भारतीय सूचना प्रौद्योगिकी अभिकल्पना एवं विनिर्माण संस्थान कर्नूल



INDIAN INSTITUTE OF INFORMATION TECHNOLOGY DESIGN AND MANUFACTURING KURNOOL

(An Institute of National Importance under Ministry of Education, Govt. of India)
Jagannathagattu, Dinnedevarapadu (V), Kurnool-518008, Andhra Pradesh.

Ph: 08518-289-111 Fax: 08518-289-127

No. IIITDMK/Ph.D. Admission /2024-25/July Session

Date: 18-04-2024

Admission to Ph.D. Programme (Full-Time & Part-Time) commencing in July-2024

1. THE INSTITUTE:

Indian Institute of Information Technology Design and Manufacturing (IIITDM) Kurnool is an Institute of National Importance under the Ministry of Education, Government of India. It is established in 2015, and aimed to become a Centre of Excellence for pursuing Design and Manufacturing oriented Engineering Education and Research domains. Currently, the Institute is offering four (4) B. Tech. programmes in Computer Science and Engineering (CSE), Artificial Intelligence and Data Science (AI&DS), Electronics and Communication Engineering (ECE), and Mechanical Engineering (ME), three (3) B. Tech Dual Degree Programmes in CSE, ECE & ME, and six (6) M. Tech. programmes in Departments of Computer Science and Engineering (CSE), Electronics and Communication Engineering (ECE), and Mechanical Engineering (ME). *Ph.D. programmes, in Science and Engineering departments are being offered, in frontier research areas under the guidance of experienced faculty.*

Vacancy Table

| Full-Time Ph.D. (Institute Fellowship) | Full-Time Ph.D. (Sponsored Project) | Part-Time Ph.D. | Full-Time Ph.D. (Visvesvaraya Scheme) | Part-Time Ph.D. (Visvesvaraya Scheme) |
|--|---|--------------------|---|---|
| 28 | 6 | 9 | 4 | 2 |

2. RESEARCH PROGRAMME:

The Institute offers full-time/part-time Ph.D. programmes in CSE, ECE, ME and Sciences (Mathematics, Physics, and English).

Details of broad research areas for Institute fellowship / Visvesvaraya Ph.D. Scheme / Self-Finance / Fellowship from external funding agencies and Sponsored Projects are provided in **Annexure 'A' and Annexure 'B'** respectively.

3. CATEGORIES OF ADMISSION:

Candidates will be admitted to the Ph.D. programme of the Institute under any one of the following categories:

- a) Regular full-time Ph.D. under Institute fellowship (HTRA)
- b) Regular full-time Ph.D. with-out Institute fellowship (Self-Financed)
- c) Regular full-time Ph.D. under Sponsored Project(s) (DST / SERB / CSIR / DRDO / MeitY etc.,)
- d) Regular full-time Ph.D. with fellowship from external funding agencies (CSIR-UGC-JRF etc.,)
- e) Part-Time Ph.D.

4. MINIMUM EDUCATIONAL QUALIFICATIONS AND ELIGIBILITY:

The minimum educational qualifications for admission to the **regular full-time** Ph.D. programme of the Institute are as follows:

4.1 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**. First class with 60% aggregate marks or $CGPA \ge 6.5$ (out of 10) at both UG and PG for UR/OBC/EWS category and minimum 55% aggregate marks or 6.0 CGPA for candidates under SC/ST/PwD category.

(or)

(b) Applicants holding only Bachelor's degree:

Candidates who have qualified for the award of Bachelor's degree in Engineering / Technology with exceptionally good academic record in an eligible discipline will be considered for direct admission to Ph. D. Programme as a **regular full-time scholar** subject to fulfillment of one of the following conditions:

- B. Tech. degree holder of a CFTI with a minimum CGPA of 8.0 on 10.0-point scale (or equivalent).
- B. Tech. degree holder of a CFTI with a valid GATE score and with a minimum CGPA of 7.0 on 10.0-point scale or 65% aggregate marks for UR/OBC/EWS category and minimum CGPA of 60% aggregate marks or 6.5 CGPA for candidates under SC/ST/PWD category.
- Bachelors in Engineering / Technology with valid GATE score and at least CGPA of 8.0/10 or 75% aggregate of marks under UR/OBC/EWS category and at least CGPA of 7.5/10 or 70% aggregate for candidates under SC/ST/PWD category.

