

INFORMATION BROCHURE

Ph.D ADMISSION 2024-25

(Part-Time)

Advt. No. IIITR/RG/2024-25/68/PhD (PT)
Date: 13/06/2024



भारतीय सूचना प्रौद्योगिकी संस्थान राँची
INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, RANCHI
(An Institution of National importance under act of Parliament)
Ranchi - 835217, Jharkhand, India
www.iiitranchi.ac.in

1. ABOUT THE INSTITUTE

Indian Institute of Information Technology Ranchi is an autonomous institute setup by the MoE, Government of India, and Government of Jharkhand along with the industry partners TTL, TCS and CCL on a Public Private Partnership (PPP) in the year 2016.

MoE, Government of India has taken up the initiative to setup 20 new Indian Institutes of Information Technology (IIITs) on a Public Private Partnership Model. A major objective in establishing IIITs is to set up a model of education which can produce best-in-class human resources in IT and harnessing the multi-dimensional facets of information technology in various domains. While the number of students produced by these IIITs would be small, the impact they create would be great. IIIT, Ranchi is determined to offer state-of-the-art facilities for advanced studies and research.

1.1 Location of the Institute

Presently, IIIT Ranchi is running from ARTTC BSNL, Near Jumar Bridge, Hazaribag Road, Ranchi, Jharkhand 835217. Construction work of permanent campus is in process at Kanke, Ranchi.

2. ADMISSION TO PART-TIME Ph.D. PROGRAMME

2.1 Applications are invited for admission to the Part-Time Ph.D. programme at IIIT Ranchi

3. Applications are invited for admission to the Doctor of Philosophy (Ph.D.) programme beginning in Autumn 2024. The programme will be offered in Computer Science & Engineering (CSE), Electronics & Communication Engineering (ECE), Mathematics and Physics.

3.1 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.**

TABLE-1: ADMISSION CATEGORY FOR PART-TIME Ph.D. PROGRAMMES

Sl. No.	Admission Category
1	PART TIME SPONSORED CATEGORY

TABLE-2: QUALIFYING DEGREES FOR Ph.D. PROGRAMMES

Sl. No.	Ph.D. Programme	Qualifying Degree
1	Computer Science Engineering	<p>M.Tech/M.E/MS or equivalent in Computer Science and Engineering / Information Technology/ Software Engineering / Electronics and Communication / Telecommunication / Electronics and Instrumentation / Electronics / Electronics and Electrical/Electrical/ any relevant discipline with a consistently good academic record in relevant discipline with two or more years of experience in relevant field.</p> <p>OR</p> <p>B.Tech/BE/MCA or equivalent with a consistently good academic record in relevant discipline with four or more years of experience in relevant field.</p>
2	Electronics and Communication Engineering	<p>M.Tech/M.E/MS or equivalent in Electronics Engineering/Electronics and Communication Engineering/ Electronics and Telecommunication/ Electronics and Instrumentation / Electronics and Electrical/Electrical/ any relevant discipline with a consistently good academic record in relevant discipline with two or more years of experience in relevant field.</p> <p>OR</p> <p>B.Tech/BE/MCA or equivalent with a consistently good academic record in relevant discipline with four or more years of experience in relevant field.</p>
3	Mathematics	<p>a) Applicants with Master's degree in Science/Engineering in the discipline concerned or in an allied discipline/area must have a minimum of 60% marks or 6.0 CPI (on a 10.0 point scale) at the Master's degree level.</p> <p>or</p> <p>b) Applicants with four year Bachelor's degree in Science/Engineering in the discipline concerned or in an allied discipline/area must have a minimum of 75% marks or 7.5 CPI (on a 10.0 point scale) at the Bachelor's degree level. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on 10 point scale) at Bachelor degree.</p>

