राष्ट्रीय प्रौद्योगिकी संस्थान पटना / NATIONAL INSTITUTE OF TECHNOLOGY PATNA



अशोक राजपथ, पटना, बिहार / ASHOK RAJPATH, PATNA – 800 005, BIHAR

शैक्षिक अनुभाग/ACADEMIC SECTION

संदर्भ / Ref.: 333/Acad./2025-26 दिनांक / Date : 10.06.2025

ADMISSION NOTICE/(प्रवेश सूचना)

(Odd Semester (July-December 2025, Academic Session 2025-26)

National Institute of Technology Patna invites application for admission to Ph.D Programme (including Visvesvaraya PhD scheme for Electronics and IT: Phase-II) through Institute Admission Test and/or Interview and selection for JRF/SRF positions for externally funded projects currently at NIT Patna.

The applicants seeking admission to the Ph.D. programme shall be classified under any one of the following categories:

Full Time Ph.D. Programme:

With Stipend/Scholarship/Teaching Assistantship - Funded by NIT Patna

> Visvesvarava PhD scheme for Electronics and IT: Phase-II (2025-26)

This is a **Full-Time Ph.D program** with fellowship. Total 03 (Three) Full Time seats are available under this scheme in the Department of Computer Science & Engineering (01 seat), Department of Electronics & Communications Engineering (01 seat) and Department of Electrical Engineering (01 seat). For more details of this scheme, visit the website of the agency/ministry concerned.

> Selection for JRF/SRF

There are sufficient numbers of additional positions for JRF/SRF in externally funded project currently under execution at the Institute. Candidates who fulfill the minimum eligibility criteria will be eligible for selection for JRF/SRF position through interview of this process.

Those candidates who could not qualify the written test exam (screening test) may also appear for JRF/SRF position through interview (Refer admission schedule for Ph.D programme- Odd Semester (July-December 2025) during the session 2025-26).

> Area of Specialization

Departments offering the Ph.D. programmes and their area of specialization can be seen at ANNEXURE-I.

> Reservations

Reservations for SC/ST/OBC/EWS/PWD are applicable as per GOI norms.

> Seat Matrix

The seats allotted for the Academic Session 2025-26 in various Departments can be seen at **ANNEXURE – II.**

Eligibility Criteria for Selection

Candidates with following qualification will be eligible for admission to the Ph. D. Programme of the Institute:

- i. M. Tech./ M. E./ M. Arch/ M. Planning/M. Design or equivalent degree with at least 6.5 CGPA (in the scale of 10) or 60 percent marks in aggregate from a recognized technical institute or university.
- ii. B.Tech/BE/B.Arch/MCA*/ M. Sc./ M. Com./ MBA/ MA or equivalent degree with First class, if not specifically mentioned by the Institution, then 60% marks or 6.5 CGPA with a valid GATE/UGC-NET/ CSIR-NET score.
 - * (for CSE branch only)
- iii. The minimum CGPA/ marks percentage shall be relaxed by 0.5 CGPA or 5 percent in case of candidates belonging to the SC/ ST/PwD categories in all cases.
- iv. All Candidates are required to produce a proof of having qualified GATE/UGC-NET/CSIR-NET score card at the time of submission of application form.
- v. The candidates who possess certificates/qualifications from any of the professional societies (such as The Institution of Engineers (India) (IE), The Institution of Civil Engineers (ICE), The Institution of Electronics and Telecommunication Engineers (IETE), The Aeronautical Society of India (AeSI), The Indian Institute of Chemical Engineers, including Polymer and Environmental Group (IIChemE), The Indian Institute of Metals (IIM), The Indian Institute of Industrial Engineers (IIE), etc.) and have enrolled with these institutions with permanent recognition up to May 31, 2013 may also be eligible to participate, as per the eligibility criteria mentioned above. However, the candidates who have enrolled with these institutions after May 31, 2013, are not eligible.

Kindly refer https://aicte-india.org/sites/default/files/professional%20bodies.pdf

Admission Procedure and Other Details

Admission to the Ph.D Programme shall be made by the Institute based on minimum eligibility criteria for the programme and selected after evaluation of the candidate in Screening Test and/or selection Interview conducted by the respective Admission Committee.

Candidates' name with application number, fulfilling minimum eligibility criteria for admission to the respective department and programme will be displayed on the Institute website as per admission schedule. No Separate mail will be sent.