Table-1: Department-wise eligibility (Engineering)

| | Tuble 1. Department wise englishing (Englishering) | | | | | |
|-------------|--|------------|---|---|--|--|
| S. 3 | No. | Department | Eligibility (As per 4.1 (a)) | Category of Ph.D. admission (Available) | | |
| | 1 | CSE | M. Tech./ME/MS (Research) degree in Computer Science and Engineering or equivalent. | Institute Fellowship | | |
| | 2 | ECE | M.Tech./ME/MS (Research) degree in Electronics and Communication Engineering or equivalent. | (HTRA) / Sponsored Project(s) / | | |
| | 3 | ME | M. Tech./ME/MS (Research) in Mechanical Engineering / Aerospace Engineering / Automobile Engineering / Industrial Engineering / Metallurgical Engineering / Manufacturing Engineering/ Mechatronics / CAD / CAM / CIM and other allied areas. | Self-Financed / Fellowship from external funding agencies / Part-Time | | |

Note: Applicants should have been qualified in GATE examination at any time for taking admission into regular full-time Ph.D. programme under Institute fellowship / Visvesvaraya Ph.D. Scheme / Sponsored Project(s).

4.2 Ph.D. in Sciences: (Mathematics / Physics / English)

(a) **Applicants holding Master's degree:** Master's degree in respective sciences subject discipline with a good academic record and having a valid score in GATE or CSIR-UGC-JRF/ NBHM or equivalent qualification in the relevant area / Master's degree in Engineering/ Technology with a good academic record. First class with 60% aggregate marks or CGPA ≥ 6.5 (out of 10) at both UG and PG for UR/OBC/EWS category and minimum 55% aggregate marks or 6.0 CGPA for candidates under SC/ST/PwD category.

(or)

(b) **Applicants holding only Bachelor's degree:** B. Tech degree in respective sciences subject from an IIT with a minimum CGPA of 8.0 on a 10.0-point scale with a valid GATE Score.

Note:

- (1) The Selection Committee may consider meritorious candidates from disciplines other than listed in the admission notification if there is a good match between the educational/research background of the candidate and the proposed area of research.
- (2) Additional criteria other than the minimum educational qualifications given in section-4 may be set by the Admission Committee /Competent authority from time to time for short listing candidates to be called for written test and / or interview.

Table-2: Department wise eligibility (Sciences)

| S. No. | Department | Eligibility (As per 4.2 (a)) | Category of Ph.D. admission (Available) |
|--------|---------------------------|---|---|
| 1 | Sciences (Mathematics) | M.Sc. in Mathematics/Applied Mathematics or equivalent with a good academic record, as mentioned in 4.2 (a) | Institute Fellowship / Self-Financed / Part-Time/ Fellowship from external Agencies |
| 2 | Sciences (Physics) | Master's degree in Physics/Applied Physics/Material Science with good academic record as mentioned in 4.2 (a) | Under Sponsored Project(s) / Fellowship from external Agencies |

Note: Applicants should have been qualified in GATE examination at any time for taking admission into regular full-time Ph.D. programme under Institute fellowship / Visvesvaraya Ph.D. Scheme / Sponsored Project(s).

4.3 Part-Time Ph.D. admission: (Eligibility criteria for Part-Time Ph.D.)

An applicant must satisfy the minimum eligibility criteria, mentioned under (a) and (b) of this section, to consider his/her application for Part-time Ph.D. programme of the institute. 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

- (i) Master's/M.S. (by Research) degree in the appropriate branch of study with first class and a minimum 60%aggregate marks or CGPA ≥ 6.5 (out of 10) in UG and PG.
- (ii) Applicant should have eligibility as provided in Table: 1 & 2

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) Qualification and relevant experience

Permanent employees who can submit "No Objection Certificate" (NOC) from their employer and are working in the cadre equivalent to Scientist-C/Assistant Professor/Lecturer in Government R&D laboratories /Government organizations / Government industries/ PSUs / State Govt. Undertaking with at least three years of experience are eligible.