4	Physics	<p>a) Applicants with Master's degree in Science/Engineering in the discipline concerned or in an allied discipline/area must have a minimum of 60% marks or 6.0 CPI (on a 10.0 point scale) at the Master's degree level</p> <p style="text-align: center;">Or</p> <p>b) Applicants with four year Bachelor's degree in Science/Engineering in the discipline concerned or in an allied discipline/area must have a minimum of 75% marks or 7.5 CPI (on a 10.0 point scale) at the Bachelor's degree level. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on 10 point scale) at Bachelor degree.</p>
5	Humanities/ Social Sciences and Management	<p>a) Applicants with Master's degree in relevant subject or allied subjects with a minimum CPI of 6.00 on a 10.0 point scale (or 60% marks) in the qualifying degree.</p> <p style="text-align: center;">or</p> <p>b) Applicants with Master's degree in Science or Master's degree in Arts/Commerce/any other relevant discipline or allied discipline/area with a minimum CPI of 6.00 on a 10.0 point scale (or 60% marks) in the qualifying degree.</p> <p style="text-align: center;">or</p> <p>c) Applicants with Bachelor's degree in Engineering or Sciences (4-Year program) with a minimum CPI of 7.50 on a 10.0 point scale (or 75% marks) in the Bachelor degree. Applicant with more than two years of professional experience, the minimum requirement shall be 70% marks or 7.0 CPI (on 10 point scale) at Bachelor degree.</p>

4. REQUIREMENTS FOR PART TIME RESEARCH SCHOLAR

- a) Applicant should be sponsored by his/her employer.
- b) Applicant must be a regular employee of the sponsoring organization.
- c) He/She will not receive any financial assistance/support from the Institute.
- d) A No Objection Certificate from the Head of the Institution/ Organization in which he/she is employed must be enclosed at the time of application.
- e) These candidates should be able to attend regular examination as per the schedule of the Institute.

5. 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 course work period of Ph.D. programme. However, in exceptional cases special permission may be given by the competent authority to leave the institute; on a case to case basis.
- C. The maximum period for completing the Ph.D. programme is 7 years (excluding maternity leave) from the date of admission.
- D. 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 DSC recommendation and approval of Competent authority. However, the maximum period of completing Ph.D. programme will remain unchanged.

6. IMPORTANT DATES:

Procedure	Date
Commencement of application form	June 13, 2024
Last date of submission of application form	July 15, 2024
Display of list of shortlisted candidates	July 22, 2024
Date of Written Test and/or Interview	July 29, 2024 (Tentative)
Announcement of results	July 31, 2024 (Tentative)
Reporting at IIIT, Ranchi	Will be notified in the Institute website
Commencement of Semester for all Ph.D. courses for the Session 2024–25	Will be notified in the Institute website

7. RESEARCH AREAS:

Antenna Design, Metamaterial Sensor, Soft Computing in Electromagnetics, Nanoscale Devices/Circuits/System Co-Design, Modeling, Simulation and Fabrication of Semiconductor Devices, Medical Image Processing, Signal Processing, Machine Learning, Deep Learning, IoT in Healthcare applications, Optical Fiber Communication, 5G Communications, Adaptive Signal Processing, Renewable Energy, DC Microgrid, Electric Vehicle Charging Infrastructure, Power Electronics, Biomedical Signal and Image processing, Machine Learning and Pattern Recognition, Digital Image Watermarking, Multimedia Security, Wireless communication, optical communication, optical device, Optical Fiber Communication, Optical Wireless Communication, Optical Quantum Communication, Machine Learning Photonics, Optical Communication, Silicon Photonics, Simulation and Mathematical Modelling of Subwavelength Optical Devices , Optical Sensors, Optical Quantum Sensing, Cloud Computing, UAV assisted Computing, Quantum Inspired Algorithms, Feature Selection, High Dimensional Data, Soft Computing, Artificial Intelligence, Social Network Analysis, Sentiment Analysis, Data Science, Machine Learning, Serverless Computing, Natural Language Processing (NLP), Health Monitoring Systems, Evolutionary Computing, Optimization Techniques, Applied Machine Learning, Predictive Analytics, Precision Agriculture, Artificial Intelligence, Text-To-Speech Synthesis For Indian Languages, AI based Mental Health Analysis and Prediction, Pattern Recognition,

Micro-expression analysis, Strategic Human Resource Management, Organisational Behaviour, Industrial and Labour Relations, Photonic crystal fiber, Photonic crystal as sensor application, Optical communication devices & components, Condensed Matter Physics, Material Science, Polymer Hybrid Nanocomposites, Electron Transporting Layer: Organic Light Emitting Diodes: Electron Transporting Layer, Emissive Layer: Solar Cells
Orbital Mechanics, Astrodynamics, Mathematical Modelling and Numerical Simulation, Differential Equations

8. FINANCIAL ASSISTANCE

Sponsored part-time research scholars are NOT eligible for any financial assistantship from the Institute.

