

IIIT BHUBANESWAR
ADMISSION BROCHURE
DOCTORAL PROGRAMME - 2024-25
(SPRING SESSION)

Important Dates

Starting date of online application	6 th Feb 2025
Last date of submission of online application	28 th Feb 2025
Date of written test and interview	10 th – 14 th Mar 2025
Date of publication of result	20 th Mar 2025
Date of provisional registration and commencement of classes	1 st April 2025
Under unavoidable circumstances the above dates may change. The applicants are advised to visit our admission website regularly to check any change in the schedule.	



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1. About the Institute

IIIT Bhubaneswar owes its origins to the initiative of the Government of Odisha to establish a world class institute of Information Technology in the state. The Institute has been registered as a society in November 2006. In January 2014, the Institute is converted to a University by the Government of Odisha.

IIIT-Bhubaneswar has its focus on quality and rigorous education, quality resources, academic infrastructure, technology, and innovation. These initiatives have helped IIIT-Bhubaneswar achieve pre-eminence in India and beyond.

Our vision is to be a unique institute imparting education, training, research, innovation and consulting in technology and related fields to develop human resources who will lead the economy and the society in the coming decades. The Institute is well equipped with state-of-the art technology enabled teaching methodology backed by a strong research curriculum.

The mission of IIIT is to be a knowledge intensive Institution of higher learning that will educate students in technology and other disciplines. The Institute will work closely with the industry and other users of technology to develop and deliver technological solutions to enhance their competitive positions.

IIIT-Bhubaneswar provides facilities for research leading to the Degree of Philosophy (Ph.D.) in Computer Science, Engineering, Basic Science and Humanities in various disciplines. The degree will be awarded to a candidate by the university on successful completion of the stipulated research programme.

2. Doctoral Programme

The Doctoral Programme in the Institute is designed to educate scholars who make a difference through rigorous academic research for a period of four years. The programme offers students opportunities for advanced studies and research in different specializations related to Engineering, Science and Humanities. The Programme aims to prepare students for careers in teaching and research in related disciplines and for careers in the government, in industry, and in other organizations that require advanced analytical and research capabilities.

Research scholars are involved in seminars, working groups and many academic events within and across departments where they actively participate and present their work in addition to conducting research.

3. Research Facilities

The Institute provides good academic and research infrastructure. Some key highlights of such infrastructure are:

- High performance computing facility
- A good collection of scientific computing software
- Laboratories for experimental research
- A large collection of academic recent books and journals

The Institute proposes to collaborate with reputed institutes of Research and Higher Learning in geographic vicinity to augment research facilities to be made available to its scholars.

4. Departments Offering Doctoral Programs this Session

The Institute is offering Doctoral Programmes in the following Disciplines/Departments for this session.

Table 1: Departments Offering Doctoral Programmes

Department/Discipline	Broad Area
Computer Science and Engineering	Process Mining, Information Security, Computational Biology, Pattern Recognition, Machine Learning, Cognitive Computing, Data Science, Big Data Analytic, Social Media Analytic, Computer Vision, Image and Video Processing, Natural Language Processing, MANET, 5G, VoLTE, VoWiFi, WSN, IoT, Blockchain, Cloud/Edge Computing, Software Defined Network
Electronics and Telecommunication Engineering	Optical communication (Fiber, OWC, FSO), IsOWC, Non-linear Optics, Optical Signal Processing, Biomedical Signal Processing, Image processing and Computer Vision, VLSI Architecture, Antenna Design: Smart Antenna System, Beam Switching Antenna, DRAs, Reconfigurable Antennas, RF and Microwave Circuit Designs, Localization, Beamforming, and Radar imaging in MIMO Radars, and

	OFDM for beyond 5G Technology, Embedded System and IoT
Electrical and Electronics Engineering	Power system, Electric Vehicle, Power Electronics, Control System, Power Quality, Renewable Energy System, Power System applications with AI and ML, Optimal stochastic planning of power distribution network, Signal system, Optimal stochastic planning of power distribution network
Mechanical Engineering	Design and Dynamics, Heat Transfer, Solar Energy
Basic Sciences and Humanities - Chemistry	Organic Chemistry, Polymer Synthesis, Material Characterization, Computational Chemistry.
Basic Sciences and Humanities - Physics	Quantum computing
Basic Sciences and Humanities - Mathematics	Fractional Calculus, Functional Analysis

5. Types of Scholars

The Institute's Doctoral Programme admits the following types of scholars.

