Indian Institute of Technology Palakkad
Palakkad 678 557

IIT PALAKKAD

Admission Brochure
B.Tech. Programme - 2018 batch

About the Institute

The Indian Institute of Technology Palakkad (IIT Palakkad) is established in 2015 as an institute of national importance by the Government of India under the Institutes of Technology Act, 1961. The institute is dedicated to creating an environment wherein students and faculty, while engaged in their pursuit of knowledge, can dream, think and innovate to become a change agent for a betterworld.

IIT Palakkad is currently functioning from a temporary campus of Ahalia Health Heritage and Knowledge Village in Kozhipara locality which is about 25 km from the Palakkad railway station and 45 km from Coimbatore airport. The nearest local train station is Kanjikode, located about 10 km from the Ahalia campus. This campus has fully functional academic setting including well-equipped laboratories, class rooms and computing facilities, modern hostels for girls and boys, and sports and fitness amenities.

Beside this, a vibrant transit campus with world-class sustainable green buildings is fast coming up on 500 acres land bordering the Sahya Mountain range adjacent to the Coimbatore-Kanyakumari National Highway. It is expected that the first phase of construction will be completed by July 2018 and part of the institute academic activities in the next session are expected to commence there.

Faculty

IIT Palakkad already has over 50 well qualified and energetic, young and experienced faculty members in position to provide a high quality academic experience. The faculty strength is expected to double shortly. In addition to the faculty commitment towards 'Teaching-Learning' process, the research students are assigned duties of teaching assistance whereby they complement the faculty members in effective conduct of regular tutorial and laboratory classes. In addition, the faculty and Teaching Assistants provide additional interactive sessions to the academically weak students wherever required.

Chemistry

Prof K L Sebastian, *PhD (IISc Bangalore)*

Prof K V Govindan Kutty, *PhD (IIT Madras)*

Dr Debarati Chatterjee, *PhD (IISc Bangalore)*

Dr Dinesh Jagadeesan, *PhD (JNCASR, Bangalore)*

Dr Mintu Porel, *PhD (University of Miami, USA)*

Dr Padmesh A, *PhD (Institute of Fundamental Sciences, New Zealand)*

Civil Engineering

Dr. Anil Kumar M V, *PhD (IIT Madras)*

Dr Athira P, *PhD (IIT Madras)*

Dr B K Bhavathrathan, *PhD (IIT Bombay)*

Dr Divya P V , *PhD (IIT Bombay)*

Dr Madhu Karthik M, *PhD (Texas A&M University, USA)*

Dr Praveena Gangadharan, *PhD (IIT Madras)*

Dr Subhasis Mitra, *PhD (Auburn University, USA)*

Dr Sudheesh T K, *PhD (The University of Florida, USA)*

Dr Sunitha K Nayar, *PhD (IIT Madras)*

Computer Science And Engineering

Dr Albert Sunny, *Phd (IISc Bangalore)*

Dr Deepak Rajendraprasad, *PhD (IISc Bangalore)*

Dr Jasine Babu, *PhD (IISc Bangalore)*

Dr Mrinal Kanti Das, *PhD (IISc Bangalore)*

Dr Piyush P Kurur, *PhD (IMS Chennai)*

Dr Sahely Bhadra, *PhD (IISc Bangalore)*

Dr. Vivek Chaturvedi, *PhD (Florida International University, USA)*

Electrical Engineering

Prof Vinod A Prasad, *PhD (NTU Singapore)*

Dr Arun Rahul S, *PhD (IISc Bangalore)*

Dr Arvind Ajoy, *PhD (IIT Madras)*

Dr Lakshmi Narasimhan T, *PhD (IISc Bangalore)*

Dr. Mahesh R Panicker, *PhD (NTU, Singapore)*

Dr Revathy P, *PhD (IISc Bangalore)*

Dr. Sukomal Dey, *PhD (IIT Delhi)*

Dr Swaroop Sahoo, *PhD (Colorado State University, USA)*

Humanities And Social Sciences

Dr Anoop George, *PhD (IIT Bombay)*

Dr Santhosh Abraham, *PhD (University of Hyderabad)*

Dr Shalina Susan Mathew, *PhD (University of Hyderabad)*

Mathematics

Dr Ashok Kumar M, *PhD (IISc Bangalore)*

Dr G P Balakumar, *PhD (IISc Bangalore)*

Dr Jayanarayanan C R, *PhD (ISI Bangalore)*

Dr Lakshmi Sankar K, *PhD (Mississippi State University, USA)*

Dr Sarath Sasi, *PhD (Mississippi State University, USA)*

Mechanical Engineering

Prof Job Kurian, *PhD (IIT Madras)*

Prof Pramod S Mehta, *PhD (Loughborough University, UK)*

Dr D Chakradhar, *PhD (NIT, Warangal)*

Dr D Kesavan, *PhD (IIT Madras)*

Dr K V N Surendra, *PhD (IISc Bangalore)*

Dr Kanmani S Subbu, *PhD (IIT Kanpur)*

Dr Krishna Sesha Giri, *PhD (IISc Bangalore)*

Dr Sunil Kumar Arolla, *PhD (Iowa State University, USA)*

Physics

Prof P B Sunil Kumar, *PhD (RRI, Bangalore)*

Dr Jayakumar Balakrishnan, *PhD (National University of Singapore)*

Dr Prithvi Nayaran P, *PhD (TIFR, Mumbai)*

Dr Uma Divakaran, *PhD (IIT Kanpur)*

Academic Programmes

IIT Palakkad offers a B Tech Programme in four major engineering streams viz. Civil Engineering, Computer Science and Engineering, Electrical Engineering and Mechanical Engineering. The total yearly intake is these streams were 120 students in first three batches, equally distributed in all four branches. From 2018 batch, the intake in Computer Science and Engineering and Electrical Engineering has been increased to 50 students each hence raising the total intake strength of undergraduate students to 160. In addition, there will be supernumerary seats for girl students as per government norms.

Every branch of the B Tech programme has a well-drawn 'Curriculum and Syllabi of Courses' duly approved by the Senate. The complete programme comprises of courses under different categories viz. Basic Science, Basic Engineering, Professional Major Theory, Humanities and Electives under Professional Major and General Categories. In addition, there are few courses of Interdisciplinary and general nature and a project work in the final year. All students are required to participate in Life Skills activities in the first few weeks and NSS/NSO in the first year of their entry.

The medium of instruction is English and so are the examination and project reports. Those who are not proficient in the English language are initially provided improvement classes.

Beside B Tech Programme, IIT Palakkad has also started research programme leading to MS/PhD degrees in all engineering disciplines and Physics, Chemistry, Mathematics and Humanities Sciences Where in 40 research students have been enrolled in last academic session.

Academic System

Like any other IITs, IIT Palakkad has a credit based semester system with continuous evaluation of student performance. The course registration in each semester, the teaching-learning activities in the class room and laboratories and academic assessment of each registered course at the end of the semester in terms of letter grades are the essential elements of the academic system. For each pass grade, the students accumulate the course credits as earned credits and his/her academic performance is indicated in terms of the number of credits earned and the weighted grade point average. A specified minimum number of credits should be acquired on semester or session basis in order to qualify for continuation in the academic programme and meeting the total credit requirements for the award of degree.

Academic system of IIT Palakkad has a grading policy based on continuous assessment. Grades are awarded on a 10 point scale denoted S, A, B, C, D, E and U, with E being the minimum grade to pass a subject. The respective credits are 10, 9, 8, 7, 6, 4 and 0. Academic performance is quantified by semester grade point average (SGPA) and cumulative grade point average (CGPA). The former is a weighted average of the grades of successfully completed course in a given semester, while the latter is a weighted average of the grades secured in all semesters.

IIT Palakkad allows students to change their branch based on their academic performance in the first semester. The change comes into effect at the end of their first year as per senate approved norms.

Scholarships and Financial Assistance

Merit-Cum-Means scholarships, Scholarships for SC/ST students and students with disability are available to the students of IIT Palakkad, as per the Government of India norms. There are also provisions for Institute free studentships. IIT Palakkad has signed an MOU with SBI, Kanjikode and eligible students can avail loans for Tuition fee under Vidyalakshmi educational loan scheme.

Academic Facilities

Class Rooms

There are several classrooms and an auditorium, all of which are equipped with state of the art multimedia facilities. Similar facilities are getting ready in the transit campus of the institute.

Library

IIT Palakkad has a central library with a barcode based book-borrow system. The institute has a well-equipped computer room where access to e-books and course materials is provided through Moodle. The computer room and library are accessible from 8AM till midnight on weekdays. The library has already procured over 3700 text/reference books and popular science/literature collections. Apart from text and reference books, the library has a collection of magazines and newspapers. There are e-resources of text books and series of technical journals.

Laboratories

All student laboratories are well established and functional with the latest equipment. In addition, there is an innovation center for students to transform their ideas into reality. There are as part of advanced facilities, a scanning tunneling microscope and a High Performance Computing facility are in operation since January 2017.

Applied Mechanics Laboratory

Applied Mechanics Laboratory houses facilities in the broad areas of Strength of Materials and Fluid Mechanics. On the Strength of Materials part there are experimental facilities to study deflection of beams, torsion and buckling. Strain gauge demonstration, a photo elastic set up for demonstrating the stress patterns in loaded transparent models and a Universal Testing Machine (UTM) of loading capacity up to 5.0 kN are also available. On the Fluid Mechanics part, there are tabletop facilities for demonstrating fundamentals of Fluid Mechanics. These include set ups for pressure gauge calibration, friction losses in pipes and fittings, demonstration of Bernoulli's principle, visualization of forced vortices and incompressible fluid flow.

Surveying Laboratory

The laboatory is used for the Surveying practical course where in students get hands-on training on the use of a variety of surveying instruments and measurement techniques. The practical sessions include linear measurements using chain and tape, angular measurements and traversing using compass and theodolite, elevation measurement using traditional (Dumpy) and automatic levels and the plane tabling methods. The use of modern instruments such as total stations and GPS is demonstrated as well. The list of instruments includes GPS, Total stations, Vernier theodolites, Automatic levels, Dumpy levels, Prismatic compasses, Sets of plane table accessories (drawing board, alidade, trough compass, plumbing fork) and chain survey equipment (metric chain, tape, ranging rod, offset rod, optical square, cross-staff, arrow, peg, etc.).

Electronics Laboratory

The Electronics Technology Laboratory provides an integrated environment for students to understand the working of analog and digital circuits, microprocessors, microcontrollers, and the interplay between computational tools and electronics hardware. Each desk is equipped with digital storage oscilloscopes, arbitrary waveform generators, power supplies and various prototyping boards (Field Programmable Gate Arrays, Microcontrollers, etc.) and a desktop PC. In addition, it houses set-ups for control experiments. Digital Electronics, Analog Electronics, Computer Aided Design and Control Systems lab courses can be run in this laboratory.

Mechanical Engineering Laboratory

Mechanical Engineering Department has well equipped laboratory for instructions in internal combustion engine, heat transfer, applied fluid mechanics, traditional and non-traditional machining, materials characterization, measurements and metrology, fatigue and fracture mechanics.

The various equipments for laboratory instructions available in the laboratory include Computerised IC engine setup with eddy current dynamometer, Counter and parallel flow heat exchanger apparatus, Pelton wheel and Francis turbine, universal milling machine, high precision lathe, wire EDM, metrology kits, materials characterization and testing facilities such as hardness tester, optical microscopy, tensile tester, fatigue and contact fatigue testing machines.

Computer Science Laboratory

IIT Palakkad has a Computer Science Laboratory with 35 All-In-One Desktops that run GNU/Linux. A team of students take an active role in managing this lab. The lab is equipped with all the necessary software required to run all the undergraduate CS Labs like Programming, Operating Systems, Compilers, Databases and Networks.

Workshop Facility

Workshop is an integral part of the curriculum and has four components viz Electrical, Electronics, Instrumentation and Machining. In the last part, students are introduced to sheet metal work, moulding and foundry practices. A unique and modern transit machine shop with lathes, hydraulics machinery, drilling machinery, etc. is set up in a container adjacent to the main building.

Central Facilities

Central Computing Centre

IIT Palakkad has a state-of-the art Computing Centre with 70 All-In-One Desktops that works round the clock. It is fuelled by a 1Gbps internet connection. The machines are equipped with industrial standard simulation and design software. A single account enables the students to carry out their work from any common machine in the institute. A learning management system called Moodle is used by most teachers at IIT Palakkad to create a personalised learning environment for their courses. The same is hosted and managed by the Computing Centre.


Innovation Laboratory

The Innovation Lab is a student run hobby-lab that allows students to translate their ideas into prototypes and products. Such a facility holds immense potential in pushing forward the 'Make- in-India' initiative of the Govt. of India. It has latest equipment such as a dual-head 3D printer, a CNC router, a CNC milling machine and a CNC lathe. These machines will enable the precise fabrication of prototypes in plastic, wood and soft metals such as aluminum.

Advanced Laboratory Instruments

Apart from the teaching laboratories, certain facilities at the student level have been created. The primary aim is to introduce the students to sophisticated instruments at an early stage. Such an initiative may also motivate students towards research and development. As a part of this initiative, a Scanning Tunneling Microscope has been procured and is in operation since December 2016. Another interesting equipment being considered is cloud chamber.

High Performance Computing Facility
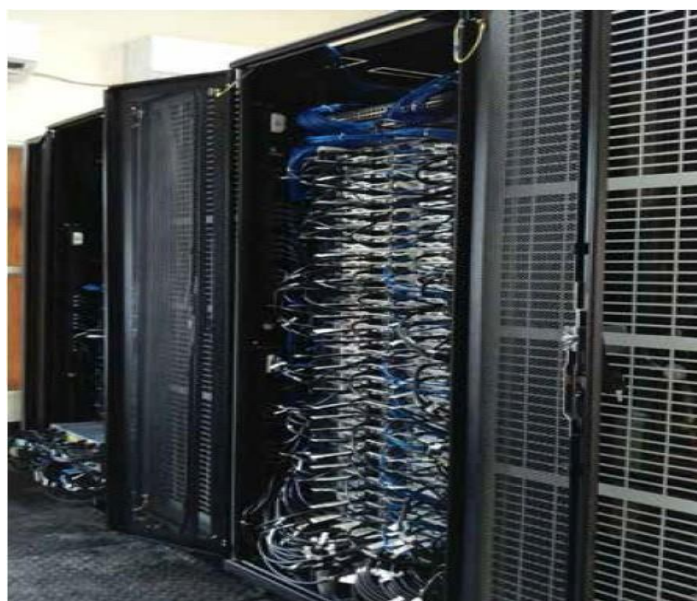
A High performance computing cluster (HPC) that will provide a powerful computing platform for research in engineering and physical sciences is being installed. The system is expected to be operational by the beginning of July 2017. The HPC consists of 64 compute nodes, each having a dual 12-core Intel processor running at 2.2 GHz with 4 GB of RAM per core. The HPC will also be one of the first systems in India to use a 100 Gbps high-speed Omni Path interconnect from Intel.

The HPC will be used by faculty, research staff and students at IIT Palakkad to investigate complex research problems in science and engineering. The HPC will enable researchers at IIT Palakkad to undertake computer simulation based consultancy projects for various industries in the aerospace, semiconductor, biotechnology, civil, mechanical and other sectors.