9. PROGRAMME FEE

A candidate will be required to deposit the first semester fee at the time of admission through online portal HDFC pay direct.

The existing structure of the semester wise fees is given below:

Semester	General / EWS/OBC/SC/ST/PC (Part Time)
I	₹ 30000/- (Tuition Fee) + ₹ 15000/- (Institute Fee) + ₹ 20000/- (Caution Money one time)
II onwards	₹ 45,000/- (Tuition Fee + Institute Fee)

***The above fee is under revision and likely to increase.**

MEDICAL FITNESS

- Candidates must be in good health. A candidate is required to submit a medical certificate (as per Annexure II) at the time of reporting at IIIT Ranchi, signed by the chief medical officer (CMO) or equivalent of a government hospital.
- The candidate must check his/her eligibility criteria (wherever applicable) as given in Annexure - II about colour blindness.
- A candidate will be allowed to take admission only if the certificate produced by the candidate is verified to be satisfactory by IIIT Ranchi officials, whose decision in this regard will be final.

10. RESERVATION OF SEATS

- Reservation for SC/ST/OBC (Non-Creamy Layer)/EWS/PC candidates will be as per Government of India rules.
- Form of OBC (Non-Creamy Layer) Certificate (given in Annexure I) must be produced by OBC (Non-Creamy Layer) candidates in the format for 'Admission to Central Educational Institutions (CEIS) under the Government of India' and **should be issued on or after April 01, 2024 or Valid document.**
- Parental Income Certificate for EWS category (as per GoI) must be produced by candidate in the format for 'Admission to Central Educational Institutions (CEIS) under the Government of India' and **should be issued on or after April 01, 2024 or Valid document.**

11. ADMISSION PROCEDURE

- Application form is required to be submitted, which will remain available on the IIIT Ranchi website www.iiitranchi.ac.in.

- (b) Non-refundable application fee of each programme for candidates is **Rs. 1000/-** for UR/EWS/OBC candidates and **Rs. 500/-** for SC/ST/PC/Women/ PWD candidates. The application fee is to be paid by Payment Portal for Ph.D. Admission 2024-25 at **SBI collect** (<https://www.onlinesbi.com/sbicollect/icollecthome.htm>).
- (c) The duly completed application form along with **self-attested copies of supporting documents/testimonials/certificates, No Objection Certificate from employer, experience certificate, payment receipt of fee etc.** are required to be sent by speed/registered post to **the Registrar, Indian Institute of Information Technology Ranchi, ARTTC BSNL, Near Jumar Bridge, Hazaribag Road, Ranchi, Jharkhand 835217, India.** The envelope containing the application be superscribed as **“PhD Admission (Part-time) in ECE/CSE Department”**. Candidates can also apply for more than one programme.
- (d) Institute will receive the application throughout the year and process the applications from time to time as per the requirements.
- (e) List of applicants shortlisted for further participation in the selection process such as written-test and/or Interview will be displayed on the Institute website. No separate communication/intimation in this regard shall be made by the Institute. The date and time of written-test and/or Interview will be informed only through the Institute website.
- (f) It is the responsibility of the candidate, to ensure that he/she satisfies all eligibility criteria for a particular programme, as mentioned in this information brochure.
- (g) The PhD admission will be based on the written test and/or interview by the respective departments.
- (h) The following documents are required along with application form
- (i) Recent passport size photograph and signature.
 - (ii) M.Tech/M.E/MS Degree Marks-Sheet of final semester/ final year.
 - (iii) B.Tech/B.E/MCA Degree Marks-Sheet of final semester / final year.
 - (iv) 10th & 12th Passing Certificate and Mark sheet.
 - (v) Experience certificate
 - (vi) Caste certificate/EWS income certificate to avail seat reservation under respective reserved category. The OBC (NCL) certificate as per Annexure I and issued on or after April 01, 2024. Parental Income Certificate for EWS category (as per GoI) must be produced by candidate in the format for ‘Admission to Central Educational Institutions (CEIS) under the Government of India’ and should be issued on or after April 01, 2024.
 - (vii) Physically Challenged (PC) persons are required to attach a certificate of disability from the authorized medical board attached to one of the following - Vocational Rehabilitation Centre (VRC) for Physically Handicapped persons/ Special Employment Exchange for Physically Handicapped/ Government Hospital (District and State level).
 - (viii) Endorsement/No objection certificate from the present employer.
- (i) The candidate is to report in-person/online at IIIT Ranchi on the scheduled date, time and venue for appearing the written test and/or interview and completing his/her admission. If the candidate fails to report at the test/admission venue in-person/online along with the requisite documents in original by that date and time, he/she will not be considered afterwards for admission.
- (j) In addition to original copy of above-mentioned documents following documents must be produced by the selected candidates at the time of **reporting/joining** to IIIT Ranchi to complete his/her Admission:

