electrical Engineering | <p>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</p> | <p>Master Degree in Engineering/Technology or equivalent in an appropriate area with a minimum 6.5 CPI/CGPA or 60% marks from a recognized University/Institute.</p> <p style="text-align: center;">OR</p> |

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| | | Converters, Single-Active Bridge (SAB), and Dual Active Bridge (DAB) Converters, Magnetic Levitation System, DC-DC Converter Control, Sliding Mode Control, Event-Triggered Control, Time-delay Systems, Non-Fragile Controller and Observer, Renewable energy planning , soft computing applications, Power System operation and control. | Bachelor Degree in Engineering/Technology with an excellent academic record, with a minimum 7.5 CPI/CGPA or 70% of 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 | Master Degree in Engineering/Technology or equivalent in an appropriate area with a minimum 6.5 CPI/CGPA or 60% of marks. OR Bachelor Degree in Engineering/Technology or MSC in related area with an excellent academic record, with a minimum 7.5 CPI/CGPA or 70% of marks from a recognized University/Institute and a valid GATE score. |
| 5 | Mechanical Engineering | Electronic Cooling, Two-phase fluid flow and heat transfer, LES on Dimples surface, Film cooling in supersonic flow, Design of Bio-enabled structures, High Performance Computational Modelling of Engineered Systems, Multi-disciplinary Design Optimization, Cybersecurity in design 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, IC Engine Optimization, Renewable Energy, Alternate fuels. | Master Degree in Engineering/Technology or equivalent in an appropriate area 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% of marks from a recognized University/Institute and a valid GATE score. |
| 6 | Chemistry | Inorganic Chemistry, Organometallic Chemistry, Organic Chemistry & Catalysis, Material Chemistry, Nanomaterial | Master Degree in Science in an appropriate area with a minimum 6.5 CPI/CGPA or 60% of marks from a recognized University/Institute. |
| 7 | Physics | Nano- technology and Nano-materials, Magnetic Materials, Semiconductor Materials, Electro ceramics materials, Nano-particles, Soft Matter Physics, Nano-composites, Nanomaterial for water purification. | Master Degree in Science in an appropriate area with a minimum 6.5 CPI/CGPA or 60% of marks from a recognized University/Institute. |

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| 8 | Mathematics | Complex Analysis, Fixed Point Theory, Mechanics and Relativistic Mechanics, Numerical Analysis. | Master Degree in an appropriate area with a minimum 6.5 CPI/CGPA or 60% of marks from a recognized University/Institute. |
| 9 | Humanities and Social Sciences | Indian Writing in English, Dalit Literature, Commonwealth Literature, African Writings | Master Degree in an appropriate area with a minimum 6.0 CPI/CGPA or 55% of marks from a recognized University/Institute. |

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. programme, 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. Category certificate for OBC (Non-Creamy Layer)/EWS must be issued on or after 01/04/2022.
4. Sponsored candidate 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) for the Ph.D. admission for the session July-2022 will be accepted through digital/online mode only. The details of fee payment need to fill 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 attending the Written Test at the Institute in physical mode.
10. As no separate Admit Card is issued for the Written Test, hence the candidates are directed to bring any standard Photo I-Card (in Original) with a photocopy thereof, such as, Aadhaar Card, PAN Card, EPIC, 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 at 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 at 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.

Documents required to be uploaded while filling the online admission form

- i) Scan copy of marks sheet/Grade card and certificate of PG.
- ii) Scan copy of marks sheet/Grade card and certificate of UG.
- iii) Scan copy of marks sheet/Grade card and certificate of the higher secondary
- iv) Scan copy of marks sheet/Grade card and certificate of the secondary
- v) Scan copy of proof of date of birth.
- vi) Scan copy of proper category [OBC(NCL)/SC/ST/EWS/ PWD etc.] certificate from the competent authority.
- vii) Form I/II/III/IV.
- viii) Scan copy of recent photographs.
- ix) Scan copy of signature
- x) Scan copy of valid gate score for UG qualified candidates.
- xi) Scan copy of GATE/NET
- xii) Transaction details of application fee paid through online mode as per the given details (Rs. 500 for Gen/OBC OBC(NCL) and Rs. 250 for SC/ST/EWS/PWD).