The merit list will be prepared based on selection interview only. Admission will be strictly based on merit subject to verification of documents and original certificates.

> Scholarship & Financial Assistance for Ph. D. Programme

Institute Research Fellowship/Assistantship will be available to the eligible students as per MoE, GOI norms. The Period and amount of research fellowship shall be as per notification of the competent authority from time to time.

Selected candidate is required to execute an undertaking/agreement bond mentioning that they will refund the stipend/scholarship/assistantship received from the Institute in the case of leaving the programme without its completion, irrespective of the reasons at his/her end on the prescribed format.

Note: The scholarships/fellowship/Assistantship from any other agency/ organization are governed by rules and regulation of funding agency only. If certain rules/regulations are not mentioned then candidates shall be governed by PhD rules/regulation of NIT Patna.

Admission Test details and marks distribution for preparation of merit list:

- i. There will be Screening Test consisting of 100 Marks.
- ii. The qualifying Screening test marks is 40% of the full marks of the test for General, EWS and OBC candidate and 35% of the full marks of the test for SC/ST/PwD candidates. Syllabus for screening test will be as per the Syllabus of GATE/NET Exam of respective discipline.
- iii. **There will be Selection Interview** consisting of 100 Marks which would be conducted by the Department/ Centre.
- iv. **Interview:** Candidates based on screening test will be shortlisted for the interview, and are required to appear at Interview. In Selection Interview, **his/ her depth of the knowledge in domain/Research subjects and aptitude for research** will be tested. Their original documents, academic records and credentials will be verified before the interview. If found not eligible for admission, he/she shall not be permitted to appear at the interview and his/her candidature shall stand cancelled. A candidate recommended for rejection by Interview Board is summarily rejected from admission in the program.

v. **Merit list:** The merit list shall be prepared by the admission committee based on the Selection Interview Marks and availability of seat. Cut off marks for admission cannot be less than 50% of full marks for Selection Interview. Selected candidates shall be notified on Institute website bythe Academic Section.

> Fee Structure

The applicable semester fee and its breakup and other details are available on the Institute website. First Semester fee at the time of Admission (excluding Hostel & Mess Fee) is Rs. 59,750/-

Documents required for verification during the Screening Test, interview and admission:

- (I) The candidates are required to bring any standard Photo I-Card (in original) with a photocopy thereof, such as Aadhaar Card, PAN Card, EPIC, Driving Licence, I-Card issued by their Employer, or any Govt./ Public Sector Organisation etc. at the time of Written Test.
- (II) The candidates are required to bring following documents at the time of interview:
 - a. High School Certificate in original.
 - b. Mark sheets of qualifying examination in original.
 - c. Character Certificate issued by the Head of the Institution last attended/ from the employer.
 - d. Caste Certificate {For OBC (NCL)/EWS issued on or after 1st April 2025}.

Self-attested documents:

- a. Downloaded Application form along with proof of on-line payment
- b. Photocopy of High School Certificate
- c. Photocopies of all Mark sheets
- d. A photocopy of GATE/NET score card
- e. A photocopy of the certificate of Caste (if applicable).
- (III) Documents at the **time of admission** (If any document(s) are missing, your admission will stand cancelled):
 - a. Passport size Photographs (4 Nos.).
 - b. Proof of Payment for admission fee.
 - c. Two set of Self attested copies of all the documents listed at S.No. (II) along with original certificates/documents
 - d. Admission letter, if any, issued by the Institute/ verified document/ Admit Card used for the Admission Test.
 - e. Migration Certificate

> Application Procedure:-

- i. All candidates are advised to apply only through online on NIT Patna website http://www.nitp.ac.in. The last date for submission of online application along with the payment of online application fees is 14th July 2025, 5:00 PM. Application fees need to be paid online through Institute website only. Please note that Application form without payment of applicable fee will not be considered.
- **ii.** After submission of online application, applicant should download the printed application for future reference.
- **iii.** Application fee **(non-refundable)** is of Rs. 1500/- for General/ OBC/ EWS and Rs. 750/- for SC/ ST/ PwD.
- iv. Applicants from SC/ ST/ PwD category must enclose Certificate issued by competent authority to claim relaxation in application Fee.

Admission Schedule

Admission Schedule for Ph.D programme Odd Semester (July-December 2025) for the Academic Session 2025-26 can be seen at **ANNEXURE-III**.