OR

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

4.4 Visvesvaraya Ph.D. scheme Phase-II: (Electronics and IT enabled services)

Institute is hosting Visvesvaraya Ph.D. scheme with limited Full-Time & Part-Time, Ph.D. Positions.

- a) M. Tech./M.S. (Research)) Engineering / Technology in the appropriate branch of study. First class with 60% aggregate marks or CGPA ≥ 6.5 (out of 10) at both UG and PG for UR/OBC/EWS category and minimum 55% aggregate marks or 6.0 CGPA for candidates under SC/ST/PwD category.
- b) Applicant should have been qualified in GATE examination any-time.

Broad Research Areas: Please refer to Annexure: A

Stipend/Fellowship (Full-time Ph.D.) @ Rs. 38,750/- per month for first and second years

@ Rs. 43,750/- per month for Third, Fourth and Fifth years.

- ➤ 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.
- Research Contingency Grant: An amount of Rs.1,20,000/Year for Full-time PhD candidate
- Support for attending International Conference: Support up to 1.5 Lakhs / Full-time PhD candidate For more details please visit: https://www.myscheme.gov.in/schemes/vpseit

5. FINANCIAL ASSISTANCE

5.1 Ph.D. Admission (Under Institute Fellowship):

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) 1st and 2nd Year: 37,000/- per month (JRF)
 - b) 3rd to 5th Year: 42,000/- per month* (SRF)

5.2 Ph.D. Admission (Under Project Fellowship)

Scholars admitted under Project category are eligible for an assistantship from Sponsored Research project under regulations of the respective Project agency (DST/SERB/CSIR/DRDO etc.,). The admission to this category is contingent upon the successful selection of the candidate for Project. On completion of project funding, institute will not support any assistantship.

Research Areas: Please refer to Annexure: B

5.3 Ph.D. admission [Fellowship from external funding agencies (Govt./Semi-Govt.)]

Fellowship as per the norms of the respective external funding agency such as DST-Inspire / CSIR-UGC-JRF etc.,

6. APPLICATION PROCEDURE:

Interested and eligible candidates shall submit an online application using the portal available on the Institute website (www.iiitk.ac.in). Enclosures such as GATE score card/ CSIR UGC-JRF, Educational and Experience certificates, online fee payment receipt, No Objection Certificate (NOC) and sponsorship/undertaking certificate in support of application are to be uploaded as separate documents (pdf), along with the application form. In case, NOC and Undertaking Certificate is not enclosed at the time of online submission, a duly-signed self-declaration form should be uploaded by the candidate stating that NOC and Undertaking Certificate will be submitted at the time of interview. After filling the form, applicants are advised to take a printout of their application and keep the same for future 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 details are as follows.

Payment link: https://forms.eduqfix.com/phdiiitdmk/add

^{*}Upgradation from JRF to SRF is based on the assessment and recommendations of the Doctoral Committee.

Note: It is instructed to keep one copy of payment proof for future reference.

- 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/SSC 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 CSIR UGC-JRF/NET/ DAE-JEST/Inspire fellowship or any other fellowship awarded.
- e) Copy of proof of Experience certificate, if any.
- f) Copy of No Objection (Annexure D) and Sponsorship certificate (Annexure E), if any.

7. SELECTION PROCEDURE

- a) Eligible candidates possessing the minimum educational qualifications and satisfying additional criteria set by the institute from time to time only will be called for the written test and/or Interview.
- b) Based on the academic record and the performance of the candidates in the written test and/or Interview test based on GATE 2024 syllabus, the selection committee will finalize the names of candidates for admission to the Ph.D. programme.

8. RESERVATION OF SEATS:

Reservations are applicable as per the rules and regulation of the Govt. of India. 5% relaxation for the educational qualification for SC/ST candidates will be applicable.

Note: Rules and Regulations for the PhD programs (Ph.D. Full time / Part Time) are available in the belowlink: https://iiitk.ac.in/Ph.D.-Admission/page

9. FEE STRUCTURE:

- a) The Fee structure for the Ph. D. programme is given in Annexure 'C'.
- b) No TA/DA will be paid for attending written exam and/or Interview for Ph.D. admission.

10. SUBMISSION OF PROVISIONAL CERTIFICATE / GRADE SHEET / ORIGINAL DEGREE FOR VERIFICATION.

Candidates joining Ph.D. programme in July 2024 semester must submit their original mark/grade sheets along with provisional certificates at the time of admission for verification.

