



भारतीय सूचना प्रौद्योगिकी अभिकल्पना एवं विनिर्माण संस्थान कर्नूल

**INDIAN INSTITUTE OF INFORMATION TECHNOLOGY**

**DESIGN AND MANUFACTURING KURNOOL**

Jagannathagattu, Dinnedavarapadu, Kurnool – 518008, Andhra Pradesh, INDIA  
(An Institution of National Importance under Ministry of Education, Govt. of India)

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**Admission to Ph.D. Programme (Full/Part-time) commencing in December 2022**

**1. THE INSTITUTE**

Indian Institute of Information Technology Design and Manufacturing (IIITDM) Kurnool is an Institute of National Importance, established in 2015. It is fully funded and managed by the Ministry of Education (MoE), Government of India. It is aimed to become a Centre of Excellence for pursuing Design and Manufacturing oriented Engineering Education and Research domains. As on date, the Institute is offering 4 B.Tech programmes in Computer Science and Engineering, Artificial Intelligence and Data Science, Electronics and Communication Engineering, and Mechanical Engineering and 3 M. Tech programmes in Computer Science and Engineering with specialization in Data Analytics and Decision Sciences, Electronic System Design, and Smart Manufacturing. In addition, Ph.D. programmes, in Science and Engineering departments are being offered.

**2. ABOUT RESEARCH PROGRAMMES**

The Institute offers full-time/part-time Ph.D. programmes in the Departments of Computer Science and Engineering, Electronics and Communication Engineering, Mechanical Engineering, Sciences (Mathematics, Physics, and English). Details of broad research areas for admission are provided at **Annexure 'A' and Annexure 'B'**.

**3. EDUCATIONAL QUALIFICATIONS & ELIGIBILITY**

**3.1 Full time Ph.D. admission (Under Institute Fellowship)**

**3.1.1 Ph.D. in Engineering:**

(a) **Applicants holding Master's degree:** Candidates with a M. Tech/M.S. (Research) degree in Engineering/Technology in the appropriate branch of study with a good academic record. (First class with a minimum of 60% aggregate marks or CGPA  $\geq$  6.5 (out of 10) in UG and PG)

SI. No.	Department	Eligibility
1	Computer Science and Engineering	Master's degree in Engineering/Technology. Preference will be given to those with M.Tech./M.E. /M.S. degree in Computer Science and Engineering or equivalent. Should have been qualified in GATE exam any-time
2	Electronics and Communication Engineering	M.Tech. /M.E. /M.S. degree in Electronics and Communication Engineering or equivalent. Should have been qualified in GATE exam any-time.
3	Mechanical Engineering	Master's degree in Mechanical Engineering, Aerospace Engineering, Automobile Engineering, Energy Engineering, Industrial Engineering, Instrumentation, Metallurgical Engineering, Production/Manufacturing Engineering, Mechatronics, CAD/CAM/CIM and other allied areas. Should have been qualified in GATE exam any-time.

**(b) Applicants holding Bachelor's degree:**

Candidates who have Bachelor's degree in Engineering/Technology with exceptionally good academic record will be considered for direct admission to Ph.D. Programme in the engineering departments subject to anyone of the following conditions:

- A B. Tech degree holder from IIT with a minimum CGPA of 8.0 on a 10-point scale or with a valid GATE score.
- A Bachelor's degree holder in Engineering/Technology from any other University who is among the top 10 rank holders in the University and having a valid GATE score. (Proof of Top 10 rank holder certificate should be attached).
- A Bachelor's degree holder in Engineering/Technology from a reputed R&D organization with minimum 60% aggregate marks or CGPA  $\geq 6.5$  (out of 10) and having a proven research record.

**3.1.2 Ph.D. in Sciences**

S.No:	Department	Eligibility
1.	Mathematics	M.Sc. in Mathematics/Applied Mathematics or equivalent with GATE/CSIR-NET/NBHM/Inspire Fellowship and first class with a minimum of 60% aggregate marks or CGPA $\geq 6.5$ (out of 10) in UG and PG.

Additional criteria other than the minimum educational qualifications given in section 3.1 may be set by the Selection Committee from time to time for short listing candidates to be called for test and/or interview.