> Important Information for Candidates

- i. The admitted candidates shall be governed by the **Ph.D regulations/ordinances of NIT Patna**.
- ii. A candidate can apply online for more than one department, if he/she is eligible for that discipline. However, he/she has to apply separately. Clash of examination is the sole responsibility of the candidate and it will not be entertained.
- iii. A candidate is required to appear for Admission Test and/or Interview separately for all departments at the Institute in physical mode for which he/she has applied.
- iv. Application number allotted to candidates will be used for any future reference.
- v. No separate acknowledgment or call letter will be sent by the institute for attending the Admission Test and Interview at the Institute in physical mode.
- vi. As no separate Admit Card is issued for the admission Test, hence the candidates are to bring a print of their application form along with any standard Photo I-Card (in Original) with a photocopy thereof, such as, Aadhaar Card, PAN Card, EPIC, Driving Licence, I-card issued by their Employer, or any Govt./ Public Sector Organization etc.
- vii. Candidates reporting without any standard I-Card (in original) as stated above shall not be allowed to appear at admission Test/Selection Interview.
- viii. Candidates must report in the Institute at least 30 minutes before start of admission Test else they will not be allowed to appear at the written Test.
- ix. Candidates are advised to visit the Institute website <u>www.nitp.ac.in</u> for regular updates.

- x. The name of the short-listed candidates eligible for the Screening test / Interview shall also be displayed on the Institute website only.
- xi. A candidate shall be considered for Screening test / Interview even if the result of the qualifying examination is awaited. If selected, such candidates will be allowed to join the programme provisionally. He/she is required to submit a certificate from their Principal/Registrar stating that the candidate has completed all course requirements for obtaining the qualifying degree for admission in Ph. D Programme, at the time of written examination/Interview.
- xii. The selected candidates are required to report for admission on due date and time. No separate selection letter will be sent to any candidate.

NOTE: Institute reserves the right to vary the number of seats or cancel the admission process without assigning / informing any reason thereof. The Institute reserves the right to refuse admission to any candidate without assigning any reason. All disputes are subject to Patna High Court only.

For any query, please contact on: Phone: Office: (0612) 237-1929, 237-0843, Ext. 172; Fax: (0612) 2670631

Email ID: acad.help@nitp.ac.in; mis.help@nitp.ac.in

Sd/-

Dean (Academics)

	ANNEXURE-I					
Departments	Area of Specialization					
Electronics and Communication Engineering	RF/Microwave/THz Devices and Circuits, Antenna Engineering, Meta- materials and Meta-surfaces, Radar, VLSI Design, Analog and Mixed Signal Integrated Circuit Design, FPGA-based System Design, Image/Speech/Biomedical Signal Processing, Artificial Intelligence, Wireless Communication and Networks, Network Security, Quantum Communication, Optical communication, Photonics, Drone/UAV Applications, Wireless Sensor Network (WSN), Internet of Things (IoT), Robotics, Intelligent Control.					
Mechanical Engineering	Thermal and Fluids Engineering, Design Engineering, Manufacturing Engineering, Smart Manufacturing, Production Engineering, Industrial Engineering, Aerospace Engineering, Robotics, Applied Mechanics and other sub specializations of Mechanical Engineering					
Mechatronics and Automation Engineering	Mechatronics Product Design, Robotics & Intelligent Systems, Drone/UAV Application, Field Robotics, Smart Material and Structure, Sensor and Actuator, Automation and Control, MEMS, FEA, Computer Integrated Manufacturing, CAD/CAM, Smart Additive Manufacturing, Biomechanics, Implant Design, Biomechatronics					
Chemical Science and Technology	PhD in Chemical Sciences: Chemistry, Applied Chemistry, Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Polymer Science, Material Science & Technology, Nano Technology, Biochemistry, Environmental Chemistry, Life Sciences. PhD in Chemical Engineering: Heterogeneous catalysis, Reaction Engineering and Petroleum Refining, Energy storage devices, Supercapacitors, Fuel cell, Heat transfer using non-Newtonian nanofluids, Complex fluid, Process control, Rheology, Wastewater treatment, Colloid and interface science.					
Mathematics and Computing Technology	Analysis, Algebra, Topology, Differential Equations, Numerical Analysis, Fluid Dynamics, Nonlinear Dynamics, Mathematical Biology, Numerical Methods for PDEs, Stochastic Modelling in Biology					
Applied Physics and Materials Engineering	Experimental: Solid State Physics, Experimental Condensed Matter Physics, Materials Science, Fuel Cells, Ceramic Membranes, Multifunctional Materials, Nano and Bulk Inorganic and Organic Sensing Materials, Biophysics, Thin Films and Optoelectronic Devices, Magnetism in Strongly Correlated Systems, Defect Induced Magnetism by Ion Beam in 2D Materials, Ion Matter Interaction. High temperature deformation, characterization and Finite element simulation. Atomistic Modelling, Polymer Composites, High Entropy Alloys, Bio-Materials and Dynamic analysis Theoretical: Black Hole Physics, String theory, Thermodynamic Information Geometry,					

