

# **Information Brochure**

## **Ph.D. Admissions**



भारतीय सूचना प्रौद्योगिकी संस्थान, लखनऊ

**Indian Institute of Information Technology, Lucknow**  
(An Institute of National Importance by Act of Parliament, Under PPP Mode)

### Applications are invited for admission to the Ph.D. Programme at IIIT-L

Applications are invited for admission to the Doctor of Philosophy (Ph.D.). Applicants meeting the minimum eligibility in the broad areas of Engineering/ Management/ Mathematics are invited to submit their application under the following admission categories:

#### 1. ADMISSION CATEGORIES AND ELIGIBILITY

The applications are invited under the below mentioned categories. All the applicants will be admitted only through the institute's selection process. In general, **the Selection Panel/ Director can relax and/or set higher criteria for selection of suitable candidates.**

S.NO	Category	Minimum Eligibility
1	<b>SELF FINANACED FULL TIME RESEARCH SCHOLARS:</b> The applicants shall not receive any financial support from the institute in any form.	<p>1. Applicants should have qualified CSIR/ UGC/ DAE/ NBHM/ DST/ DBT/ ICAR/ ICMR/ ICPR or secured funding from such an agency after completing the Master's degree in relevant discipline with a consistently good academic record in relevant discipline.</p> <p style="text-align: center;"><b>OR</b></p> <p>1. Applicant should have a Master's degree in relevant discipline with a consistently good academic record.</p>
2	<b>WORKING PROFESSIONAL:</b> An applicant of this category is sponsored by his/her employer. The sponsoring organization must specifically undertake to relieve the applicant to enable residential requirements of the Ph.D. programme and also provide necessary facilities for carrying out the research (if applicable). Such applicants shall not receive any financial support from the institute in any form.	<p><b>1. FOR DETAILS REGARDING ELIGIBILITY AND RESEARCH MODE (PART TIME/FULL TIME, RESIDENTIAL PERIOD etc.):</b></p> <p style="text-align: center;"><b>SEE <u>ANNEXURE A</u></b></p>
3	<b>ASPIRING STUDENTS in HIGHER ACADEMICS (ASHA):</b> This category is specially designated to the fresh graduates from CFTI's/IIT's/NIT's/IIIT's. They shall not receive any financial support from the institute in any form.	<p>1. The minimum educational qualification for admission is a B.Tech degree with at least 8.5 CGPA or 80 % (as applicable in the graduating institute) with a consistently good academic record in relevant discipline.</p> <p>2. Candidates seeking admission, should possess requisite marks/grades in GATE (<b>cutoff to be defined by IIIT L</b>) in Computer Science/EE/EC/Ch.E/ME or related field.</p>

## **2. DURATION AND RESIDENCY PERIOD OF THE PROGRAMME**

- A. The minimum duration of the Ph.D. Programme (excluding dropped semester(s)/maternity leave) is 3 years (36 months) from the date of joining.
- B. All Ph.D. students have to stay within the campus during the entire period of Ph.D. programme. However, special permission, on a case to case basis, may be considered by the competent authority for staying outside the campus.
- C. In general, Ph.D. students with Institute Scholarship can be away from the Institute only after pre-submission seminar. However, in exceptional cases, they may be permitted to leave the institute only after completion of coursework and comprehensive examination. In such cases, Ph.D. category will be converted to another appropriate category, based on the eligibility. This will be based on Board of Doctoral and Post Graduate Studies (BDPGS) recommendation and with the approval of Chairman (Senate). This provision of conversion can be availed of only once during the programme.
- D. The minimum residency period of all categories, shall be the period required by the candidate to complete his/her comprehensive examination.
- E. The maximum period for completing the Ph.D. programme is 5 years (excluding maternity leave) from the date of admission. However, financial assistantship will be up to maximum three years (with possible extension of maximum ONE year after due review and recommendation from supervisor) from the date of joining or date of thesis submission (whichever is earlier).
- F. Semester drop is permitted up to two semesters in the entire duration of Ph.D. programme on bonafide grounds like medical, delay in getting relieving order from preceding organization or any other valid grounds based on BDPGS recommendation and approval of Competent authority. However, the maximum period of completing Ph.D. programme will remain unchanged.