Hostels

IIT Palakkad is fully residential with hostels for girls and boys. Students are provided accommodation on twin-sharing basis. Almost all the rooms in the institute temporary premises at Ahalia campus are bath attached. The hostel buildings and the academic building are situated within a radius of three hundred meters. The hostels have a spacious dining hall and a well-equipped recreational area, an indoor games area and a fitness center. The institute and the common space in the hostel are WiFi enabled. Other amenities provided include a Reverse Osmosis based drinking water system and a heavy-duty washing machine in each floor of the hostels.

Sports and other amenities

In house facilities exist for playing football, volleyball, basketball and table tennis. There are professional coaches for athletics, football, volleyball and cricket. Students can also get training at a professional badminton center, 4GB badminton academy, at Palakkad.

There is a Canara bank branch situated about 100 yards from the Academic building. Several ATMs are available within the Ahalia campus, including an SBI ATM situated within the Academic building.

Career Development Center

The institute has established a Career Development Center (CDC) to cater for training/Internship and placement opportunities for the students. The center is functional under a Professor In- Charge and the Training Placement Officer. These functionaries work in conjunction with faculty and student coordinators from each stream. The placement Induction programme and training sessions are contemplated from this year for the first batch of final year students. In last two summers, the Institute placed almost all students for their internships in premier academic Institutes like IITs, IISc and Universities abroad. Institute invited high profile industries to recruit students for internship placement this year. A total of 37 industries participated, and 48 industrial internship offers were made across the four streams. In addition, 21 industrial internships were assisted offline. The students of IIT Palakkad proved

their merit through their performance. Notable internship recruiters included GE, Daimler, TCS, Daikin, Timken, Titan, etc and even offered students with attractive stipends. The institute ties with premier Industries and Institutions in India and abroad are getting stronger. Recently, the Institute has signed MoU with Auckland University of Technology, New Zealand for study semester abroad for our students.

Student wellness

All students are covered by a comprehensive medical insurance scheme for a nominal yearly subscription. Inpatient and outpatient hospital services are available in the campus. IIT Palakkad has MoU with several hospitals in Palakkad including the hospitals in the Ahalia Campus and the nearby Athani Hospital, Palakkad for cash-less medical care. The medical facilities at the Ahalia foundation hospitals located within the temporary campus are accessible for emergency treatments.

A professional counseling service has been in place to provide professional help to students when they experience social / emotional issues. A resident counselor is available in the hostel to work in proximity to the students. This is in addition to the anonymous online counseling for which the institute has tie up with a professional agency.

Anti-Ragging Policy

Institute takes matters of ragging seriously and it is a punishable offence and banned. Ragging incidences will be reported to the local police station and action will be taken as per the law prevailing in the State. The punishment may include expulsion from the institute.

Administration

Prof P B Sunil Kumar	Director
Prof Job Kurian	Dean Administration
Prof Pramod S Mehta	Dean Academics
Prof K L Sebastian	Dean Research & Development
Prof K V G Kutty	Dean Student Affairs
Prof Vinod A Prasad	Dean Industry Relations and Sponsored Research

Institute Address:

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Contact person:
Hostel Matters:
Mr Simon Samuel
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How to reach IIT Palakkad

