

Ph.D. Admission

January 2024



Closing Date: 30 November 2023



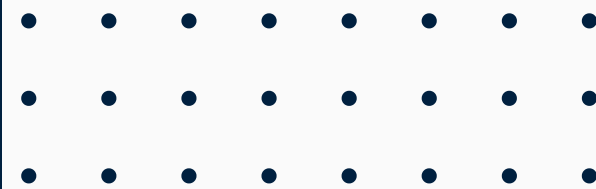
About IIT Kottayam

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 programs 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, and Ph.D. in various disciplines such as CSE, ECE, Mathematics, and allied areas.

Infrastructure of IIT 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. IIITK has become a research-driven organization. At IIITK, 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 IIITK 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.



About the Program

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.

Admission Category

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

Collaborations

IIIT Kottayam has signed MoU with various Industries/ Academia among them

- Taiwan-India Joint Research Center on Artificial Intelligence (“CCU AI Center”): Joint research projects on AI and related technologies, FDPs, etc.
- German Academy of Digital Education (DADB): Aims to facilitate AR/VR immersive blended learning programs for training on 5G and advanced wireless communication skills.
- Microsoft: Domains of Agriculture, climate change.
- University of New Brunswick, Canada: Staff exchange, Student exchange programs, Study abroad programs, etc.
- University of Edmonton, Alberta, Canada
- University of Agder, Norway: Joint degree/twinning Programmes and Research.
- Universiti Teknologi Brunei
- University of Edmonton, Alberta, Canada: Cyber Security research.
- ADAM, Japan: Academic Collaborations, Student exchange, Start-up exchange.

Industry Tie-ups with

IBM TCS UST Global NeST Digital

Collaborations with other agencies

- National Forensic Science University, Gujarat: Academic / Research Collaboration
- National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore: Collaborative research on Brain-Computer Research
- Kerala Police Cyberdome: Cybersecurity / IoT / AI Research and Consultancy work
- Vaidyaratnam
- Rubber Research Institute of India, Kottayam: Collaborative Research work
- Manorama Horizon Online Certification Programs: Certification programs and consultancy work
- MathLab Research

Research Areas

› Computer Science and Engineering (CSE):

Theoretical Computer Science, Cloud Data Security, Attack Analysis using ML/DL, Health Informatics, NLP, IDS using ML/DL, Memory Data Security, Computer Vision, IoT, Authentication protocol: Design and Analysis, Hardware Security, Attack Detection, Analysis & Mitigation using ML/ DL, Cryptography, Applied Cryptography, Information Privacy and Security, Smart Home Automation Security, Network Vulnerability Detection and Intrusion Prevention, Digital Forensics and Crime Investigation, Security and Privacy in IoT, Machine Learning, Deep Learning, AI in Agriculture, AI in IT Operations, Convergence of Machine Learning Blockchain and IoT, Evolutionary Algorithms and their applications in ML/AI domains, Machine Learning / Deep Learning for Social Good, Medical Imaging, Underwater Imaging, Responsible AI, Explainable AI, Data Science, Data Analytics, Data Mining, Optimization Algorithms, Supply Chain Optimization, Bioinformatics, Intelligent Transportation, Graph Learning, Distributed Computing, Federated Learning, Fog/Edge Computing, Next Generation Wireless Networks, FPGA Designs.

› Electronics and Communication Engineering (ECE):

Signal Processing, Image Processing, Speech Processing, Machine Learning, Artificial Intelligence, Deep Learning, Materials Engineering, Nanoelectronics, RF and Microwave Antenna Design, Instrumentation, Vibration Engineering, VLSI Design, Laser Additive Manufacturing, Optoelectronics, Wireless Communications, Wireless Sensor Networks, Ocean Optics.

› Computational Mathematics

Deep learning Algorithms to Differential equations, Evolutionary algorithms and their applications in ML/AI domains, Mathematical & Computational Finance, Artificial Neural Network (ANN), Approximation Methods for Partial Differential Equations (PDE), Fluid Mechanics, Bio-Fluid Mechanics (CFD), Applied Cryptography.

Admission Fee Details

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

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

to be paid through *State Bank Collect.*

Eligibility Criteria

For details visit:

https://www.iiitkottayam.ac.in/#!/phd_home

How to Apply

- Candidates can apply only through the online application portal.
<https://phdr.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 Timeline

Application Portal opens: 23 October 2023

Commencement of classes: 04 January 2024

