

#### **About the Electronics and Communication Engineering department:**

The department of Electronics and Communication Engineering is pioneering in engineering education by incorporating the fields like Design and Manufacturing concepts as a unique in its nature. The Institute promotes the multidisciplinary teaching of engineering courses by incorporating the subjects like Product Design and practice, Design, Manufacturing and Prototyping, Projects along with internships in all the programs of the department.

For more detail, visit dept. page: https://iiitk.ac.in/Electronics-and-Communication-Engineering/page

#### **Eligibility Criteria for Full-Time Ph.D.:**

#### **Applicants holding Master's degree:**

- Minimum Education Qualifications: Applicants with a postgraduate degree (M. Tech. / M.E. / M.Sc. /M.S. (Research) or equivalent) in a relevant branch/specialization from any institute with a CGPA of 6.5/10 or 60% for UR/OBC/EWS category and CGPA of 6.0/10 or 55 % for SC/ST/PwD category.
- Screening and Selection: Entrance Test\* and/or Interview. (\* based on the number of applications received)

### Direct admission to PhD with Graduation (B.E. / B. Tech. /B.S.):

**Minimum Education Qualifications:** 

- Applicants with a Bachelor's degree (B. Tech. / B.E. / B.S. or equivalent) in a relevant branch/specialization from any CFTI with a CGPA of 7.5/10 or 70% for UR/OBC/EWS category and CGPA of 7.0/10 or 65 % for SC/ST/PwD category. (GATE Qualification is not Mandatory)
- Applicants with a Bachelor's degree (B. Tech. / B.E. / B.S. or equivalent) in a relevant branch/specialization from any **non-CFTI** with a CGPA of 7.5/10 or 70% for UR/OBC/EWS category and CGPA of 7.0/10 or 65% for SC/ST/PwD category. (**GATE Qualification is Mandatory**)
- Screening and Selection: Entrance Test\* and/or Interview. (\* based on the number of applications received)
- In cases where the candidates are directly admitted to the PhD programme in Engineering /Sciences with a Bachelor's Degree in Engineering/Technology, the scholar should successfully complete prescribed courses (Coursework) with a minimum of 24 Credits.

#### **Eligibility Criteria for Part-Time Ph.D.:**

#### **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  $CGPA \ge 6.5$  (out of 10) in UG and PG· 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.

Essential experience: (Candidates should satisfy any one of the below-mentioned criteria)

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 PhD (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.

Permanent employees of IIITDM Kurnool, having at least 3 years of experience.

#### Age Criteria: (By the last date of apply for Ph.D.)

**Full-Time:** 30 Years and relaxation for OBC/SC/ST as per the GoI rules

**Part-Time:** Maximum 50 years for applicants from Industry and R&D Organizations: and maximum 35 for Academic institutions with R & D facilities.

#### Screening and Selection:

- a) Respective Departments will conduct the shortlisting and selection process.
- b) 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.
- c) An entrance examination shall be conducted for all the applicants (Full-Time and Part-Time) who does not have GATE or NET qualification.
- d) The syllabus for the written test and/ or Interview is **GATE 2025 syllabus in respective** subject.
- e) Applicants with a valid GATE or CSIR/UGC-NET qualification will be directly eligible for the interview.
- f) The question paper for written exam will consist of 50 MCQ based on the GATE/NET syllabus.
- g) Each question will carry 2 marks, with a negative marking of 0.5 marks for every incorrect answer.
- h) The cut-off marks shall be determined in line with the GATE 2025 standards.
- i) The exam will be conducted either in CBT (Moodle) mode or offline based on number of applications.
- j) Based on the academic record and the performance of the candidates in the written test and/or Interview test, the selection committee will finalize the applicants for admission to the Ph.D. programme.

### **Specializations:**

Name of the Department	Ph.D. Category	Broad Research Areas
ECE	HTRA (Full-Time)  Part - Time	VLSI Design, In-memory Computing, SNNs DNNs Hardware, Microelectronics, Embedded and IoT Systems, Cryptography Hardware Architectures, Embedded ML, AI, Deep learning, Sensor Design with MEMS, Computer architecture, DSP, Image processing, Analog VLSI, Mixed Signal IC Design, Formal Hardware Verification, VLSI, Embedded Systems, Cyber Physical Systems, Cryptography, IoT, Software Defined Radio, Biomedical Instrumentation, Electronic system design, Electronic materials, Biosensor, Biodegrable/Sustaiable for Electronics, Drone Data Processing, Industrial Automation Wireless Communication, 5G, Drones, Robotics, Visible light communication, Quantum communication, 6G communication, Navigation, Electromagnetics, Signal & Power integrity, Inverse Problems, RF and Microwave, Microelectronics, Semiconductor Device Modeling, Analog and digital IC design, Microelectronics, Optoelectronic Devices, Opto Semiconductor
		Instrumentation, Power quality, FPGA Based System Design,
		electronics, Electronic digitizers, Analog circuits, Analog and
ECE	Part - Time	Drone Data Processing, Industrial Automation Wirel Communication, 5G, Drones, Robotics, Visible licommunication, Quantum communication, 6G communication, Navigation, Electromagnetics, Signal & Power integrity, Investigation, Electromagnetics, Signal & Power integrity, Investigation, RF and Microwave, Microelectronics, Semiconduct Device Modeling, Analog and digital IC designation Microelectronics, Optoelectronic Devices, Opto Semiconduct Device Modeling, Digital Signal Processing, Power System Instrumentation, Power quality, FPGA Based System Designated Electronics, Speech & audio processing, Interface

## For Ph.D. admissions under Sponsored Project:

PI/Supervisor details	Title of the project	Broad Research Areas
Dr. Mohamed Asan Basiri	C2S project	Computer architecture, DSP, Image, processing, Analog VLSI, Mixed Signal IC Design, Formal Hardware Verification, VLSI, Embedded Systems, Cyber Physical Systems, Cryptography, IoT, Software Defined Radio

#### **Infrastructure and Research Facilities:**

The Department has established the following laboratories to meet all the requirements of the programs being offered. Every course is being taught in the classrooms and laboratory with concept-based experimentation along with theoretical concepts.

- VLSI and Digital Signal Processing Lab
- Embedded Systems -IoT Lab
- Electrical Drivers and Instrumentation Lab
- Drones Lab- Institutional Project
- 5G Usecase Laboratory- Institutional Project
- Microprocessor and Microcontroller Lab
- Antenna and Microwave Lab
- RF and Simulation Lab
- Communications Lab
- Analog Electronics Lab
- Digital Electronics Lab
- Electronic Manufacturing Lab

#### Convener/coordinator of Ph.D. admissions and contact details:

• Dr. S Subba Rao, Assistant Professor; 08518289-180 / ssr29@iiitk.ac.in

# **Important Dates:**

Web notification of the PhD Advertisement	26-11-2025
Online application registration process start date	26-11-2025
Last date for the submission of online Application form	10-12-2025
Notification of shortlisted candidates for Interview/Written Test	15-12-2025
Tentative dates for Interview/Written Test	22-23 <sup>rd</sup> Dec 2025
Publication of Final Results	26-12-2025
Last date for seat acceptance and fee payment:	29-12-2025
Reporting to the Institute	01-02 <sup>nd</sup> Jan 2026