### 3.2 Full time Ph.D. admission (Under Visvesvaraya Fellowship)

#### 3.2.1 Ph.D. in Engineering:

a) **Applicants holding Master's degree:** Candidates with a M. Tech/M.S. (Research) degree in Engineering/Technology in the appropriate branch of study with a good academic record. (First class with a minimum of 60% aggregate marks or CGPA  $\geq$  6.5 (out of 10) in UG and PG)

SI. No.	Department	Eligibility
1	Computer Science and Engineering	Master's degree in Engineering/Technology. Preference will be given to those with M.Tech /M.E. /M.S. degree in Computer Science and Engineering or equivalent. Should have been qualified in GATE exam any-time
2	Electronics and Communication Engineering	M.Tech. /M.E. /M.S. degree in Electronics and Communication Engineering or equivalent. Should have been qualified in GATE exam any-time.
3	Mechanical Engineering	Master's degree in Mechanical Engineering, Aerospace Engineering, Automobile Engineering, Energy Engineering, Industrial Engineering, Instrumentation, Metallurgical Engineering, Production/Manufacturing Engineering, Mechatronics, Smart Manufacturing, CAD/CAM/CIM and other allied areas.  Should have been qualified in GATE exam any-time.

#### b) Applicants holding Bachelor's degree:

Candidates who have Bachelor's degree in Engineering/Technology with exceptionally good academic record will be considered for direct admission to Ph.D. Programme in the engineering departments subject to anyone of the following conditions:

- A B.Tech degree holder from IIT with a minimum CGPA of 8.0 on a 10-point scale or with a valid GATE score.
- A Bachelor's degree holder in Engineering/Technology from any other University who is among the top 10 rank holders in the University and having a valid GATE score. (Proof of Top 10 rank holder certificate should be attached).
- A Bachelor's degree holder in Engineering/Technology from a reputed R&D organization with minimum 60% aggregate marks or CGPA  $\geq$  6.5 (out of 10) and having a proven research record.

### 3.3 Part-time Ph.D. admission:

#### Applicant Eligibility criteria:

An applicant must satisfy the minimum eligibility criteria, mentioned under (a), (b) and (c) of this section, to consider his/her application for Part-time Ph.D. programme of the institute and additional requirements specific to the departments will be published in website along with advertisement from time to time with the approval from the competent authority.

#### (a) Educational Qualifications

Master's/M.S. (by Research) degree in the appropriate branch of study with first class and a minimum 60% aggregate marks or CGPA  $\geq$  6.5 (out of 10) in UG and PG.

S.No.	Department	Eligibility
1	Computer Science and Engineering	M.Tech. /M.E. /M.S. degree in Computer Science and Engineering or equivalent.
2	Electronics and Communication Engineering	M.Tech. /M.E. /M.S. degree in Electronics and Communication Engineering or equivalent.
3	Mechanical Engineering	M.Tech. /M.E. /M.S. degree in Mechanical Engineering, Aerospace Engineering, Automobile Engineering, Energy Engineering, Industrial Engineering, Instrumentation, Metallurgical Engineering, Production, Manufacturing Engineering, Smart Manufacturing, Mechatronics, CAD/CAM/CIM and other allied areas.
4	Sciences	a.) Mathematics M.Sc./M.A. in Mathematics/Applied Mathematics or equivalent b) Physics Master's degree in Physics/Applied Physics/Material Science

**Note:** For engineering departments, candidates with B.Tech. /B.E. degree, may also be considered if the candidates have at least 6 years of experience with proven track record of research experience.

**(b) Relevant Experience**

Permanent employees who can submit No Objection Certificate from their employer and are working in the cadre equivalent to Scientist-C/Assistant Professor/Lecturer in Government R&D laboratories/Government organizations/Government industry/ PSUs/State Undertakings having at least three years of experience are eligible.

OR

Permanent/Regular Employees from Private Industries/Education Institutions with R & D facilities having at least three years of experience are eligible.

**(c) Organization Qualifications**

- (i) Government R&D laboratories/Government Educational Institutions/ Government organizations/Government industry/PSUs/State Undertakings,
- (ii) Private Organization/Industry/Educational Institutions, to which the applicant belongs to, must be of at least 3 years standing (i.e., established at least five years before the last date of applying for Ph.D. (Part-time) admission as per the advertisement) with membership in CII/ASSOCHEM or any other equivalent membership.

