





COLLEGE OF ENGINEERING CHITTILAPPILLY, THRISSUR- 680 551

Institution Code: IES



IES College of Engineering (IESCE), the flagship institution of IES Education City, is conceived and developed as a hi-tech technical training institution, with state of the art facilities, conforming to the specifications of All India Council of Technical Education (AICTE), New Delhi and APJ Abdul Kalam Technological University. The Principal, Dr. S Brilly Sangeetha, leads a team of highly qualified and dedicated HODs and faculty members.

The strength of IES, can be attributed to more than 2000 students, pursuing their dream of meritorious education. It also has a sound infrastructural system, comprising of a fleet of 50 buses and separate hostels for boys and girls, with modern amenities. The College is governed by the Board of Directors, who bring to the table more than 40 years of experience, in running educational institutions in the International arena.



Dr. S Brilly Sangeetha Principal (PhD in CSE, M.E in CSE)

Dr. S. Brilly Sangeetha, has 15 years of experience in teaching and 4 years in research. Her area of research, is adhoc networks and security. A successful professional, who trusts in Student Centered Learning, for the development of the academic, technical and inter-personal skills of the students. She is an active member of ISTE (The Indian Society For Technical Education) IEEE, CSI (Computer Society of India), IACSIT (International Association of Computer Science and Information Technology), IE (The Institution of Engineers), IAENG (International Association of Engineers), The Society of Digital Information and Wireless communications (SDIWC), Internet Society, Computer Science Teachers Association (CSTA), Universal Association of Computer and Electronics Engineers (UACEE) and International society of Multiple Criteria Decision Making (MCDM).

She has published more than 25 international journals and her passion for writing has made her author technical books, too. She is also a CISCO certified Network Associate, and has organized many Seminars, Workshops and Conferences. She has also received prestigious awards, for her inspirational work.

Dr. M I Thamban
Academic Director
B.Sc(Engg), M.Tech(Foundry Engg),
PhD(IIT Chennai)

Dr. M I Thamban, has always been in the forefront of promoting technical education. After a long stint of 33 years, in MA College of Engineering, he retired as Professor in 2000.

He was the driving force, in the grooming of many engineering colleges in the government and self financing sector, from their inception period. He has served as Principal in engineering colleges, affliated to Kannur, Cochin, MG and Kerala Universities.

UNDER THE

IES PILLARS

OF LEARNING



VISION

IES College of Engineering, strives to be an institution of repute, to create competent engineering professionals, endowed with innovation skills and entrepreneurial attitude, for nation building.

MISSION

- M1. To achieve recognition from statutory bodies, and become one of the top ranking institutions, in the country.
- M2 . To provide technological, communication, aptitude and life skill training, to enable the students, to become successful professionals.
- M3. To promote innovation, by encouraging students to initiate design and product development activities.
- M4. To inculcate entrepreneurial attitude, by providing necessary mentoring, training and guidance, for students, to establish start ups.

VANTAGE IES

- Advanced Technological Laboratories
- Top University Ranks
- Placements in Top MNC's
- MHRD Innovation cell
- MOU with KELTRON
- Transport Fleet with wide network
- IEDC nurturing entrepreneurship
- Two storeyed Central Library
- Six Department Libraries

- **EEE International Professional Association**
- Manufacturing HUBs in Campus
- Robotic Hub plus IOT
- Campus Recruitment Training
- National & International Conferences
- R&D Wing
- Industrial Interactions
- Spectacular Infrastructure
- MOU with Smart Moves

ENGINEERING

- Excellent Sports Facilities
- Onsite Corporate Internships
- Women Development Cell
- Anti Ragging Cell
- Entrepreneurship Development Club
- National Service Scheme

- British Council Certification Courses

COURSES OFFERED

B.TECH (4 years / 8 semesters)

- Civil Engineering
- Computer Science & Engineering
- F Electronics & Communication Engineering
- Electrical & Electronics Engineering
- Mechanical Engineering

M.TECH (2 years / 4 semesters)

- Geotechnical Engineering
- Computer Science & Engineering
- VLSI Design

VALUE ADDED COURSES

- LINUX REDHAT, CCNA Networking: Enables students to get details about Networking, Embedded System Technology.
- TOTAL STATION, STAAD PRO: Lays the foundation for Structural Designing in Civil Engineering.
- ANSYS, Mi Power: A complete tool for Power and Communication System.
- PLC, SCADA, AUTOCAD, MATLAB, XILINX, CADENCE, LABVIEW EDWINXP: Excellent Training in Mechanical Electrical Plumbing.





IESCE Training and Placement Cell ◆ Objectives ◆

- To assist students, to develop capabilities and competencies, to stand out in a crowd of aspiring students.
- To train students, to deal with challenging situations at work, and motivate them, by conducting various workshops
- To promote career counseling, by organizing guest speakers viz. senior corporate personnel, and most importantly, by the immediately placed senior students.
- To assist students, in obtaining placement in reputed companies.

Soft Skills Training

- To organize on-campus/off-campus interviews, for final year students and internship (training), for students with industries and reputed institutes.
- To maintain regular interaction with industry, through Seminars-Workshops, Guest Lectures and Conferences etc.
- Gathering information about job fairs, and all relevant recruitment advertisements.
- To act as a bridge between students, alumni and the employment community.

Sessions are organized, to train students on analytical, logical, verbal and critical reasoning, problem-solving and time-saving techniques, along with English language proficiency skills.

Group Discussions & Personal Interview

• Multiple rounds of mock group discussions, are continuously conducted, to build confidence, communication skills, teamwork and enhance the technical knowledge of the subjects, along with current affairs. Students are coached on the required interview skills, which are related to confidence, creativity, ability, personality development, and to react, respond and handle stressful situations.

Department of Science & Humanities VISION

To facilitate students, to acquire and enhance knowledge and skill sets, related to basic sciences, mathematics and humanities, to become meritorious engineering professionals, possessing a spirit of social commitment.

MISSION

- M1• To provide the students, with a strong foundation of the concepts, in applied sciences.
- M2. To motivate students, to learn and apply knowledge, in a creative and constructive manner.
- M3• To develop the personality of students, and assist them, to embrace life management skills.
- M4. To instill in the students, a sense of civic and social responsibility.



DEPARTMENT OF CIVIL ENGINEERING



VISION

To develop technically competent and ethically responsible Civil Engineering professionals, having innovative and leadership qualities to meet the challenges in the society.

MISSION

- M1.To impart quality engineering education, with an emphasis on technical knowledge and practical skills.
- M2.To enhance career opportunities, for students through industry-institute interactions and value-added courses.
- M3.To inculcate professional ethics, and create socially responsible engineers.
- M4.To encourage sustained lifelong learning, to become innovators who can satisfy the ever-changing needs of the society.

PROGRAM SPECIFIC OUTCOMES (PSO)

- Demonstrate sound knowledge in the aspects of design, analysis and can conduct investigations of Civil Engineering with an emphasis on geotechnical engineering.
- Exhibit a broad understanding of environmental, societal, health and structural issues in infrastructural development.
- Involve in life-long learning and pursue research in the areas of Civil Engineering.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- Contribute to the infrastructure development projects undertaken by any organization.
- Pursue higher studies and engage in teaching/research and development in Civil Engineering and its allied fields.
- Function effectively in multicultural and multidisciplinary teams in various capacities for sustainable development of the society.







CAREER OPPORTUNITIES

Construction activities includes Water works, Sewers, Dams, Power plant and Transmission, Towers, Railroad, Highways, Bridges, Tunnels, Irrigation canals, Traffic control, Airport runways and Skyscrapers etc.

ADVANCED LABORATORIES

CIVIL ENGINEERING WORKSHOP: To impart knowledge and technical skills, on basic Civil Engineering practices such as masonry, surveying, modelling etc.

SURVEY LAB: To impart training in Chain, Compass, Plane table and Total Station surveying & Levelling.