- (i) Copy of Admission fee payment receipt.
 - (ii) The Migration Certificate or College Leaving Certificate.
 - (iii) Medical fitness certificate as per Annexure II.
 - (iv) 4 passport size and 10 stamp size colour photographs.
 - (v) Undertaking regarding not claiming institute scholarship for sponsored candidate.
 - (vi) Certificate for degree equivalence (if applicable).
- (k) All other formalities related to identity card, bank account, etc. will be completed subsequently by the candidate.
- (l) The documents of the candidates will be verified by IIIT Ranchi officials. Admission of only those candidates, whose documents are found in order and verified as satisfactory, will be confirmed.
- (m) Caution money is refundable only after completion of the Programme.

11. OTHER IMPORTANT POINTS

- (a) In the event of any information being found false or incorrect or incomplete or non-eligibility being detected at any time before or after admission, his/her candidature is liable to rejection without further communication.
- (b) Students are required to observe prescribed Rules & Regulations and orders issued by the IIIT Ranchi authorities from time to time.

12. DISCLAIMER

This information has been launched to provide candidates and public-at-large, information about IIIT Ranchi Ph.D Admission. If you do not agree to the terms and conditions given below, do not access this site or any pages thereof.

COMMUNICATION WITH IIIT RANCHI

1. Any further query/communication through email should be addressed to assodean.rd@iiitranchi.ac.in and with full identification of the candidate, i.e., name, email, mobile, Programme name(s), category, Sponsored part-time and other identifying codes given by IIIT, Ranchi. *Before asking a query a candidate must go through this Information Brochure / instructions in the Institute website properly.*
2. IIIT Ranchi will not issue any letter by post to any candidate regarding any admission related activity. The candidate must visit the institute website (www.iiitranchi.ac.in) regularly in this regard for any update / instruction / result /announcement.

ANNEXURE – I

**FORM OF CERTIFICATE TO BE PRODUCED BY OBC (NON-CREAMY LAYER)
APPLYING FOR ADMISSION TO CENTRAL EDUCATIONAL INSTITUTIONS (CEIs),
UNDER GOVERNMENT OF INDIA**

This is to certify that Shri/Smt./Kum. _____ Son/Daughter of
Shri/Smt. _____ of Village/Town _____ District/Division
_____ in the _____ State belongs to the _____
Community which is recognized as a backward class under:

- (i) Resolution No. 12011/68/93-BCC(C) dated 10/09/93 published in the Gazette of India Extraordinary Part I Section I No. 186 dated 13/09/93.
- (ii) Resolution No. 12011/9/94-BCC dated 19/10/94 published in the Gazette of India Extraordinary Part I Section I No. 163 dated 20/10/94.
- (iii) Resolution No. 12011/7/95-BCC dated 24/05/95 published in the Gazette of India Extraordinary Part I Section I No. 88 dated 25/05/95.
- (iv) Resolution No. 12011/96/94-BCC dated 9/03/96.
- (v) Resolution No. 12011/44/96-BCC dated 6/12/96 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 11/12/96.
- (vi) Resolution No. 12011/13/97-BCC dated 03/12/97.
- (vii) Resolution No. 12011/99/94-BCC dated 11/12/97.
- (viii) Resolution No. 12011/68/98-BCC dated 27/10/99.
- (ix) Resolution No. 12011/88/98-BCC dated 6/12/99 published in the Gazette of India Extraordinary Part I Section I No. 270 dated 06/12/99.
- (x) Resolution No. 12011/36/99-BCC dated 04/04/2000 published in the Gazette of India Extraordinary Part I Section I No. 71 dated 04/04/2000.
- (xi) Resolution No. 12011/44/99-BCC dated 21/09/2000 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 21/09/2000.
- (xii) Resolution No. 12015/9/2000-BCC dated 06/09/2001.
- (xiii) Resolution No. 12011/1/2001-BCC dated 19/06/2003.
- (xiv) Resolution No. 12011/4/2002-BCC dated 13/01/2004.
- (xv) Resolution No. 12011/9/2004-BCC dated 16/01/2006 published in the Gazette of India Extraordinary Part I Section I No. 210 dated 16/01/2006.