Table 2: Types of Scholars

Scholar Category	Student Category	Financial Assistance
Full Time with UGC/NET/CSIR Fellowship (FTUF)	Full Time	UGC/CSIR
Full Time with Institute Fellowship (FTIF)	Full Time	Institute Fellowship
Full Time Project Fellow (FTPF)	Full Time	Sponsored Project
Full Time Self-Financed (FTSF)	Full Time	Sponsored / Self-Financed
Part Time Self-Financed (PTSF)	Part Time	Sponsored / Self-Financed

6. Eligibility

The eligibility criteria for admission to Ph.D. programme are as follows: Must possess minimum qualification in relevant discipline and minimum CGPA / % Marks.

Table 3: Minimum Qualification

Programme	Qualification	CGPA	Aggregate Percent
Engineering	M. E. / M. Tech. / M. Sc. / M. C. A	7.5	70
Engineering	B. E. / B. Tech. from an Institute of Repute	8.0	75
Science	M. Sc.	6.5	60
Candidates must have first class in the preceding degrees to the minimum qualification starting from 10th class. A single relaxation up to 10% marks in secondary/higher secondary/equivalent shall be allowed.			

- Institute of Repute are IITs, NITs, IIITs. Other Institutes may be included in this list by the Competent authority on case-to-case basis.
- A concession of 5% in marks or 0.5 in CGPA may be given to SC/ST candidates as per the Govt. norms.

In order to promote interdisciplinary research candidates having minimum qualification in other relevant branches are encouraged to apply. Students with degrees in one discipline can enroll for a Ph.D. in another discipline if such discipline is considered relevant by the Institute as per the following table.

Table 4: Cross-discipline Eligibility

Department	Eligibility
Computer Science and Engineering	B.E. / B. Tech. / M. E. / M. Tech. / M. Sc. in Electronics Engineering / Electrical Engineering / Information Technology / Math / Physics, etc.
Electronics and Telecommunication Engineering, Electrical and Electronics Engineering	B.E. / B. Tech. / M. E. / M. Tech. / M. Sc. in Electrical Engineering / Math/ Physics, etc.

7. Reservations

Reservations for the candidates in Ph.D admission are carried out as per the UGC Guidelines / Govt. Rules.

8. Application Procedure

Visit our website www.iiit-bh.ac.in to apply online for the Ph.D. programmes. Please note that only online applications are accepted. The payment details of the nonrefundable application fee must be ready at the time of filling out the online application form since those details must be entered in the application form. It is advised to keep a soft copy of the payment details for any future reference. Applications without the nonrefundable application fees will not be considered for further processing. Follow the below-mentioned steps to apply online.

8.1 Paying the Non-refundable Application Fee

- Pay the nonrefundable application fee of Rs. 1000/- (Rupees one thousand only) along with the applicable convenience charges from the payment gateways through online transaction.
- The nonrefundable application fee can be paid through SBI collect platform.
- To reach at SBI collect, type the following in your web browser: <https://www.onlinesbi.sbi/sbicollect/icollecthome.htm>
- Click the check box available beside the statement “I have read and accepted the terms and conditions stated above”. Then press the proceed button.
- Select State as “Odisha” and Type of Corporate/Institution as “Educational Institutions”. Then press “Go”.
- Select Educational Institutions Name as “INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY”. Then press “Submit”.
- Select payment category as “Application Fees”.
- Please fill in your 10-digit cell phone number in the application ID/Roll No field.
- Pay the application fee and check the transaction status to be successful. If the transaction status is not successful/pending, then you may have to make the payment again. It’s your responsibility to make sure that the payment is successful.
- Keep the generated transaction receipt showing successful payment for any future reference.