MATERIAL TESTING LAB: To study strength aspects of concrete and metals

GEOTECHNICAL ENGINEERING LAB: To provide testing facilities, for determining engineering properties of soil and rock.

TRANSPORTATION ENGINEERING LAB: To conduct experiments, in the fields of rigid and flexible pavements and testing pavement materials

ENVIRONMENTAL ENGINEERING LAB: To conduct laboratory tests, for water quality assessment.

CAD LAB: To familiarize Civil Engineering application software, such as AUTO CAD, STAAD, ASC, FEM software, Arch GIS etc.

M.Tech. GEOTECHNICAL ENGINEERING

IES College of Engineering, recognizes the importance of Geotechnical Engg. Considering it as a social responsibility, IESCE has introduced M.Tech in the area of Geotechnical Engineering in the department of Civil Engineering. IESCE is the first self financing college in Kerala to offer this course.

CE

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING



VISION

To provide quality technical education, in the field of computer science and engineering and develop professionals by imparting human values, instilling entrepreneurship capabilities with social responsibility, to meet the challenges in the technological society.

MISSION

- M1.To educate the students, with fundamental concepts of core Computer Science and Engineering.
- M2.To provide practical skills, in the advancements of the Computer Science and Engineering field, required for the growing dynamic IT industries.
- M3.To sculpt strong personal, technical, entrepreneurial and leadership skills.
- M4.To inculcate students with knowledge and lifelong learning, professional ethics and infuse in them, a sense of contribution to the society.

PROGRAM SPECIFIC OUTCOMES (PSO)

- Apply fundamental knowledge, for problem solving and analysis, as well as conduct investigations, in computer science and engineering, for sustainable development.
- Apply software engineering principles and practices, to provide software solutions.
- Acquire proficiency, in identified thrust areas such as, Image processing, Network security and Internet of Things.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- Enable graduates to be successful in their chosen careers, by applying their continual learning of Computer Science and Engineering, in their work and life situations.
- Comprehend, analyze, design, and create novel products and solutions, for real-life problems.
- Possess professional and ethical attitude, effective communication skills, team working skills, multi-disciplinary approach, and an ability to relate engineering issues to broader social contexts.
- 🬼 Exhibit leadership qualities and progress through life-long learning.





CAREER OPPORTUNITIES

The Department, prepares students to pursue leadership, technical and management system in number of industries such as IBM, INFOSYS, WIPRO, TCS, SUTHERLAND, POORNAM INFOVISION, OPINE, AMAZON, GOOGLE etc.

ADVANCED LABORATORIES

PROGRAMMING LAB: Provides skills, in problem solving through learning concepts and various languages like C, C++, PYTHON, JAVA etc.

HARDWARE LAB: Imparts basic concepts of Computer hardware, Micro processor, Interfacing methods and Devices, along with detailed study of important design issues.

COMPUTER CENTRE: Functions as a common internet facility, for students and staff from all departments of the college.

NETWORK LAB: Provides an exposure to the working of varios networking protocols, mode of operation of different types of networks, routers, interfacing standards and virtulization concepts using Cisco Packet Tracer.

M.Tech. COMPUTER SCIENCE & ENGINEERING

The aim of the Master's Programmes in Computer Science and Engineering, is to train students with deep theoretical and practical knowledge. Such knowledge, will enable them to tackle complex problems of design and development in industrial fields, as well as to help them pursue further academic achievements through research.

The programme, is designed to impart knowledge and skills through course work, seminars and projects, thesis work and thus caters to the needs of the Industry, R&D organizations and educational institutions.

CSE

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



VISION

To impart excellent technical education, in the field of Electronics & Communication Engineering, to produce competent professionals with social commitment.

MISSION

- M1. To provide state of the art technical education, in Electronics & Communication Engineering at UG and PG levels.
- M2. To provide in-depth knowledge of principles and applications, related to design and development of technology, for societal needs.
- M3. To initiate innovations, by connecting core knowledge with multidisciplinary domains.
- M4. To produce graduates possessing technical expertise, professional attitude and ethical values.

PROGRAM SPECIFIC OUTCOMES (PSO)

- Apply the basics and fundamental concepts of Electronics & Communication Engineering, to design and realize various components and systems, for application in the field of embedded system, communication and various processing technologies.
- Ability to select appropriate hardware and software tools, to solve complex Electronics & Communication Engineering problems.
- Progress to an ethical and inquiry based life-long learning style, to be constructive members of the society.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- Attain sound theoretical and practical knowledge, of Electronics& Communication Engineering.
- Develop design capability, to create or improve technical products
- Be receptive to new ideas and technology and attain professional competence through continuous learning.





CAREER OPPORTUNITIES

Major companies that employ Electronics and Communication engineers in India: BEL, BSNL, ECIL, DRDO, Intel, Samsung, Texas Instruments, Siemens, Bosch, L&T etc. Major companies in M.Tech-VLSI design: Cadence, Core EL Technologies, HCL, ST Microelectronics, Wipro etc.

ADVANCED LABORATORIES

VLSI LAB: Provides hands on experience to students in analog, digital, mixed signal circuit design.

COMMUNICATION SYSTEM LAB: Provides knowledge about microwave and optical communication.

ANALOG & DIGITAL COMMUNICATION LAB: Conveys knowledge regarding communication circuits.

MICROPROCESSOR AND MICROCONTROLLER LAB: Imparts knowledge regarding microprocessor programming, interfacing and debugging, interfacing standards & virtualization concepts using Cisco Packet Tracer.

DIGITAL ELECTRONICS LAB: Provides experience on design, testing and analysis of digital circuits.

ELECTRONIC CIRCUITS LAB: Implements design and set up of basic circuits.

R&D LAB: Provides facility for projects and research activities and has bagged nine IEEE funded projects.

The software used in various laboratories are: CADENCE, EDWINXP, LAB VIEW, MATLAB, XILINX.

M.TECH -VLSI DESIGN

The objective of this post graduate course, is to create professionals in the emerging field of integrated circuits, with a view to meet the complex demands, of the present electronics world. PG in VLSI Design, is aimed at developing experts, with focus on technical capabilities and to impart training in designing complex circuits. The course aims to introduce students to the designing of Very Large Scale Integration (VLSI) microelectronic circuits, focusing on back-end integrated circuit design(custom transistor-level layout as well as design flow based on standard cells), using the latest Electronic Design Automation(EDA) touch.

ECE

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



VISION

To create professionals in Electrical and Electronics Engineering, who would support the needs of the industries, thereby contributing to the progress of humanity, through innovation and creativity.

MISSION

- M1.To educate the students, with fundamentals and core concepts in Electrical and Electronics Engineering.
- M2.To use practical skills in the Electrical and Electronics Engineering field, based on the growing industry demand and benefits to the society.
- M3.To infuse strong professional ethics, to cultivate a pollution-free and energy conserving environment.
- M4.To apply Electrical and Electronics Engineering skills of students, in innovation, creativity and establishment of startups.

PROGRAM SPECIFIC OUTCOMES (PSO)

- To apply principles of engineering theory and laboratory skills, for building a strong platform in Electrical and Electronics Engineering.
- To design, analyze and apply various technologies, connected to Electrical and Electronics Engineering systems.
- To communicate efficiently and work professionally, in a challenging field of Electrical and Electronics Engineering, for the benefit of the society.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- Graduates will have strong foundation in electrical engineering, to enable them to become successful and productive engineers, with technical competency.
- Graduates will be able to identify, formulate and analyze engineering solutions, using appropriate engineering techniques, for real life problems.
- 🬞 Graduates will develop a positive attitude, towards life-long learning.







Leads to high potential careers, in the areas of R&D, Design Engineers, Electrical Installation and Commissioning, Process Control and Instrumentation Engineering, State Electricity Board, Communication and IT, Railways, BSNL etc.

ADVANCED LABORATORIES

ELECTRICAL MACHINES LAB: To study the performance of Electrical motors, Generators and Transformers.

ELECTRICAL MEASUREMENTS LAB: Used for teaching Calibration of various electrical measuring instruments and measurement of different physical parameters using transducers.

POWER ELECTRONICS LAB: To familiarize students with the various Electrical Power Devices & Motor Control Circuits.

ADVANCED ELECTRICAL ENGINEERING LAB:To be conversant with control system concepts using hardware and simulation experiments.

DIGITAL ELECTRONICS LAB:To assemble and test digital circuits using digital, microprocessor and micro controller kits.

SIMULATION LAB:To implement advance simulation projects using MATLAB tool box, Mi Power and ORCAD.

BASIC ELECTRICAL ENGG. LAB: To verify the basic laws of Electrical Engineering.

ANALOG ELECTRONICS LAB: To study the characteristics of various electronics components.

ELECTRICAL WORKSHOP:To be familiar with the Electrical wiring systems, soldering practice and PCB fabrication techniques.



EEE

DEPARTMENT OF MECHANICAL ENGINEERING



VISION

To nurture the development of competent mechanical engineers, with an emphasis on applying the concepts and principles in core engineering to real world contexts.

MISSION

- M1.To provide quality education in mechanical engineering, along with a deep sense of professional ethics.
- M2.To possess commitment and character, for the betterment of the society.
- M3.To encourage students and faculty to be life-long learners.
- M4.To apply mechanical engineering skills and knowledge to make eco-friendly innovations on the latest trends.

PROGRAM SPECIFIC OUTCOMES (PSO)

- Ability to solve complex engineering problems in design, manufacturing and thermal engineering, to meet the needs of the industries and society.
- Inculcate curiosity in interdisciplinary learning, to develop innovative and enterpreneurship capacities.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

- Develop mechanical engineering professionals, who are able to solve complex real world challenges, manage social problems and business challenges.
- The graduates of mechanical engineering program, will acquire higher education and emerge successful.
- The graduates adopt ethics and exhibit effective skills in communication, leadership qualities and social responsibility.







The most conventional career in this field, is Design and Manufacturing Engineers for companies such as Automobile, Machine tool industry, Refrigerator, Aerospace, Oil and Gas industries etc. Today, it is integrated with Electrical, Electronics and Computer engineering. The major recruiters are L&T, Ashok Leyland, Godrej, Mahindra, ONGC, SAIL and others.

ADVANCED LABORATORIES

MECHANICAL WORKSHOP: Equipped for seven skill sets, like Carpentry, Smithy, Foundry, Fitting, Sheet metal works, Welding, Plumbing.

PRODUCTION LAB 1: Equipped with lathes, to teach basic operations like plain turning, threading etc.

PRODUCTION LAB 2: Equipped with machines, to teach the students, different processes of manufacturing mechanical components.

HYDRAULICS LAB: Equipped with test rigs and hydraulic machines, used in the study of hydraulic functions.

THERMAL LAB: Equipped with thermal test equipment and heat engines, to teach the students, various aspects of commercial vehicle engines.

INSTRUMENTATION LAB: Equipped with various measuring instruments, to study measuring methods, used in various industries.

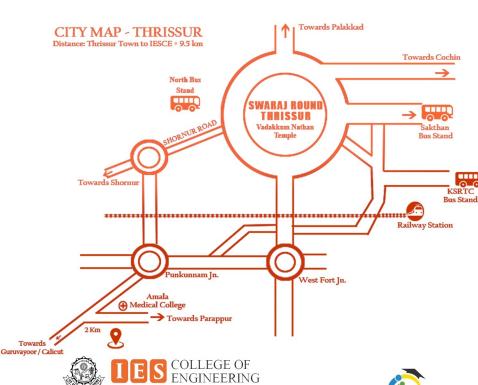
CAD CAM LAB: Equipped with 3D modeling software and CNC machines, in order to study new generation methods of manufacturing.



ME



L&T Power Reliance





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Honeywell