IMPORTANT DATES

| Web notification of the PhD Advertisement | 18/04/2024 |
|---|----------------------------|
| Online application registration process start date | 18/04/2024 |
| Last date for the submission of online Application form | 15/05/2024 |
| Web notification of the short-listed candidates for written test and/or Interview | 22/05/2024 |
| Dates of written test and/or interview (for short-listed candidates) | 05/06/2024 & 06/06/2024 |
| Announcement of Results | 11/06/2024 |
| Last date for the seat confirmation, fee payment for the first Semester by the selected Candidates. | 18/06/2024 |
| Reporting to the Institute and Commencement of the Academic Session | 01/07/2024 |

For Any queries, the applicants can send a mail to: phdadmissions@iiitk.ac.in/can call to 08518-289-121

Tentative Broad Research Areas

(Under Institution Fellowship/Part-time/Self-finance category)

| Department | Institute fellowship | Part-Time | Self-finance | | | |
|---------------------------|---|--|--|--|--|--|
| CSE | Databases, Data Mining, Artificial Intelligence, Machine Learning, Networking, Cloud Computing, Wireless Networks, IoT, Edge Computing, Big Data Computing, Cryptology, Post-Quantum Cryptography, Blockchain, Bioinformatics, Computer Vision, Game Theory and other allied areas. | | | | | |
| ECE | Communications, VLSI, Embedded Systems, Digital Signal Processing, Instrumentation, Antennas, Power Electronics, Photonics, and other related areas of Electronics and Communication Engineering | | | | | |
| ME | Thermal, Manufacturing and Design. | | | | | |
| Sciences (Mathematics) | Mathematical Control Theory, Numerical Analysis, Differential Equations and Algebra. | Mathematical Control Theory, Numerical Analysis, Differential Equations and Algebra. | Numerical Analysis and Differentia Equations. | | | |

Tentative Broad Research Areas: (Under Visvesvaraya Fellowship)

| Department | Full-Time and Part-Time |
|----------------------------------|---|
| CSE | Data Mining, Machine Learning, Cryptology, Computer Vision, Artificial Intelligence, NLP, Network. |
| ECE | C2S (Semiconductors), Communications, VLSI, Embedded Systems, Digital Signal Processing, Instrumentation, Antennas, Power Electronics, Photonics, and other related areas of Electronics and Communication Engineering |
| ME | Robotics, Thermal Management of Electronics and Industry 4.0 |
| Sciences (Physics & Mathematics) | C2S (Semiconductors), Material Technology, Quantum Computing, Artificial Intelligence, Computational materials science applied to electronics device modelling, Spintronics, Topological spin textures for Information Technology, AI based FBG sensors Array for Structural Health Monitoring, |

Research Areas

(Under Sponsored Project Fellowship)

| Department | Name of the Project | Project Duration | Broad Research Areas |
|------------|---|-------------------------------------|--|
| CSE | Development of Secured Voice based AI-enabled Digital Payment Application for Indian Regional Languages | 2 years w.e.f. 11.03.2024 | Natural Language Processing, Artificial Intelligence |
| CGE | Characterization of air pollution and Meteorological parameters at high temporal granularity using AI Technologies for Andhra Pradesh | 2 Years (Stipend only for 7 months) | Artificial Intelligence |
| ECE | C2S Project, MeitY | 4 Years | VLSI, Computer Architecture, DSP, Embedded Systems, Digital IC Design, analog IC Design, Signal Integnty and Power Integnty. |
| Mechanical | Development of Intelligent Crop Management system for recognising and supplementing the Crop Helathiness - ICroMaS | 3 years | Machine Learning, Artificial Intelligence, Image Processing |
| Sciences | Study of finite size effects on the Skyrmions in magnetic nanowires for utilization in low energy consumption Spintronic Devices (SERB, Govt. of India File No. CRG/2023/004781) | 3 Years | Experimental Condensed Matter Physics, Magnetism, Magnetic Nanoparticles, Skyrmions |
| (Physics) | E Waste to Wealth: Development of Eco-Designed Fibre based Photocathodes to construct Hybrid PV- PEC Devices for hydrogen Fuel and Electrical power generation (SERB, Govt of India File No. CRG/2023/006694) | 3 Years | Experimental Condensed Matter Physics, Solar Energy, Nano Materials for Energy |

