

## Ph.D. Admission Brochure- Spring -2026 Academic Year 2025-26

### Ph.D. Program

## Important Dates

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## Important Dates

Filling of Online Application Form Commence From	31.10.2025
Last Date to Apply Online	29.11.2025
Display of Shortlisted Applicants for Test	01.12.2025
Tentative Date of Ph.D. Written Test(Physical Mode) and Online Interview of Shortlisted Applicants	<p><b>Test Date and Time:</b> 06<sup>th</sup> December 2025 (10:00 AM to 12:00 AM)</p> <p><b>Online Interview Date :</b> To be announced</p>
Declaration of Result	To be announced soon

## Eligibility Criteria

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### Minimum Eligibility Criteria:

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

- Possessing M.Tech. / M.E. / M.Sc. (Engg.) / M.Arch. / M.Pharm. / M.S.(Pharm.)(only from NIPERs)/ M.Sc. (Pharm) / M. Plan./ M.Sc./ MCA / MBA/M.A. or equivalent Degree in relevant branch from a recognized University/Institute with minimum 60% marks or 6.0 CGPA on a ten point scale in the qualifying examination are eligible to apply for admission in the relevant departments.

OR

- Possessing B.Tech./B.E./B.Sc. (Engg.)/B.Pharm/B.Arch./B.Plan. or equivalent Degree in relevant branch from a recognized University/Institute with a minimum of 75% marks or 7.5 CGPA on a ten-point scale in the qualifying examination eligible to apply for admission in the departments as per their Specialization.

**Note:** In this case, the candidates need to pass in more numbers of qualifying Pre- PhD papers.

- Sponsored candidates (supported by Industry or Academia) must have minimum of two years of professional work experience, in addition to the eligibility criteria (a or b). In addition, sponsored candidates should have valid sponsorship for at least three years.

# RELAXATION FOR SC/ST CANDIDATES

Eligibility criteria will be relaxed by 5% marks for SC / ST candidates.

## Note:

1. No Objection Certificate (NOC) from the Institute is mandatory for employees of the Institute which shall be obtained before appearing at the admission test for the Ph.D. program.
2. Employees from other organizations shall produce NOC from his/her respective employers before payment of admission fees.
3. In case of the candidates with other grade point scale, the decision of the equivalence made by the assigned committee of the Institute shall be final.

## Departments Offering PhD

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### Departments offering Ph.D. Program:

1. Architecture & Planning
2. Bio-Engineering & Biotechnology
  - Disciplines – Biotechnology and Bio-Medical Engineering
3. Chemical Engineering
  - Disciplines – Chemical Engineering, Polymer Engineering
4. Center for Food Engineering and Technology
5. Chemistry
6. Civil & Environmental Engineering
  - Disciplines – Civil Engineering and Environmental Science
7. Computer Science & Engineering
8. Center for Quantitative Economics and Data Science
  - Discipline: Data Science, Economics, Mathematics and Statistics
9. Electrical & Electronics Engineering
10. Electronics & Communication Engineering
11. Management
  - Discipline – Management, and Hospitality & Tourism Management
12. Mathematics
13. Mechanical Engineering
14. Pharmaceutical Science & Technology
15. Physics
16. Production & Industrial Engineering
17. Remote Sensing
18. Space Engineering & Rocketry
19. Humanities and Social Sciences
  - *Disciplines: English and French*

## Department Offering Specialization

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### Specializations Offered by Departments

Sr No.	Department	Specialization
1	Architecture & Planning	Architecture Education; Building Science and Technology; Conservation Planning; Construction Management; Culturally Responsive; Built Environment; Disaster

		Management & Planning; Disaster Mitigation; Housing and Community Planning; Sustainability and Green Architecture; Transportation Planning & Management; Urban and regional Planning; Urban and Regional Planning; Urban Governance and Development Planning; Urban Infrastructure Planning Systems; Circular Economy in the Construction Industry; Circular Building Design; Construction and Demolition Waste Management; Circular Urban Systems; Industrial Waste Valorization
2	Bio-Engineering & Biotechnology	Biotechnology; Biomedical Instrumentation
3	Chemistry	
4	Chemical Engineering	Water purification- Remediation of emerging pollutants; Multi-phase polymer blend system for radiation absorber ; Novel strategies of membrane fouling mitigation; Process development for 2D Nanomaterials Synthesis; Boiling thermosyphon loop, power generation, solar heating, and low temperature thermal desalination based on spray droplet flashing; Electrochemical CO2 reduction in flow cellfla ; Process Intensification for CO2 capture and utilization
5	Computer Science & Engineering	Data Science and Optimization, Data Mining, Machine Learning, Big Data Analytics, Natural Language Processing, Image Processing, Software Engineering, Cyber Security, Network Security, Signal Processing, Computer Vision, Biomedical Imaging, IoT and Cloud Computing, Formal Verification, Quantum Computing, Theoretical Computer Science
6	Electronics & Communication Engg.	Optical and Wireless Communication, Optoelectronics, Technologies for 5G & Beyond, Signal Processing and Computer Vision, Sensors and Instrumentation, RF circuits, Antenna Design & EMI-EMC, VLSI and Embedded System Design, Microelectronics
7	Electrical & Electronics Engineering	Control System; Power System; Power Electronics
8	Mathematics	Differential Equation with applications; Computational Fluid Dynamics; Complex Dynamics; Optimization and its applications; Mathematical Modelling ; Quantum information and computation; Applied Statistics; Numerical Functional Analysis; Operations Research: Decision Sciences; Theoretical Computer Science; Numerical Analysis
9	Mechanical Engineering	Heat Power and Design
10	Pharmaceutical Science & Technology	
11	Production & Industrial Engineering	Manufacturing, Materials Engineering and Industrial Engineering; Experimental Nuclear Physics
12	Remote Sensing	
13	Space Engineering & Rocketry	Aerospace (Rocket Propulsion/ CFD/ Aerodynamics), Ramjet, Combustion,

		Microthruster, Fuel Development, Green Propellant, Propellant Processing, low speed flows, high speed flows, hypersonic flows, turbulence, aero-acoustics; Aero-structures and materials
14	Physics	Plasma Physics, Condensed matter Physics, Materials Science, Biophysics, Bio-materials, Functional materials, Electronic ceramics, Nanotechnology, 2d devices, Optoelectronic devices, Thin films, Surface physics, Optics, Photonics, Plasmonics, Statistical Mechanics, Cosmology, Experimental particle physics, General relativity, Atmospheric Physics
15	Management	Organizational Behaviour, Marketing, Entrepreneurship, Finance, Business Analytics, CSR, Entrepreneurship, Communication, Information Systems, Technology Management, Supply Chain Management, Human Resource Management, Sustainable Development, Industrial Engineering Management, Operations Management, Hospitality & Tourism Management
16	Civil & Environmental Engineering	<p><b>PhD (Civil Engineering) - Geotechnical Engineering:</b> Intelligent modelling in Geotechnical Engineering, Soil Stabilisation, Slope stability, Geotechnical Earthquake Engineering, Numerical Techniques in Geotechnical Engineering, Eco-friendly Construction Materials ;<b>Water Resources Engineering:</b> Flow through Porous Media, Social-Hydrology, Water Quality Estimation and Monitoring, Groundwater Modelling, Open Channel Flow, Applied Hydrology, Water Sustainability, Hydraulic Structures, Mine Water Management, Climate Change; <b>Structural Engineering:</b> Structural Dynamics, Floating OWT, Dynamic Cables, Computational Mechanics, Smoothed Particle Hydrodynamics, Earthquake Engineering, Fracture Mechanics, Computational Fluid Dynamics, Construction and Demolition Waste, Sustainable Concrete, Recycled Concrete Aggregate, Molecular Dynamics Simulation, Cement and Ceramic, Self Healing Concrete;<b>Transportation Engineering:</b> Traffic Flow Modelling, Capacity Analysis, Level of Service, Driver Behavior</p> <p><b>PhD (Environmental Science and Engineering) -</b> Water Treatment, Wastewater Treatment, Advanced Wastewater Treatment, Water Quality Monitoring, Atmospheric Chemistry, Air Pollution Monitoring and Modelling, Groundwater Quality Monitoring and Treatment, Microplastics Monitoring and Treatment, Emerging Contaminants Monitoring and Removal, Environmental Nanotechnology, Biochar and Applications, Phytoremediation, Heavy Metal Pollution and Remediation, Heavy Metal Biogeochemistry, Environmental System Optimization, Neural Network Modeling, Soil Quality Monitoring and Remediation</p>