8.2 Applying Online

- Click on the link given in the IIT Bh' s admission website to apply online.
- You need to have a Gmail account to fill up the online application form.
- Carefully fill in all the relevant fields of the blank application form, which includes the payment details.
- Once you submit the online application form, a response link shall be delivered to your email id. You must save that response for any future reference.
- You can also edit the data in the application form by using the response link sent to you.
- In the case of multiple submissions of online application by a candidate for a particular discipline, the last submission by the candidate shall be considered and used for the purpose of admission.

Note:

- Online applications without successful payment details (done against nonrefundable application fees) shall be treated as invalid and hence, they are not going to be considered for the purpose of admission.
- Candidates wishing to apply in more than one discipline are required to apply separately.

8.3 Documents Required at the Time of Application

The following documents shall be required at the time of document verification:

- a) Scanned copy of 10th grade mark sheet and pass certificate in PDF format.
- b) Scanned copy of 12th grade or Diploma mark sheet and pass certificate in PDF format.
- c) Scanned copy of B.E./ B.Tech./ Under Graduation (UG) mark sheet and pass certificate in PDF format.
- d) Scanned copy of Post-Graduation (PG) mark sheet and pass certificate in PDF format.
- e) Scanned copy of Valid NET (JRF) or GATE score (if qualified) in PDF format.

- f) Scanned copy of a “No Objection Certificate” (NOC) in PDF format from your current employer, if you are an employee of any Organization.
- g) Scanned copy of the Odisha nativity certificate in PDF format, if you are from Odisha and applying under FTIF category.

8.4 Uploading of Documents

The applicants are required to make a single PDF file containing the scanned/soft copies of the documents mentioned above. The PDF file must be named as applicant’s primary mobile number. For example, if an applicant’s mobile number is 1234567890, then s/he must name the PDF file as 1234567890.pdf. The file size must be limited to 100 MB.

9. Selection Procedure

The Selection Procedure involves the following:

- A short listing of candidates will be made based on the educational qualifications.
- Those short-listed candidates will undergo an admission test as follows:
 - NET-qualified candidates shall appear for the following:
 - a) Research Aptitude Test (RAT), and
 - b) Personal Interview (PI).
 - Candidates who have not qualified the NET shall appear for the following:
 - a) Written Test (WT),
 - b) Research Aptitude Test (RAT), and
 - c) Personal Interview (PI).

to be conducted by IIT Bhubaneswar in physical mode.

All these components are mandatory in nature. Failing to appear in one of these components shall lead to cancellation of candidature.

The detailed schedule of the admission test shall be notified separately. The candidates are advised to visit the admission website regularly.

9.1 Written Test

The written test shall be of 70 marks

11 Questions of 2 marks each = 22 marks for Aptitude (Common to all branches)

24 Questions of 2 marks each = 48 marks for concerned Branch Subject
(Different to all branches)

The duration of the test shall be 1 Hour and 30 Minutes. The answers to the questions will either be of brief-descriptive nature or solving a numerical. The syllabus for the WT is given below.

Table 5: Written Test Syllabus

Department	Contents
Computer Science and Engineering	UGC-NET Syllabus for Computer Sc. & Applications
Electronics and Telecommunication Engineering	UGC-NET Syllabus for Electronics Science
Electrical and Electronics Engineering	GATE Syllabus for Electrical Engineering
Mechanical Engineering	GATE Syllabus
Chemistry	CSIR-NET Syllabus Chemical Sciences
Mathematics	CSIR-NET Syllabus Mathematical Sciences
Physics	CSIR-NET Syllabus Physical Sciences

9.2 Research Aptitude Test

The candidates are required to search and download at least 2 base papers (peer reviewed and indexed Journal Paper) of their respective discipline by themselves, do a critical review of those papers, prepare a review report, and make a presentation of their review. This is required for the research aptitude test.