FEES PARTICULARS

Ph.D. Fee Structure for the AY 2024-25 (Semester Wise)

| | Tuition Fee (in Rs) | Semester Wise | | | |
|-------------|--|---------------|----------|--|--|
| | Tuttion I ee (in 163) | Open & OBC | SC & ST | | |
| 1 Tu | ition Fee | 30,000 | 0 | | |
| | otal (1) | 30,000 | 0 | | |
| 2 | Other | | | | |
| a) | <u>'</u> | 1,200 | 1,200 | | |
| <u>b</u> |) Library Fee | 1,000 | 1,000 | | |
| c) | Contingency Fee | 2,750 | 2,750 | | |
| ď |) Examination Fee | 1,000 | 1,000 | | |
| e) | Medical Insurance & PHC | 2,000 | 2000 | | |
| f) | Sports Fee | 2,250 | 2,250 | | |
| | Γotal (2) | 10,200 | 10,200 | | |
| 3 | One Tir | ne Fee | | | |
| a) | Admission Fee (Registration Fee, Certificate Fee, ID card Fee, Convocation Fee, Alumni Association Fee) | 5,000 | 5,000 | | |
| [b] | Caution Money (Refundable)* | 2,000 | 2,000 | | |
| c) | Institute Development Fee | 2,000 | 2,000 | | |
| | Total (3) | 9,000 | 9,000 | | |
| 4 | Hoste | l Fee | | | |
| a) | Hostel Admission Fee | 1,000 | 1,000 | | |
| b) | Hostel Seat rent | 3,500 | 3,500 | | |
| c) | Hostel Maintenance Charges | 9,500 | 9,500 | | |
| d) | Hostel Development Fee | 1,500 | 1500 | | |
| e) | Dining Charges -Advance^ | 25,200 | 25,200 | | |
| | Total (4) | 40,700 | 40,700 | | |
| | Grand Total (1 + 2 + 3 +4): | 89,900/ | 59,900/- | | |

Note:

- 1. # Other fees may vary from time to time Semester Wise.
- 2. * Caution Money is refundable at the time of leaving the institute after deducting dues, if any.
- 3. ^ Dining Charges -Advance, is subjected to change depending on the Mess contract.

Annexure-D

NO OBJECTION CERTIFICATE FROM THE EMPLOYER

| The application from Mr. /Ms | | | | | | |
|-----------------------------------|-----------------------|-------------------|--------------------|-------------------|--|--|
| in | | since | | ., is here with | | |
| recommended and forwarded to | pursue Ph.D. programm | e under Part-time | registration schem | e in July 2024 at | | |
| Indian Institute of Information T | echnology Design and | Manufacturing | Kurnool in the | Department of | | |
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| | | | | | | |
| Date: | | Signature | of the Officer wi | th | | |
| | | Name and | d address of the O | rganization | | |
| | | | | | | |
| | | | | | | |

Office Seal

Sponsorship / Undertaking Certificate

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

| The | application | £ | May /May | | | | | |
|---------------|---|-----------------|---------------|--------------|--------------|---------------|--------------|-------|
| | application | | | | | | | • |
| | for admission | | | | | | | |
| | | | _ | | _ | | _ | |
| | ring Kurnool. | de | maian mo | 01 | | . Teemieregy | Design | unu |
| Certified t | hat: | | | | | | | |
| _ | ganization has ade elected, these wil | - | | | | • | | nd if |
| details of re | olicant will be dep esidential requiren ebsite: https://iiitk. | nents are avail | able under RI | P 3.4 of Par | _ | | | • |
| | s will be made aw nt and to attend th | | • | | - | | vise the wor | rk of |
| another uni | e completion of he it or place which n | nay impede his | s/her work un | der the sch | eme. If such | • | | |
| applying f | of the work carrie for a Patent with ring Kurnool | | | _ | - | | | |
|] | Date: | | | | Signature | of the Sponso | ring Autho | ority |
| | | | | | | Name ai | nd Designa | ıtion |
| | | | | | | | | |

Seal of the organization/Institution