17	Centre for Quantitative Economics and Data Science(CQEDS)	Economics, Statistics, Mathematics, Data Science
18	Humanities and Social Sciences	English and French
19	Centre for Food Engineering and Technology	Food Engineering: Novel food processing and preservation technologies i.e., Membrane, microwave, sonication, Pulse electrical fields and others, 3D Food Printing, Process modelling and Simulation; Food Microbiology: Exploring the microbial spoilage of food and intervention for restricting it; Food Chemistry: Exploring ingredient chemistry for product developments, low-calorie alternatives, low glycemic food, fortification, organic pigment, plant starch and protein modification; Food Waste management: Valorization of Food Waste through Bioprocessing, Conversion of Food Waste to packing ingredient

## Application, Selection Procedure and Reservation Policy

### **Important Instructions:**

- Before applying for the program, please refer eligibility criteria.
- Apply for one department only.

### **How to Apply:**

- To fill online application form, click on the link “**APPLY NOW**” to register for the program and create password for the application process. Do not share the password with anybody.
- Eligible candidates must complete and submit the application form online only [link available on the Institute website [www.bitmesra.ac.in](http://www.bitmesra.ac.in)].
- Pay application fee of Rs.1,500/- (General / OBC candidates) and Rs.1,000/- (SC/ST candidates) through Online Payment Gateway (candidates may use Net banking / Debit card / Credit card of any nationalized bank) till the last date of application process.

**Note: Fees once remitted shall not be refunded under any circumstances.**

### **Selection Procedure:**

The University Grants Commission (UGC), vide its notification dated 27.03.2024 decided that from the Academic Session 2024-25, the National Eligibility Test (NET) score can be used for admission to Ph.D. programs in place of entrance tests conducted by the different Universities/HEIs.

Eligibility Test (NET) scores for admission to Ph.D. Programs.

#### **Guidelines for admissions to Ph.D. for academic session 2025-2026:**

Based on the scores obtained in NET, the candidates will be eligible in three categories.

- Admission under JRF Category will be done as per UGC Notification dated 7 th November, 2022 published in the Gazette of India: Extraordinary no. 544.
- As per UGC Notification dated 27.03.2024, for students who qualify in Categories 2 and 3, 70% weightage will be given for test scores and 30% weightage for the interview for admission to Ph.D. program. The Ph.D. admission will be based on the combined merit of NET marks and the marks obtained in the Interview.

- The marks obtained in the NET by the candidates in Category 2 and 3 will be valid for a period of one year for admission to Ph.D. Programs.
- The University may hold entrance examination for those Ph.D. programs where NET examination in the concerned subjects/disciplines are not conducted by UGC, such as in Engineering
- Note: This may be noted that the Institute Ph.D. Entrance Test shall be conducted for all disciplines and those candidates who have not qualified NET under Category 2 and Category 3 will be required to take the Entrance Test mandatorily.
- Further students who are interested to avail the Institute Reserach Scholarship(IRS) offered by the Institute, need to take the Institute Ph.D. Entrance Test, irrespective of the NET Score, which is just the criterion for getting admission without IRS. However, award of IRS is done on basis of academic records, performance in the Institute Ph.D. Entrance Test and Interview.
- All candidates who are shortlisted for interview shall get intimation from their respective departments through their registered mobile number and email id.
- Merely appearing in the Institute Ph.D. Entrance test/ Interview shall not be basis of selection or award of IRS.