#### 4. PhD Admission (Under Institute Fellowship)

##### 4.1 Admission with Financial Assistance (HTRA):

The scholars admitted to the Ph.D. programmes under Full-time are eligible for the Half-time Teaching/Research Assistantship (HTRA) under the following regulations:

- The scholars should work for at least 8 hours per week to earn this assistantship.
- Renewal of assistantship every semester will be contingent on enrolment, satisfactory progress in research work and good performance during the preceding semester in the discharge of responsibility as teaching / research assistant.
- Financial assistance is provided to selected scholars based on the prescribed rules of MoE.
  - a) 1<sup>st</sup> and 2<sup>nd</sup> Year: Rs. 31,000/-
  - b) 3<sup>rd</sup> to 5<sup>th</sup> year: Rs. 35,000\*/-

(\*The fellowship is awarded based on external assessment after completion of two years).

#### 5. PhD Admission (Under Visvesvaraya Fellowship)

##### 5.1 Admission with Financial Assistance:

- Financial assistance is provided to selected scholars based on the prescribed rules of MoE.
  - a) 1<sup>st</sup> and 2<sup>nd</sup> Year: Rs. 38,750\*/-
  - b) 3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> year: Rs. 43,750\*/-(\*support till PhD completion or 5 Years whichever is earlier).
- **Reimbursement of Rent (RoR):** This component is linked with the fellowship of PhD Candidate. The rate of RoR IS 24%, 16% & 8% (of fellowship) for X, Y & Z class cities/towns respectively. The classification of the cities is as per the notification issued by the Ministry of Finance for the reimbursement of HRA. RoR is applicable to those students, who will not avail the Institute Hostel facility with prior approval of the competent authority.
- **Research Contingency Grant Support:** An amount of Rs.1,20,000/Year/Full-time PhD candidate for support duration of PhD candidate.
- **Support for attending International Conference:** Support up to 1.5 Lakhs/Full-time PhD candidate.
- **Visit to Labs abroad:** A support for each elected Full-Time PhD candidate up to Rs. 10.5 Lakhs for visit to labs abroad

#### 6. Selection Procedure:

- Eligible candidates possessing the minimum educational qualifications and satisfying additional criteria set by the institute from time to time only will be called for a written test and/or interview.
- Based on the academic record and the performance of the candidates in the written test based on GATE 2022 syllabus and/or interview, the selection committee will finalize the names of candidates for admission to the Ph.D. programme.

#### 7. Fee Structure:

The Fee structure for the Ph. D. programme is given in **Annexure 'C'**.

8. No TA/DA will be paid for attending written exam and/or Interview for Ph.D. programme.

**9. Completing the Qualifying Degree and production of Provisional Certificate:**

Candidates joining Ph.D. programme in December 2022 semester have to produce for verification their original mark/grade sheets along with provisional certificates at the time of admission.

**10. Application Procedure:**

Interested and eligible candidates shall submit application using online Admission to Ph. D programme portal available on the Institute website ([www.iiitk.ac.in](http://www.iiitk.ac.in)). Enclosures such as GATE score card, Educational and Experience certificates, online Fees payment receipt, No objection certificate (NOC) and sponsorship certificate in support of application are to be uploaded as separate documents (pdf), along with the application form. In case, NOC is not enclosed at the time of online submission, a self-declaration form should be upload by the candidate stating that NOC will be submitted at the time of interview. No Downloadable Forms will be available. After filling the form, you are advised to take a printout of your application and keep the same for your record.

- Application Fee:
  - a) Gen/OBC candidates: Rs.500/-
  - b) SC/ST/PwD candidates: Rs.250/-

Candidates need to pay application fee only through online mode and the account details are as follows.

**Account Holders Name: Indian Institute of Information Technology Design and Manufacturing Kurnool**

**Account Number: 50100257542350**

**IFSC Code: HDFC0004159**

**Bank Name: HDFC Bank C Camp Center Branch Kurnool**

Application fee once paid is non-refundable.