N.B. Strikeout whichever resolutions (i-xv) is/are not applicable.

Shri/Smt./Kum. _____ and/or _____ his family
ordinarily reside(s) in the _____ District/Division of

_____ State. This is also to certify that he/she **does not belong to the persons/sections (Creamy Layer)** mentioned in Column 3 of the Schedule to the Government of India, Department of Personnel & Training O.M. No. 36012/22/93-Estt.(SCT) dated 08/09/93 which is modified vide OM No. 36033/3/2004 Estt.(Res.) dated 09/03/2004 and further modified vide OM No. 36033/3/2004-Estt. (Res.) dated 14/10/2008 and OM36033/1/2013-Estt. (Res.) dated 27/05/2013 or the latest notification of the Government of India.

Dated:

District Magistrate/Deputy Commissioner/Competent
Authority (Seal)

***Please delete the word(s) which are not applicable.**

NOTE:

- a) The term 'Ordinarily' used here will have the same meaning as in Section 20 of the Representation of the People Act, 1950.
- b) The authorities competent to issue Caste Certificates are indicated below:
 - District Magistrate/Additional Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/ Deputy Collector/Ist Class Stipendiary Magistrate/Sub-Divisional magistrate/Taluka Magistrate/Executive Magistrate / Extra Assistant Commissioner (not below the rank of Ist Class Stipendiary Magistrate).
 - Chief Presidency Magistrate/Additional Chief Presidency Magistrate/Presidency Magistrate.
 - Revenue Officer not below the rank of Tehsildar' and
 - Sub-Divisional Officer of the area where the candidate and/ or his family resides.

ANNEXURE – II

**MEDICAL FITNESS CERTIFICATE OF APPLICANT
for Ph.D Admission 2024**

(To be provided by a Chief Medical Officer (CMO) or Equivalent of a Government Hospital)

I, Dr..... after examining (with necessary investigations)

Mr./Ms.....Son/Daughter of Mr./Mrs.....

born on....., certify that he/she has fairly sound constitution, and that he/she has no disease or physical or mental infirmity unfitting him/her now, or likely to unfit him/her in future, for active outdoor work as practical Engineer/Technologist which involves considerable fatigue and exposure.

The following are the results of tests, measurements, etc.:-

1. Mark of identification :
2. Weight :
3. Height (in cm) :
4. Blood Pressure :
5. Pulse rate (beats/min) :
6. Blood Group :
7. Abuse of substances (if any) : Smoking / Alcohol / Drugs / Any other
8. Chest measurements : Contracted: cm Expandedcm
9. Vision: Right Eye: Near: Distant:
Left Eye: Near: Distant:
10. Colour Blindness, congenital or other disease of eye (if any):
11. Hearing: Right ear: GOOD / FAIR / POOR
Left ear: GOOD / FAIR / POOR
12. X-ray PA view of chest with proper identification mark : Satisfactory / Not satisfactory If not satisfactory, then specify why:
13. If any other abnormality noticed:
14. Remarks / Special Recommendations, if any:

Conclusion: Certified that the above mentioned student is free of any communicable disease and fit to stay in hostels provided by IIT Ranchi and attend classes with co-students.

Date :

Place :

(Signature and Seal)

Declaration by the candidate: I declare that all the statements above are true and correct to the best of my knowledge. I fully understand that I am responsible for the accuracy of all statements given.

Candidate's Signature with date: