INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN AND MANUFACTURING, KURNOOL

(An Institute of National Importance under Ministry of Education, Govt. of India)

Jagannathagattu, Dinnedevarapadu, Kurnool-518007, Andhra Pradesh

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Admission to Ph.D Programme (Full/Part-time) commencing in July 2021

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 Human Resource Development, 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, six Ph.D programmes, which includes Science (Mathematics, Physics, English) and three engineering specializations Computer Science and Engineering, Electronics and Communication Engineering, and Mechanical Engineering 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'**.

3. EDUCATIONAL QUALIFICATIONS & ELIGIBILITY

3.1 Full time Ph.D. admission:

a). Applicants holding Master's degree

Master's/M.S. (by Research) degree in Engineering / Technology / Mathematics / Physics / English in the appropriate branch of study with minimum 60% aggregate marks or CGPA ≥ 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	Master's degree in Electronics Engineering (Electronics and Communication Engineering), Electrical Engineering, Electrical and Electronics Engineering, Electronics and Instrumentation 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.
4	Mathematics	M.Sc. in Mathematics/Applied Mathematics or equivalent with GATE/CSIR-NET/NBHM/Inspire Fellowship.
5	Physics	Master's degree in Physics/Applied Physics/Material Science and other allied areas with GATE/CSIR-NET/Inspire Fellowship.
6	English	MA in English (TESOL/TESL/ELT) (or) MA in English Literature or allied subjects with NET in English or allied subjects

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 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.
- Bachelor's degree holder in Engineering/Technology from any other University with a valid GATE score and at least CGPA of 8.0 (out of 10) or 75% of marks under Gen/OBC category and at least CGPA of 7.5 (out of 10) or 70% for candidates under SC/ST/PWD category.
- A Bachelor's degree holder in Engineering/Technology from a reputed R&D organization with excellent research record and with minimum 60% aggregate marks or CGPA ≥ 6.5 (out of 10).

3.2 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 any 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.

Candidates have to refer the following and ensure their eligibility before applying.

(a) Educational Qualifications

(b) Relevant Experience

(c) Organization/industry Qualifications

(a)   Educational Qualifications

Master's/M.S. (by Research) degree in the appropriate branch of study with 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 Engineering, Electronics and Communication Engineering, Electrical and Electronics Engineering, Electronics and Instrumentation 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 c) English MA in English (TESOL/TESL/ELT) (or) MA in English Literature or allied subjects

Note: Candidates with B.Tech. / B.E. degree having atleast 6 years of experience in including R&D organization are also eligible to apply for all the departments except sciences.

(b) Relevant Experience

Permanent employees who can submit No Objection Certificate from their employee 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.

Permanent/Regular Employees from Private Industries 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

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.
  (i). 1st and 2nd Year: Rs. 31,000/-
  (ii) 3rd to 5th year: Rs. 35,000*/-
  (*The fellowship is awarded based on external assessment after completion of two years).

4.2 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 test based on GATE 2021 syllabus and/or interview, the selection committee will finalize the names of candidates for admission to the Ph.D. programme.

4.3 Fee Structure:

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

4.4 No TA/DA will be paid for attending Exam and/or Interview for Ph.D. programme.

4.5 Completing the Qualifying Degree and production of Provisional Certificate:

Candidates joining Ph.D. programme in July 2021 semester have to submit their original mark/grade sheets along with provisional certificates at the time of admission.

4.6 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). 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 procedure is given in **Annexure 'C'**. 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

4.7 Reservation of seats:

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

IMPORTANT DATES

Web notification of the PhD Advertisement and the Application Registration process starts on	19-May-2021
Last date for the submission of online Application forms	21-June-2021
Web notification of the short-listed candidates for written test and/or Interview	26-June-2021
Tentative dates of written test and/or interview (for short listed candidates)	12th to 15th July 2021
Announcement of Results	Third Week of July 2021
Last date for the seat confirmation and fees payment for the first semester (selected candidates only)	22-July-2021
Commencement of the Academic session	**26-July-2021 (Tentatively)**

For Any queries, the applicants can drop a mail to: phdadmissions@iiitk.ac.in

Tentative Research Areas

Department	Broad Research Areas
Computer Science and Engineering	Graph Algorithms and Graph Theory, Theoretical Computer Science, Computer Networks and Network Security, Internet of Things, Databases and Data mining, Data Analytics, Data Science, Remote Sensing, Pattern Recognition, Machine Learning, Artificial Neural Networks Image Security, Deep Learning, and any emerging area of specialization related to CSE discipline.
Electronics and Communication Engineering	Wireless Communication, Mobile Communication, Digital Signal processing, Software Defined Radio, Cognitive Radio, Biosensor, Biomedical Instrumentation, Power Electronics, IoT, RF and Microwave Engineering, VLSI Design, Information Security
Mechanical Engineering	Smart Manufacturing, Industrial Process Modelling and Simulation with Data-Driven approaches, Robotics and Autonomous System, Additive manufacturing, Micro and Nano Manufacturing, Surface texturing, Conventional and Non-Conventional Machining, Composite Machining, Fluid mechanics, Heat Transfer, Constitutive Modeling of Materials, Vibration analysis, Computational Mechanics, Smart materials, Nonlinear dynamics, Underactuated Robotics, Soft robotics, Fatigue analysis, Control theory, Solid mechanics, Machine learning in mechanical engineering, Isogeometric analysis, FPGA based finite element solvers, Cellular solids
Mathematics	Mathematical Control Theory, Inverse Problems
Physics	**Theory:** Computational Condensed Matter, Electronic Structure Calculations, Monte Carlo Simulations, Method Development, Quantum Information and Computing. **Experiment:** Nanophotonics, Thin Film Technology, Solar Energy Materials, Waste Water Treatment, Magnetism (Spin excitation's, ac susceptibility, Phase transitions, Anisotropy, Magnetotransport and Resonance studies) in bulk and nanomaterials, Magnetic Skyrmions & Antiskyrmions, Magnetic Refrigeration, Spin Glasses, Core-shell nanoparticles, Nano Catalysts for Sustainable Energy
English	English Language Education, English Language Teaching, Second Language Acquisition, Curriculum and Syllabus Designing, Materials Production

FEES PARTICULARS

Description	Ph.D.
I. Institute Fees	
A. One-time Fees:	
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	-
Total (A)	**6000**
B. Semester Fees:	
Tuition Fee	24000
Examination Fee	500
Registration Fee	500
Sports Fee	1000
Medical Fee	1000
Student Amenities Fee	3000
Internet Fee	500
Total (B)	**30500**
C. Medical Insurance Premium	500
Grand Total [A+B+C]	**37000**
II. Hostel Fees & Mess Charges per semester	
Hostel Admission fee	700
Hostel Seat Rent	3500
Hostel Maintenance Charges	9000
Dining charges – Advance	15700
Establishment Charges	1000
Development Fee	1000
Total	**30900**
Hostellers (I & II)	**67900**

PROCEDURE FOR ONLINE PAYMENT OF APPLICATION FEES

- GO TO: https://www.onlinesbi.com

- Select **"SB Collect"**

- Accept Terms & Conditions

- Proceed

- Select State – Andhra Pradesh

- Select type of institute - Educational Institutions

- Go

- Drop down - PICK UP **"IIIT Design and Manufacturing"**

- Submit

- Select Payment category

- **Ph.D APPLICATION FEE 2021**

- Fill the details

- Select Payment Category

(Rs. 500/- for GEN/OBC and **Rs. 250/-** for SC/ST/PwD Candidates**)**

- Proceed

  - *The copy of online fees payment receipt (pdf) must be uploaded in online application portal*

NO OBJECTION CERTIFICATE FROM THE EMPLOYER

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 July .... 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 Registration 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.

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