### 3. Important Dates:

The important dates for December-2023 Ph.D Admissions are as follows:

S. No	Particulars	Dates
1	Application forms are available from	3 <sup>rd</sup> October- 2023
2	Application Closing Date	14 <sup>th</sup> November- 2023
3	List of Shortlisted candidates to be displayed on	22 <sup>nd</sup> November 2023
4	Tentative Written and/or Personal Interviews	4 to 7 December 2023

### 4. Research Areas\*:

One can refer to faculty profile for details. However, *priority* will be given to the following areas in this session:

#### Engineering (Computer Science/Information Technology)

WSN, IoT, Threat Assessment and Wireless Communication, Image Processing, Computer Vision, Image Analysis, Pattern Recognition, Biometrics, AI, Deep Learning, Cloud Computing, Fog/Edge Computing, Real-time Data Analytics for Smart Applications, Distributed and Federated Learning, Industrial Applications, Artificial Intelligence, data analytics, Machine Learning, Data Mining, Smart Grid Technologies, Blockchain, NLP, Speech/Dialogue processing, Multimodal sensing

and analysis, Scholarly data processing, Neural machine translation, Summarization, Information Retrieval, Legal Information extraction, Scholarly Data Mining, Text Summarization.

#### Management

Supply chain, Analytics, Information Systems, Operations Research, Human resource management, Linguistics, Applied Linguistics, Business Communication and Education, Economics, Financial Management, Fintech, Finance

#### Mathematics

Homogenization Theory, Elliptic Partial Differential Equations, Optimal Controls, Reliability Theory, Probability and Statistics, Generating New Distributions, Computational Fluid Dynamics, Advanced Numerical Techniques, Fractal Geometry, Self-Similar Tilings, Self-Similar Dendrites, Self-Similar Trees, Design and Analysis of cryptographic primitives, Multivariate public key cryptography, Cryptographically Relevant Quantum Computing.

\*Research Areas may be added to the pool depending upon the availability of the faculty members in different departments of the institute.

#### NOTE:

**AN EXCEPTIONAL RESEARCH PROBLEM, OUTSIDE THE ABOVE-MENTIONED AREAS, MAY ALSO BE CONSIDERED.**

## **5. Application Process:**

- A. All applications will be received through online mode only (APPLY NOW).
- B. The applicant has to carry the print out of all the documents (self-attested scanned copy of the Application form and Supporting Documents) and their originals during the personal interview.
- C. The applicant has to send fresh application to apply for multiple disciplines and payment also to be made separately.
- D. Please read the instructions given in the Ph.D. information brochure carefully before filling up the application form.
- E. **Contact: For any clarification, you may contact us through email at [phdadmissions@iiitl.ac.in](mailto:phdadmissions@iiitl.ac.in)**

## **6. Annexures:**

- A. Click here to download “DETAILS REGARDING ELIGIBILITY AND RESEARCH MODE (PART TIME/FULL TIME, RESIDENTIAL PERIOD etc.)” for WORKING PROFESSIONAL category.
- B. Click here to download “No Objection Certificate” for candidates applying under working professional (if applicable).
- C. Click here to download “Approval Letter” for candidates applying under working professional (if applicable).

## **7. Instructions to be followed after the submission of applications:**

- A. Applicants should check the Institute website for results/important announcements/updates regularly.
- B. The institute shall communicate the list of shortlisted candidates through email only. Hence, applicants should check their email provided in the application for all important communications and announcements.
- C. Candidates called for Written test/Interview should bring the following documents with them:
  - 1. Printout of the self-attested scanned copy of the Application form
  - 2. Printout of the self-attested Supporting Documents
  - 3. Printout of the self-attested proof of payment receipt
  - 4. Photo ID Card.
  - 5. One set photo copies of all the attachments

6. Originals of Application form, proofs of education, date of birth, experience, payment receipt etc. (along with any other relevant certificates and mark sheets.)
7. M.Tech/ME Thesis / dissertation / report.
8. Print out of two best publications representing his/her research background.
9. Contact details of two referees

#### 8. Fees structure\*:

#### Fee Structure for Ph.D. students taking admission from Academic Year 2019-20 onwards

1. \*The below mentioned fee is subject to revision from time to time.
2. \*The Fee Structure for the WORKING PROFESSIONAL category is different and is provided in ANNEXURE A