Humanities and Social Science	Innovation & Entrepreneurship, Optimization, Development Economics, Psychology				
Architecture and Planning	Architecture, Urban Planning, Rural Planning, Climate change, Regional Planning, Architectural Conservation, Heritage Management, Sustainable Architecture, Structural forms in Architecture, Environmental Planning, Vernacular Architecture, Housing, Healthcare Architecture, Building Science, Landscaping, Urban Design, Construction Management & Technology				
Civil Engineering	Structural Engineering, Geotechnical Engineering, Water Resources Engineering, Transportation Engineering, Environmental Engineering.				
Computer Science & Engineering	Artificial Intelligence, Machine Learning, Deep Learning, Pattern Recognition, Recommender System, Big Data, Data Mining, Network and Information Security, Multimedia Security, Threat Modelling, Biometric, Social Networks, Computational Geometry, Data Network, Wireless Sensor Networks, Internet of Things Bioinformatics, Semantic Web, Natural Language Processing, Cloud Computing, Knowledge Engineering, Software Engineering, Blockchain Technology and Cyber Security, Distributed Systems, Cloud Computing, Fog Computing, Security in edge Computing, IoT Security, Access Control, Privacy Models in Cloud. Optimization Algorithms, Evolutionary Algorithms, Differential Privacy, Game Theory, Federated Learning, Human- AI interaction, Graph Neural Network, Computational Biology				
Electrical Engineering	Power and Energy Systems, Electrical Machine & Drives, Control Theory & Practices, Power Electronics & its applications, Electric Vehicles & Energy Storage System, Renewable Energy, Instrumental & Signal Processing, Materials processing & Design/Fabrication of Devices, Semiconductor Devices & Circuit System, Robotics & Automation				

Kindly note:

- i) For admission in a particular department under Full Time category, candidate must qualify for GATE/NET in that particular discipline.
- ii) Applicants are also allowed to pursue multidisciplinary research work.
- iii) For multidisciplinary research, applicant should fill application form for the department in which he/she has GATE/NET score. After selection, a co-supervisor will be allocated to support/collaborate research in the relevant multidisciplinary areas.

ANNEXURE -II

SEAT MATRIX

Department	Seat Allotted	UR	EWS	OBC- NCL	SC	ST	PH (Horizontal)
Electronics and Communication Engineering	16	7	2	4	2	1	1
Electrical Engineering	15	6	1	5	2	1	
Computer Science and Engineering	16	7	2	4	2	1	1
Civil Engineering	15	6	1	4	3	1	
Mechanical Engineering	16	6	2	4	3	1	1
Mechatronics and Automation Engineering	4	2	0	1	1	0	1
Architecture and Planning	8	3	1	2	1	1	1
Mathematics and Computing Technology	6	2	1	2	1	0	
Applied Physics and Materials Engineering	8	3	0	3	1	1	1
Chemical Science and Technology	8	3	1	2	1	1	
Humanities and Social Science	1	1	0	0	0	0	
TOTAL	113	46	11	31	17	8	6

ANNEXURE - III

Admission Activities	Important dates			
Last date of online fee payment and last date of online application	14th July 2025 (upto 5:00 PM)			
Display of list of eligible candidates for Admission Test on Institute' website	16 th July 2025			
Admission Test	21st July 2025			
Result of Written Admission Test	21st July 2025			
Interview for eligible candidates	22 nd July 2025			
Merit list of selected candidates	25 th July 2025			
Admission and Registration in 1st Semester	To be announced later			
Commencement of Classes	To be announced later			