For the RAT, a candidate must prepare a review report in PDF file and name the file as “his/her application id_RAT”. Your application ID is your primary 10-digit cell phone number that you have registered during the payment of the non-refundable application fee. For example, if a candidate has application id 1234567890, then the name of the file should be “1234567890 RAT.pdf”. The same file must be mailed to the respective department by 05.03.2025, 5:00 PM. The discipline-wise email ids to send the report is given below.

Table 6: Discipline-wise Email ids to Send the Report

Discipline	Email-id
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Computer Science and Engineering	cse@iiit-bh.ac.in
Electronics and Telecommunication Engineering	etc@iiit-bh.ac.in
Electrical and Electronics Engineering	eee@iiit-bh.ac.in
Mechanical Engineering	me@iiit-bh.ac.in
Chemistry	bsh@iiit-bh.ac.in
Mathematics	bsh@iiit-bh.ac.in
Physics	bsh@iiit-bh.ac.in

The candidates are also required to bring a printout of their review report and submit the same during the admission test at IIIT Bhubaneswar.

For the presentation under the RAT, a candidate must prepare his/her presentation slide in MS Power Point or Beamer (LaTeX platform). The presentation can be brought in a USB stick, or a candidate can use his/her own laptop to present the slides.

9.3 Personal Interview

A personal interview will be conducted to assess a candidate's subject knowledge in the relevant discipline. It will be conducted immediately after the RAT.

10. Fellowship and Financial Assistance

The UGC and CSIR offer financial assistance to scholars qualified in NET (JRF) examinations. The candidates aspiring to be full-time scholars are encouraged to get qualified in these examinations. Other Government Departments also offer scholarships for Doctoral Programmes. The Institute assists the scholars in availing such scholarships.

The Institute has a limited number of assistantships for the Odisha Domicile students which are offered to Full-Time scholars for 4 years. However, if sufficient number of students belonging to Odisha state is not available the scholarship may be offered to meritorious students from outside the state. During the first two years they will be offered a stipend of Rs. 37,000/- per month. In the next two years they will be offered a stipend of Rs. 42,000/- per month.

In the case of students awarded a scholarship by an external agency or from a research project operating in the Institute, the rules shall be governed by the provisions specified by the sponsor.

11. Fee Structure

The fee structure for the Ph.D. Programmes is given in Table 7.

Table 7: Component-wise Fee Structure

Component	1 st Year in INR	2 nd Year in INR	3 rd Year in INR	4 th Year in INR
Tuition Fee	20,000 per Semester	20,000 per Semester	20,000 per Semester	20,000 per Semester
Admission Fee (One Time)	30,000			
Thesis submission fee (One Time)	Rs. 20,000 at the time of Thesis Submission			
Hostel Accommodation (triple sitter room) including electricity, water charges.	10,000 per Semester	12,000 per Semester	12,000 per Semester	14,000 per Semester
Hostel Accommodation (double sitter room) including electricity, water charges.	14,000 per Semester	16,000 per Semester	16,000 per Semester	19,000 per Semester
Hostel Accommodation (single sitter room) including electricity, water charges.	23,000 per Semester	27,000 per Semester	27,000 per Semester	31,000 per Semester
Campus Utility and Establishment Charges	5,500 per Semester	7,000 per Semester	7,000 per Semester	8,000 per Semester

Note: The Tuition fee per semester needs to be paid by the scholar till submission of the thesis.

12. Reservation of Rights

The rules and regulations mentioned in this information brochure are provisional and may change. The rules and regulations in force will be applicable to admitted students. This bulletin is applicable for admission to 2024-2025 batch only. However, IIIT Bhubaneswar reserves the rights to make any changes in the requirements of admission guidelines, curriculum, fees, and regulations affecting students should these be deemed necessary in the interest of the students, the Institute, or the profession. Changes, regulations, enactments, if any owing to

any regulatory bodies shall be applicable to the Institute and the students. Any disputes regarding any related matters shall be subject to the legal jurisdiction of Bhubaneswar only, and ought to be raised within one month of declaration of the final results.