### **Details of Written Test(Physical Mode) and Online Interview:**

Selection to Ph.D. will be of two stage process:

#### 1. Requirement of Minimum Qualifying Marks in Ph.D. Written Test (WT)

##### Group A:

Category	Aptitude Test and Subject Specific Test(100 marks)	Academic Record (60 marks)	Interview (40 marks)	Total (200 marks)
General	30% (each test)	-	-	45%
SC/ST	25% (each test)	-	-	40%

##### Group B:

Category	Aptitude Test and Subject Specific Test (40 marks)	Academic Record (60 marks)	Interview (100 marks)	Total (200 marks)
Sponsored	30% (each test)	-	-	45%

and

#### 2. Personal Interview (PI): Qualified/ Eligible candidates of written test shall be called for Interview

##### **Written Test (Physical Mode):**

**Written Test Schedule:** Please refer to the Important Dates section of the Brochure

**Venue:** BIT Mesra and its Off Campuses at Patna, Deoghar, Noida and Jaipur

**Details of the Written Test :**

a)The test will be conducted in physical mode and its pattern will be MCQ.

b) There shall be two sections:

**Common Aptitude Section- Duration: 45 minutes, Total No. of Questions: 30(1 marks each)**

**Total Marks: 30**

**Subject Specific Section- Duration: 1 hour 15 minutes, Total No. of Questions: 35(2 marks each) Total Marks: 70**

**c) There will NOT be any negative marking.**

**Online Interview: [Qualified / eligible candidates of written test will be shortlisted for interview].**

**The interview of the candidates who are shortlisted/exempted from written test will be conducted as per the schedule given below:**

**Date of Interview: Please refer to the Important Dates section of the Brochure**

**Exemption From the Written Test:**

Those with UGC-CSIR-JRF/DBT-JRF/ICMR-JRF/GATE/NET-JRF and all other similar all India fellowships based written test for Ph.D. admission may be exempted from the Written Test, but the candidate has to appear in the interview.

**Documents Required:**

Candidates are advised to carry the following documents in original during reporting for interview along with a set of photocopies of the same.

1. Pass certificate and Marksheet of Class 10 (bearing date of birth)
2. Marksheet of Class 12 / Intermediate or equivalent
3. Certificate and Marksheetworks of Graduation
4. Certificate and Marksheetworks of Post-graduation
5. College Leaving Certificate
6. Migration Certificate
7. Candidates with qualifications acquired through correspondence or distance- learning programs are eligible only if

(a) they acquired such qualifications as working professionals / while in employment,

(b) the programs are recognized by the DEC- UGC-AICTE or MHRD,

(c) they have passed the qualifying examination at the time of applying, with minimum requisite marks as given in eligibility criteria.

They must enclose photocopies of

- work experience certificate
  - pass certificate and marksheets of qualifying examination
  - proof of the program recognized by the DEC-UGC-AICTE or MHRD in letter head of the Institute/College /University, with their application.
8. UGC-CSIR/DBT/BINC/ICMR-JRF and all other similar all India fellowships based on a written test for pursuing Ph.D. Admit card and Score card (if applicable)
  9. Caste certificate / special category certificate (if applicable) in proper format, signed by appropriate authority.
  10. Sponsorship letter, NOC, Experience Certificate and Facilities available to carry out the research work at their place of working (if applicable) for Sponsored / Part- Time candidates.

The Admission Office / concerned Departments may not undertake detailed scrutiny of applications before verification of documents, and shortlisted applicants will appear in the Test on purely provisional basis,

subject to their eligibility being verified at the time of interviews. Merely being allowed to appear in the Test will not be considered as a ground for being eligible for admission to the Ph.D. program.

## Financial Assistance & Scholarship

### Scholarship Available:

Several Institute Research Scholarships (IRS) with a fellowship amount of Rs. 25,000/- per month for the first year and Rs. 30,000/- per month from 2<sup>nd</sup> year, are available depending on the performance. The minimum marks required for IRS may vary across the departments and shall be decided by an appropriate committee. For detailed information, scholar may contact Dean(PGS) Office.

