



About IIIT Kottayam

Indian Institute of Information Technology (IIIT) Kottayam was established in 2015 with the major objective of setting up an education model that can produce best-in-class human resources in IT and harness the multidimensional facets of IT in various domains. It is one of the IIITs that have been established as "Institution of National Importance" by the Ministry of Education, Govt. of India, under the IIIT (PPP) Act 2017. IIIT Kottayam is expected to contribute significantly to global competitiveness through the key sectors of the Indian economy and Industry, focusing on applied research and education in IT and allied areas. IIIT Kottayam conducts academic programmes of B.Tech. in CSE, CSE with specialization in Cyber Security, CSE with specialization in AI & Data Science, ECE, M.Tech. in AI and Data Science, Cyber Security, Big Data and ML, Integrated M.tech in AI & Data Science and Ph.D. in various disciplines such as CSE, ECE, Mathematics, and allied areas.

Infrastructure of IIIT Kottayam

The institute is connected to National Knowledge Network (NKN) with a bandwidth of 1Gbps. The laboratories are equipped with various hardware and software required to carry out the research. Researchers have 24x7 access to the high performance computing facilities along with the campus-wide licensed Matlab Software package. IIIT Kottayam has become a research-driven organization where ten research groups are outfitted with cutting-edge tools and technology. Besides this, IIITK has signed a number of MoU with leading research organizations from India and abroad. In order to become one of the top academic institutions in the world, we plan to pursue research excellence, foster innovation, provide top-notch education to train the next generation of scientists and technologists, and use scientific and technological advancements for the development of India's economy and social welfare. Numerous organizations recognize many IIIT Kottayam students and researchers each year for their outstanding contributions to research. Institute is also subscribed to various E-resources including IEEE Xplore Digital Library along with IEEE CSDL, to enhance research and learning experience.



Ph.D. Admissions August 2024

Commencement of Classes: 24 July 2024

Application Timeline



- Application Portal Open: **12 April 2024**
- Application Deadline: ~~31 May 2024~~ **10 JUNE 2024**
- Written Test/Interview: **15- 23 June 2024**

Get in touch

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Eligibility Criteria



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IIIT KOTTAYAM

About the Programmes

IIIT Kottayam launched its doctoral programme to impart the knowledge, skills, and attitude to do world-class research in the area of computer science and its allied fields. Few Ph.D. Scholars have been awarded scholarships under various schemes from different funding agencies, like DST. Institute may provide teaching assistantships to eligible students as per prevailing norms. Our scholars are now collaborating with international universities to enhance their research works.

The faculties of the Engineering departments and Computational Science and Humanities department along with their research scholars, perform cutting-edge research in their respective domains and have resulted in highly acclaimed publications in reputed Journals and Conferences, as well as Patents in their respective domains. Our faculties also take industrial consultancy projects, apart from sponsored research projects and collaborative projects with Industry/Academia within India and abroad.

Research Areas

Computer Science and Engineering (CSE):

Artificial Intelligence (AI): Responsible AI, AI Security, Optimization algorithms; Machine Learning and Deep learning: Biomedical signals, Agriculture domain, anomaly detection in network layer/transport layer, Optimization algorithms, placement prediction; Computer Vision and Image Processing: Agriculture and medical domain, Speech, Image, Signal; Natural Language Processing, LLM; Data Analytics, Video analytics, Big Data Analysis, Social Network Analytics; Theoretical Computer Science; Algorithms and Graph Theory, Explainable AI (XAI) -healthcare; Distributed Computing; Edge computing; Cloud computing; Energy efficiency in computing paradigm; Emerging Databases; Bioinformatics and computational biology; Data Privacy and Security, Cyber security, Information security, ML in Cyber Security, Cloud data security, Quantum Computing and Security, Distributed computing security, Hardware security, ML for cyber security systems and memory; Soft Defined Network - security; Blockchain technology; Digital Forensics and Crime Investigation; Cryptography, Quantum cryptography, Applied cryptography, Post Quantum cryptography, Multi party computation, Differential privacy; Intelligent Transportation and Connected Vehicles, Digital Technologies for wildlife and nature conservation; Internet of Things; Communications and Signal Processing; Optimization in Systems Engineering; Remote Sensing Applications; Resource management and scheduling for future compute continuum; Detection and estimation problems in IRS-assisted communication and in spatial modulation, enhancing physical layer security using IRS.

Electronics and Communication Engineering (ECE):

Synthesis, Characterisation and Functionalization of Nano-materials, Optoelectronics, Quantum materials, 3-D Printing, Lasers, Ocean Optics, Spectroscopy, Free Space Optics, Optical Communication, Photonics, Instrumentation, Signal Processing, Image processing, Speech processing, Machine learning, Deep Learning, VLSI and Embedded Systems, VLSI, FPGA, VLSI Design & FPGA based system design, Material-Device-Circuit Co-design for Robust SRAM Cell, Advanced MOS Devices modeling and simulation, Steep Switching Devices, Digital Integrated Circuit Design, Reliable and Secure Circuits, Wireless Communication! Beyond 5G Wireless Communication Technologies, Wireless Sensor Networks, Wireless Communication Networks, IoT, Security and Privacy, UAVs, Cyber Physical Systems, Machine Learning enabled wireless communication systems, IoT, Communications and Signal Processing, Optimization in Systems Engineering, Remote Sensing Applications, Antennas for Biomedical Applications and Therapeutic Modalities of Cancer treatment, Design of 5G Rectenna systems for IoT based Indoor Smart Home Automation platforms, Detection and estimation problems in IRS-assisted communication and in spatial modulation, Enhancing physical layer security using IRS, Microstrip Antenna Design for MIMO 5G/6G and small satellite applications, RF and Microwave, Machine learning and neural networks for anomaly detection in computer network layer/transport layer, ANN/DNN-based solutions for problems involving biomedical signals, Healthcare monitoring systems, Wireless Sensor Systems

Computational Mathematics :

HR Analytics, Supply Chain Analytics, Fuzzy mathematics, Mathematical and Computational Finance, Fluid Mechanics, Bio Fluid Mechanics, Fluid Mechanics with Machine Learning, and Partial Differential Equations, Graph Theory

Admission Category

- SCHOLARSHIP HOLDERS
- SPONSORED
- SELF-FINANCING
- EXTERNAL REGISTRANTS

Collaborations



How to Apply

- Candidates can apply only through the online application portal, <https://phd.iiitkottayam.ac.in/>
- There is no provision for offline submission of application forms.
- If you are applying for more than one discipline, please submit a separate application for each discipline.
- Incomplete applications will be rejected.

Application Fee

General/OBC candidates: **Rs.1000/-**

SC/ST/PWD/Female candidates: **Rs 500/-**

to be paid through *State Bank Collect.*