- Shortlisted candidates qualified for the Written test/Interview need to submit the following applicable self-attested documents and original certificates are to be produced for verification on the day of Written test/Interview:
  - a) Copies of all Mark sheets/grade cards, degree certificates beginning from SSLC towards proof of qualification with Original certificates.
  - b) Copy of Community Certificate in the case of SC/ST/OBC/Economically Weaker Section (EWS) candidates issued by the competent authority of respective State Government.
  - c) Authorized Doctor's Certificate with disability descriptions in the case of Person with Disabled (PwD) candidates.
  - d) Copy of GATE score or UGC - JRF/NET/CSIR/ DAE-JEST/Inspire fellowship or other fellowship award.
  - e) Copy of proof of Experience certificate, if any.
  - f) Copy of No Objection and Sponsorship certificate

**11. Reservation of seats:**

Reservations are applicable as per the rules and regulations of the Govt. of India.

**12. Rules and Regulations for the PhD programs (Institute Fellowship Full time / Part Time and terms and conditions for Visvesvaraya Fellowship) are available in the belowlink:**

<https://iiitk.ac.in/Ph.D.-Admission/page>

**IMPORTANT DATES**

Web notification of the PhD Advertisement and the Application Registration process starts on	18 – 10 – 2022 (Tuesday)
Last date for the submission of online Application forms	13 – 11 – 2022 (Sunday)
Web notification of the short-listed candidates for written test and/or Interview	18 – 11 – 2022 (Friday)
Tentative dates of written test and/or interview (for short listed candidates)	30 – 11 – 2022 to 02 – 12 – 2022 (Wednesday to Friday)
Announcement of Results	09 – 12 – 2022 (Friday)
Last date for the seat confirmation, fees payment for the first semester (selected candidates only) and reporting to the institute.	17 – 12 – 2022 (Saturday)
Report to the Institute	19 – 12 – 2022 (Monday)
Commencement of the Academic Session/Class work	26 – 12 – 2022 (Monday)

**For Any queries, the applicants can drop a mail to: [phdadmissions@iiitk.ac.in](mailto:phdadmissions@iiitk.ac.in)**

**Tentative Broad Research Areas**

**(Under Institution Fellowship)**

<b>Department</b>	<b>Full Time/Part Time</b>
<b>Computer Science and Engineering</b>	Graph Theory and Graph Algorithms, Data Mining, Machine Learning, Data analytics, Data Science, Natural Language Processing (NLP), Databases, Deep Learning, Artificial neural networks, Social Computing, Recommender Systems, Remote sensing, Pattern recognition, Computer vision, Privacy Preserving Cryptography, Post Quantum Cryptography, Theory of Computer Science, Automata Theory, “4G, 5G, High Efficiency Wi-Fi networks, IoT and Edge computing”, SDN and NFV.
<b>Electronics and Communication Engineering</b>	Wireless communication, Software defined radio, MIMO, Visible light systems, Physical layer design, VLSI for Signal Processing, VLSI for Information Security, Wireless and Mobile Communications and Ad Hoc Networks, Software Defined Radio/Cognitive Radio, Global Navigation Satellite Systems, Underwater Communication, VLSI Design
<b>Mechanical Engineering</b>	Vibrations, Dynamics and Control, Nonlinear dynamics, Micro-scale devices, scanning probe microscopy, Design, Solid Mechanics, Fluid Mechanics, Thermal Analysis, Material Analysis, Computational Science (FEM), Metal Additive Manufacturing, Application of AI for Manufacturing Systems/Processor, Developing Digital Twins Working FEM/CED & AI, Industry 4.0, Robotics and Automation areas.
<b>Mathematics</b>	Parameter uniform numerical method for singularly perturbed problems, Numerical solution of partial differential equation, Differential equation, Mathematical Control Theory, Inverse Problems
<b>Physics</b>	Experimental Condensed Matter Physics (MAGNETIC MATERIALS), Electrical & Magneto Transport.