## Fee Structure

Fee Structure for PhD for 2025 Batch						
Particulars	Semester Fee	Admission Fee*	Caution Money*	Infrastructure Fee*	Course Fee	Thesis Submission
Full Time/BIT Staff	22000	10000	10000	20000	10000	25000
Part Time/Sponsored	44000	10000	10000	20000	10000	25000
<b>* One time fees (At the time admission)</b>						

## Contact Us

### Contact Details:

#### Admission Section

Birla Institute of Technology, Mesra,  
Ranchi – 835 215

Toll-free: 18003457057, 18003457058

Phone: 0651-2275868

Mobile: 9508050840

E-mail: [daac@bitmesra.ac.in](mailto:daac@bitmesra.ac.in), [adaac@bitmesra.ac.in](mailto:adaac@bitmesra.ac.in), [admissions@bitmesra.ac.in](mailto:admissions@bitmesra.ac.in)

For Queries, please contact:

- Dean, Postgraduate Studies through email at [dpgs@bitmesra.ac.in](mailto:dpgs@bitmesra.ac.in) for Ph.D. Ordinance related issues.
- Department Head for Area of Research
- Admission Officials on 0651-2275868 or 9508050840 for admission related issues.

## Discipline Conduct Rules, Anti-Ragging Affidavit, Undertaking etc.

## Discipline, Rules & Regulations, Hostel and Medical Examination

Institute Rules & Regulations: For details of Institute rules and regulations, please see booklet provided at the time of admission.

### Discipline

The Institute places a very high emphasis on discipline of students both inside and outside the campus. Students must abide by the Institute and Hostel rules and agree to conform to the rules and regulations enforced from time to time. They must not do anything either inside or outside the Institute that will interfere with its orderly governance, discipline and image. Students must attend lectures, tutorials and practical classes regularly. A minimum attendance of 75% in lectures, tutorials and sessionals for each subject is essential for appearing in the Semester Examinations. Thus, students should attend all theory and laboratory classes from the first day of the academic year. In case of absence due to unavoidable circumstances, students are advised to take prior permission from the Dean / Head. In case of absence due to illness, students will have to produce a Medical Certificate with an application from their parents or guardians. In such a case, parents/guardians or Hostel Warden should inform the authorities immediately. Students should strike a proper balance between extracurricular activities and academic requirements. A student's participation in extra-curricular activities should not be allowed to interfere in his/her academic schedule.

During teaching hours, the main lobby, the library, the corridors of the Institute and the area surrounding the Institute are to be observed as silence zones. Students must not cause any disturbance in these zones. Students must not indulge in any kind of misconduct or indiscipline or anti-social activities within or outside the campus. Students must not form a group causing any hindrance to the academic and administrative activities of the College. Those found doing so will be punished and strict disciplinary action will be taken by the authorities. Students shall not damage the property of the Institute. Cost of such damage will be recovered from students, parents/guardians of the students.

Students must always carry their Identity Card and produce it on request. In case of loss or damage of Identity Card, the concerned authorities should be informed immediately.

Students are not permitted to enter and use the laboratory / workshop / sports ground if they do not wear appropriate dress. For example, they should enter the laboratory only with apron, cap or mask as instructed. Students should park their cycles in an orderly manner at the cycle stands. Students should follow the rules of the Hostel Mess / Canteen. Students are advised to read the Notice Boards regularly.

Students are strictly prohibited from possessing or consuming spirits, tobacco products and narcotic drugs either within or outside the campus, and if found violating this will be rusticated immediately, without warning.

Ragging in any form inside or outside the campus is strictly prohibited by law. Any students found ragging other students will be summarily expelled from the Institute and dealt with as per the directive of Hon. Supreme Court/Hon. High Court.

Each student must read the "UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009" on the UGC website. Each student admitted to any of the Institute's programs must submit the two completed affidavits [one from candidate and one from parents] at the time of admission. [for details, please refer Annexure -II].

### Hostel

Hostel facilities are provided only at Mesra & Patna Campuses. All students admitted at Mesra and Patna Campuses are required to reside in one of the Institute hostels, to which they are allotted and must take food along with other inmates of the hostel in the common mess. There are separate hostels for girls' students.