#### PhD Fee Structure for IIT Lucknow, for January 2023 Session

FEE STRUCTURE FOR PhD (Full Time and Self-Financed Research Scholar)				
For General, OBC, SC, ST, PWD and EWS Category Students				
	Payment For	At the time of admission	Odd Semester(July)	Even Semester (January)
<b>A</b>	<b>Admission Fees</b>			
1	Admission Fee	1500	—	—
2	Institute Caution Money (One Time Refundable)	2000	—	—
3	Enrolment Fee	1000	—	—
4	Identity Card Fee	1000	—	—
5	Alumni Fund	3000	—	—
6	Institute Development and Maintenance Charges	10000	—	—
<b>B</b>	<b>Annual Dues</b>			
1	Benevolent Fund	500	—	500
2	Group Insurance and Student Welfare Fund	1300	1300	—
3	Library Fee	2000	—	2000
<b>C</b>	<b>Semester Fees</b>			
1	Tuition Fee	25000	25000	25000
2	Examination Fee	1200	1200	1200
3	Grade Card Fee	500	500	500
4	Student Activity Fee	1500	1500	1500
5	Medical Fee	500	500	500
6	Hostel Fee (Double Occupancy Rs.10000/- Single Occupancy Rs.20000/-) applicable for self-financed research scholar	10000	10000	10000
7	Electricity and Water charges	3000	3000	3000
	<b>TOTAL Fee to be deposited (A+B+C)</b>	<b>64000</b>	<b>43000</b>	<b>44200</b>
<b>D</b>	Mess Charges (Mess Charges are subject to actual)	<b>15000</b>	<b>15000</b>	<b>15000</b>
Hostel Fee, Electricity and water charges and Mess Fee will be taken only from those students who resides in the hostel.				
Note: Fee structure is subject to revision as per the decision of the BoG of the Institute.				

<b>FEE STRUCTURE FOR PhD</b> <b>(Fee for Working Professional Research Scholar)</b> <b>from July 2021 session</b>		
<b>For General, OBC, SC, ST, PWD and EWS Category Students (in INR)</b>		
<b>S.No.</b>	<b>Fees and Dues</b>	<b>Amount in Rs.</b>
1	Core Credits (Minimum 16)	30000 per credit
2	Tuition Fee	15000 per semester (till final defense)
3	Comprehensive Exam*	30000 (Depth + Breadth + SOTA)
4	Pre-Submission Seminar*	25000
5	Final Defense*	25000

\* To be paid, if applicable.

Note: Fee structure is subject to revision as per the decision of the BoG of the Institute.

**ANNEXURE - A**  
**Indian Institute of Information Technology - Lucknow**  
**Eligibility and Requirements for Working Professionals for Research Studies leading to Ph.D.**  
**Degree at IIIT-L**

Candidates who satisfy the following conditions are eligible to seek provisional registration for Ph.D. course

1. The candidate should be gainfully employed with a firm/organization as a full-time employee.
2. A candidate should have M.Sc. / M.Tech. / M.S. / MBA/ or any other Master's Degree in the concerned subject or any other degree recognized as equivalent thereto with a consistently good academic record.
3. Candidates having experience of five or more years after B.Tech. / MCA with a consistently good academic record, are also eligible for the Ph.D. programme.
4. A sponsored candidate can be a full-time residential scholar in IIIT Lucknow or may even be considered for admission as full time / part time scholar at her/his work place itself, provided the work place could be recognized as a research center upon the compliance of the following stipulations thereto:
  - 4.1. The said work place / professional center should formally sponsor the aspirant candidate for research studies on full / part time basis.
  - 4.2. The Management / Administration of the work place / professional center should agree to extend the research facilities, infrastructural support, library / computing resources and sufficient quality time for the researcher.
  - 4.3. The Management / Administration of the Work place / Professional center should be willing to extend the logistics of providing local hospitality and travel expenses to the research supervisor(s) / Doctoral committee whenever the visit is warranted for monitoring and reviewing the research progress and also grant permission to the candidate to travel to IIIT Lucknow to meet research supervisor(s) / Doctoral committee for discussion and assessment process.
  - 4.4. The Management / Administration of the Work place / Professional center should be able to identify a suitably qualified resource person, if available, to act as a local mentor / local supervisor for the research candidate, who could be identified as the joint supervisor for such a candidate by IIIT Lucknow along with the main supervisor from IIIT Lucknow.
5. Such a sponsored candidate may complete the course requirement in remote mode, remaining in contact with the research supervisor(s) on line / offline. S/he has to carry out the studies as stipulated, submit the assignments, participate in discussion-sessions, present seminars, appear for quizzes, review tests etc. online or in person. However, such a sponsored candidate should plan to be in the campus of IIIT Lucknow with the research supervisor(s) at least for 15 days cumulatively every 6 months.
6. The research papers / patents resulting from such joint work will be the joint properties of both the institute and the professional workplace, and the advantage will be proportionately shared.