**Tentative Broad Research Areas**

**(Under Visvesvaraya Fellowship)**

<b>Department</b>	<b>Full Time</b>
<b>Computer Science and Engineering</b>	Graph Theory and Graph Algorithms, Data Mining, Machine Learning, Data analytics, Data Science, Natural Language Processing (NLP), Databases, Deep Learning, Artificial neural networks, Social Computing, Recommender Systems, Remote sensing, Pattern recognition, Computer vision, Privacy Preserving Cryptography, Post Quantum Cryptography, Theory of Computer Science, Automata Theory, “4G, 5G, High Efficiency Wi-Fi networks, IoT and Edge computing”, SDN and NFV.
<b>Electronics and Communication Engineering</b>	Wireless and Mobile Communications and Ad Hoc Networks, Software Defined Radio/Cognitive Radio, Global Navigation Satellite Systems, Underwater Communication, VLSI for Signal Processing, VLSI for Information Security, VLSI Design
<b>Mechanical Engineering</b>	Application of AI for Manufacturing Systems/Processor; Developing Digital Twins Working FEM/CFD & AI; Industry 4.0; Robotics and Automation areas.

FEE STRUCTURESemester: I

Description	Ph.D.
<b>I. Institute Fees:</b>	
<b>A. One-time Fees:</b>	
Admission Fee	500
Certificate/Thesis Fee	1500
Student welfare fee	1000
Infrastructure Development Fee	1000
Alumni Life Membership Fee	500
Publication Fee / Library Fee	1500
Cultural Fee	-
<b>Total (A)</b>	<b>6000</b>
<b>B. Semester Fees:</b>	
Tuition Fee	24000
Examination Fee	500
Registration Fee	500
Sports Fee	1000
Medical Fee	1000
Student Amenities Fee	3000
Internet Fee	500
<b>Total (B)</b>	<b>30500</b>
<b>C. Medical Insurance Premium</b>	1000
<b>Grand Total [A+B+C]</b>	<b>37500</b>
<b>II. Hostel Fees &amp; Mess Charges per semester</b>	
Hostel caution deposit ( <i>One-time Refundable Fee*</i> )	10000
Hostel Admission fee	700
Hostel Seat Rent	3500
Hostel Maintenance Charges	9000
Dining charges – Advance	23760
Establishment Charges	1000
Development Fee	1000
<b>Total</b>	<b>48960</b>
<b>Hostellers (I &amp; II)</b>	<b>86460</b>

**Note:** The SC/ST students shall get complete Tuition fees waiver.

**NO OBJECTION CERTIFICATE FROM THE EMPLOYER**

**(To be submitted in the Official Letter Head by the Ph.D. Part time Candidates)**

The application from Mr./Ms .....working as  
..... in ..... since  
....., is herewith recommended and forwarded to pursue Ph.D  
programme under Part-time registration scheme in December 2022 at Indian Institute of  
Information Technology Design and Manufacturing Kurnool in the  
Department of .....

Date:

Signature of the Officer with  
name and address of the Organization

Office Seal

**SPONSORSHIP CERTIFICATE**

**(To be submitted in the Official Letter Head by the Ph.D. Part time Candidates)**

The application from Mr./Ms..... working as ..... in .....since ..... is herewith recommended and forwarded for admission under part time Ph.D. Program in the Department of, Indian Institute of Information Technology Design and Manufacturing Kurnool.

Certified that:

1. Our organization has adequate facilities for carrying out the research as indicated by the applicant and if he/she is selected, these will be made available to him/her till the completion of the programme.
2. The applicant will be deputed/given leave for duration of his/her residence period at IIITDM, Kurnool. (The details of residential requirements are available under RP 3.4 of Part-time Ph.D. - Regulations document on the institute website: <https://iiitk.ac.in/Ph.D.-Admission/page> )
3. Facilities will be made available to the Supervisor (External Research Supervisor) to supervise the work of the applicant and to attend the DC meetings at IIITDM, Kurnool, when necessary.
4. Till the completion of his/her research programme, the applicant will not ordinarily be transferred to another unit or place which may impede his/her work under the scheme. If such a transfer is necessary, IIITDM, Kurnool will be informed atleast before one month of such transfer order.
5. No part of the work carried out in fulfilment of the Research programme will be utilized commercially or for applying for a Patent without the approval of Indian Institute of Information Technology Design and Manufacturing Kurnool.

**Date:**

**Signature of the Sponsoring Authority**

**Name and Designation**

**Seal of the organization/ Institution**