Details of the bank account:

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| Name: | Director National Institute of Technology Manipur |
| Acc. No.: | 10160100021096 |
| Bank and Branch: | Bank of Baroda, NIT Manipur |
| IFSC code: | BARB0NITMAN |

SELECTION PROCEDURE

The selection process written test and/or interview will be conducted in offline mode only.

SYLLABUS FOR THE ENTRANCE EXAMINATION

The syllabus for the entrance examination/written test will be the latest GATE syllabus of the concerned discipline or syllabus prescribed by the concerned departments.

STIPEND / FINANCIAL ASSISTANCE

Assistantship to the regular students (NET/GATE or equivalent) as per MHRD rules may be given subject to availability of fund. The candidate with no NET/GATE will be in self-sponsored category.

LEGAL JURISDICTION

All other cases, not covered in PhD Ordinances shall be referred to the Senate. All disputes pertaining to the counseling and admission for the Ph.D. programme of NIT Manipur shall fall within the jurisdiction of Imphal, Manipur only.

DISCLAIMER

The statement made in the information brochure and all other information contained herein is believed to be correct at the time of publication. However, the Institute reserves the right to make at any time without notice, changes in and additions to the regulations, conditions governing the admission, requirements, seats, fees and any other information, or statements contained in this information brochure. No responsibility will be borne by the Institute/Admission-in-charge– PG & Research for hardship or expenses encountered by its students / any other person for such changes, additions, omissions or errors, no matter how they are caused.

FORM I- SPONSORSHIP LETTER

(This should be typed on the letter head of the sponsoring organization)

Reference No.

Date:

To

The Director

National Institute of Technology Manipur

Subject: Sponsoring an Employee for PhD Programme

Sir,

We hereby sponsor the candidature of Mr/Ms..... who is an employee in our organization, for joining PhD Programme in at your Institute as a full time student.

It is certified that he/she has completed..... years of service in our organization as a regular employee.

We shall relieve him/herofhis/herdutiesintheorganizationduringthefirsttwoyearsofPhDprogramme.

Signature and Seal of the Sponsoring Authority

FORM II- NO OBJECTION CERTIFICATE FOR NIT MANIPUR PROJECT STAFF

(This should be typed on the letterhead of R&C Section of NIT Manipur)

Reference No.

Date:

To

The Director

National Institute of Technology Manipur

Subject: No Objection certificate for NIT Manipur Project Staff

Sir,

The R&C Section of NIT Manipur has no objection if Mr/Ms a project employee
in the project under department, is admitted in the PhD programme in

Principal Investigator of the concerned project has agreed to allow him/herto attend classes/research work during the
PhD programme.

Signature and seal of Dean (R&C)

FORMM III – NO OBJECTION CERTIFICATE FOR PART TIME STUDENTS

(This should be typed on the letter head of the sponsoring organization)

Reference No. Date:

To

The Director,

National Institute of Technology Manipur

Subject: No Objection Certificate

Sir,

We have no objection if Mr/Msan employee in our organization, is admitted to the PhD programme in at your Institute as a Part Time student.

It is certified that he/she has completed --years of service in our organization/institute as a regular employee.

We shall grant him/her leave of absence to attend classes/ research works at NIT Manipur during PhD programme.

Signature and Seal of the Sponsoring Authority

FORM IV-SPONSORSHIP CERTIFICATE OF EXTERNAL REGISTRATION

(This should be typed on the letterhead of the sponsoring organization)

Reference No. Date:

To

The Director,

National Institute of Technology Manipur

Subject: Sponsoring an employee for PhD programme for external registration

1. Name of the sponsoring organization Address
2. Designation of the applicant
3. Present status of the applicant
4. List of division/section where research work is proposed to be done
5. List of available local supervisor(s)

(Bio-data of local supervisor(s) to be enclosed giving details of designation, qualification, research experience with area of research etc. along with their consent for research guidance)

6. Details of relevant facilities which will be made available to the candidate:

It is certified that he/she has completed years of service in our organization/institute as a regular employee.

If Mr/Ms is admitted to the PhD programme, we agree to relieve him/her to enable him/her to be available at NIT Manipur to attend classes for completion of his/her course work relating to the PhD programme.

Mr/Ms..... will be permitted to carry out research leading to the PhD degree at our organization under the guidance of selected local supervisor. The necessary facilities will be provided for the purpose.

Signature and Seal of the Sponsoring Author