7. If the sponsored candidate is a full-time research candidate, s/he would be governed by the present minimum duration stipulations (**refer to the Ph.D. Information Brochure, point number, 2.D).**
8. However, if the sponsored candidate is a part time Ph.D. candidate, then the minimum duration required to submit the Ph.D. Thesis would be 3 years after completing all credit requirements, and the maximum would still remain as per the norms (**refer to the Ph.D. Information Brochure, point number, 2.E).**
9. **In general, all the academic requirements for example, credit requirement, coursework, comprehensive exam etc., will be applicable as per the institute norms.**

**Registration:**

1. The candidate should identify a supervisor/mentor for his study, identify a research topic, identify a relevant field of research from his profession and propose a plan of study. With this pre-preparation the candidate should apply for registration.
2. Provisional registration shall be based on the recommendation of the prospective supervisor and with the approval of the selection committee.
3. The registration is valid for a maximum of five years (excluding maternity leave) from the date of admission.
4. If the candidate fails to submit the thesis even after five years as mentioned above, the registration will become invalid automatically.
5. The final application for the candidate will be submitted only after the supervisor will accord his/her approval.
6. The minimum residency period, for the professionals staying in the campus, shall be the period required by the candidate to complete his/her comprehensive examination.
7. At the time of submission final application, the following documents should be enclosed:
  - a) No Objection Certificate from the place of work (if applicable).
  - b) Approval Letter from the place of work (if applicable).
  - c) Supervisors Acceptance Letter.
  - d) Research Proposal.

**Fee Structure:**

S.NO	Fee Head	Amount
1	Core Credits (Minimum 16)	Rs. 30,000 per credit
2	Tuition Fee	Rs. 15,000 per semester (till final defense).
3	Comprehensive Exam	Rs. 30,000 (Depth + Breadth + SOTA)
4	Pre-Submission Seminar	Rs. 25,000
5	Final Defense	Rs. 25,000

**Case Study:**

Candidate 'A' takes 'M' semesters to complete 16 Core Credits, and an additional 'N' Semesters for the rest of the degree requirements.

So, the fee paid by the candidate 'A'

$$1. \text{ Per semester } [1 \sim M] = \frac{16}{M} \times 30000 \text{ Rupees}$$

$$2. \text{ Per Semester } [M+1 \sim M+N] = 15,000 \text{ Rupees}$$

Therefore, total expense =  $16 \times 30000 + 15000 \times N + 30000 + 25000 + 25000$  Rupees

**Example:**

If  $M = 1$ ,  $N = 4$ ,

Total fee paid by the candidate = Rupees 4,80,000 + Rupees 60,000 + Rupees 30,000 + Rupees 25,000 + Rupees 25,000  
= Rupees 6,20,000 only.

**Annexure B:**

**NO OBJECTION CERTIFICATE (NOC) FOR WORKING PROFESSIONAL CATEGORY**

(This should be typed on a letterhead of the Organization/Institution)

**(AS APPLICABLE)**

To

Faculty In-charge (Post Graduate and Research.)

IIIT Lucknow

Uttar Pradesh.

Dear Sir,

This is to certify that our Organization/Institution has no objection on the candidature of Mr. /Ms. \_\_\_\_\_, who is working as \_\_\_\_\_ to join the Ph.D. programme in the Discipline of \_\_\_\_\_ at IIIT Lucknow under Working Professional Category.

If Mr. / Ms. \_\_\_\_\_ is admitted to the Ph.D. programme in the Discipline of \_\_\_\_\_ at IIIT Lucknow, we shall allow him/her to undergo the programme of studies and also to fulfil the residential requirement (if any) for required course-work at IIIT Lucknow as per your institute rules and regulations.

During the period of the academic programme, the candidate will be permitted to carry out his / her research work at our laboratories / organization and will be given the required facilities.

**Signature and Seal of the Issuing Authority**

**Date:**

**Place:**

**Annexure C**

**APPROVAL LETTER FOR WORKING PROFESSIONAL CATEGORY**

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

To  
Faculty In-charge (Post Graduate and Research.)  
IIIT Lucknow  
Uttar Pradesh.

**Sub: Approval of an Employee for PhD Programme.**

Dear Sir,

We approve the candidature of Mr. / Ms. \_\_\_\_\_ who is an employee with designation \_\_\_\_\_ in our organization for doing Ph.D. programme in the Discipline of \_\_\_\_\_ at IIIT Lucknow, under Working Professional Category.

During the course of the Ph.D programme, all the financial liabilities of Mr. / Ms. \_\_\_\_\_ towards IIIT Lucknow (Fee, Travel support, Registrations in workshops and conferences, Publication charges (if any) etc. ) will be provided by the candidate in full.

**Signature and seal of the Issuing Authority**

**Date:**

**Place:**