The Temporary campus of IIT Palakkad is located in the Ahalia health, heritage and knowledge village campus, Kozhipara, Palakkad. The Ahalia campus is spread over a wide area; IIT Palakkad is situated about 2 km from the Ahalia campus entrance. Sign boards have been placed at suitable points within the campus to provide easy guidance.
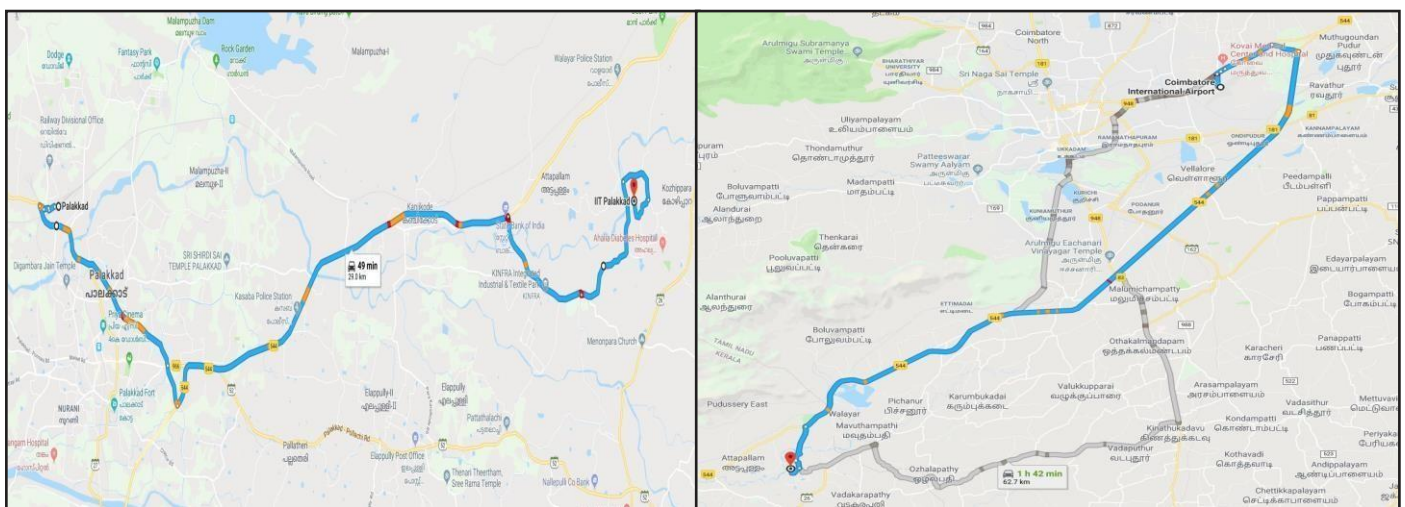
| Palakkad | Coimbatore |

Connectivity

By Air

The closest major airport is at Coimbatore and is located about 45 km from the Ahalia campus. PrePaid taxis can be hired to reach Ahalia campus.

By Train

The easiest way to reach Palakkad, the nearest town, is by train. Palakkad Junction is well connected to almost all parts of India. Travelling by train to Palakkad junction is also the most economical way of reaching IIT Palakkad. The Ahalia campus is about 20 km from Palakkad Junction. It is convenient to hire a taxi or take a pre-paid auto from Palakkad Junction to reach the Ahalia campus.

By Road

The nearest bus stand is the Palakkad Municipal Bus Stand, at Palakkad. It is well connected to major cities in Kerala and Tamil Nadu by highways. The Ahalia campus is about 25 km from the bus stand and taxis can be hired to reach the Ahalia campus. The nearest bus stand is the Palakkad Municipal Bus Stand, at Palakkad. It is well connected to major cities in Kerala and Tamil Nadu by Highways. Ahalia campus is about 25 km from the bus stand and taxis can be hired to reach Ahalia campus.

Orientation Programme

There ought to be something more in all round education than mere cognitive intelligence which includes behavior, character, compassion, physical and mental well-being, life force, professionalism etc. Hence to prepare the students for smooth transition from school education to professional education, a two-week long Orientation Programme has been planned. This programme helps students adapt to the new environment and understand various Life Skills needed for their personality growth, before the academic rigor begins. During this programme, a variety of student centric activities including talks and lectures by eminent people, remedial courses for language, life skills program, out bound training, cultural and sports events are scheduled. This programme is mandatory to be attended by all students admitted in the institute Its successful completion is accessed based on the periodic feed-back and the regularity in attendance. The formal class room teaching commences only after conclusion of this Orientation programme.

The timetable and the academic calendar will be available at the IIT Palakkad website.