### Medical

All selected students will be required to undergo medical examination by a Medical Officer of the Institute and their admission is subject to being found medically fit for the Program. Therefore, candidates, for their own satisfaction, are advised to get themselves examined by a registered medical practitioner.

The Institute at Mesra is located in a spacious green campus. There are small forests with a large number of trees – mostly sal trees which are native to Chotanagpur. These sal trees and a number of other trees and plants have their flowering season during mid-February to early April, and this sometimes leads to a large pollen content in the air. It has been noted that some people who are allergic or susceptible to pollen from these sal trees / other plants may develop some health problems / breathing problems or their existing problems may be aggravated during these weeks, as also during some other months of the year when other plants flower. Thus, such candidates who are known to be sensitive or susceptible to pollen from trees or other plants are required to get allergy tests done / take advice from their physicians / a specialist before taking admission at Birla Institute of Technology, Mesra, Ranchi.

## Applicability of Regulations for the time being in force, Disclaimer and Legal Jurisdiction: In Force

Notwithstanding the nature of a program spread over more than one academic year, the regulations in force at the time a student joins a program shall hold good only for the examinations held during or at the end of the semester. Nothing in these regulations shall be deemed to debar the Institute from amending the regulations subsequently and the amended regulations, if any, shall apply to all students old or new, as specified therein.

### Disclaimer

The statements made in this Information Brochure and all other information, contained herein are believed to be correct at the time of publication. However, the Institute reserves the right to make at any or without notice, changes in and additions to the regulations, conditions governing the conduct of students, requirements for degree, fees and any other information, or statements contained in this Information Brochure. No responsibility will be accepted by the Institute for hardship or expense encountered by its students or any other person for such changes, additions, omissions or errors, no matter how they are caused.

### Legal Jurisdiction

All disputes will be subject to jurisdiction of the Civil Courts at Ranchi city only.

## Annexure – II

### Procedure for submission of Anti-ragging Affidavit [during admission]

#### Step 1:

A student should submit his/her details on the following below mentioned web sites

1. [www.antiragging.in](http://www.antiragging.in) OR

2. [www.amanmovement.org](http://www.amanmovement.org)

Read and confirm that you and your parents/guardians have read and understood the AICTE regulations on curbing the menace of ragging. You should then confirm & agree that you will not engage in ragging in any form.

Step 2:

You will receive an e-mail with your registration number and a web link. You have to forward the link to the Institute Nodal Officer in the below mentioned email ID.

Please note that you will not receive any pdf affidavits and you are not required to print & sign it as used to be the case earlier.

BIT Mesra Nodal Officer: Rahul Rai

## Enrollment Form

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# Enrollment Form

Date: \_\_\_\_\_

**Through: The Dean, Postgraduate Studies (PGS)**

Dear Sir/Madam,

1. I have been admitted to the Ph.D. Program of the Institute in Department of  
..... I am enclosing herewith my biodata for your kind perusal and needful.

2. My proposed field of research will be:

a. Discipline: \_\_\_\_\_

b. Field of Research work: \_\_\_\_\_

c. Name of the Guide: \_\_\_\_\_

d. Proposed Course work:

Theory		Term Paper	
Code	Subject	Code	Subject

3. The No Objection Certificate from my organization (for part - time research scholar only) is attached herewith. The certificate for providing the required research facilities by my organization/institution is also attached herewith.

4. I certify that the particulars given above are correct and I undertake to
- a. Abide by the Rules of the Institute during the Ph.D. Program.
  - b. Appear before the relevant Admission Committee whenever directed to do so.
  - c. Take any test or qualifying examinations as specified for the Ph.D. program.

5. The proof of my date of birth, caste (General/OBC/BC/SC/ST) and qualifications are attached.

6. I shall also comply with residential requirement specified for the Ph.D. program.

Thanking you Yours  
faithfully,

Signature: \_\_\_\_\_

Name: \_\_\_\_\_ Roll No. \_\_\_\_\_

Approved / Recommended / Comments

\_\_\_\_\_

Chairperson (DAC/OAC): \_\_\_\_\_

