Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD
Re-accredited with A++ Grade by NAAC. CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

SCHOOL OF ENGINEERING

(Estd. in 1996 and Approved by AICTE)

Satellite Campus, Ayya Avinashilingam Nagar, Varapalayam, Thadagam (Po), Coimbatore - 641 108

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An Institution with a Difference for Girls only

No Donation
No Hidden Charges and affordable fee

PROSPECTUS 2024-2025

VISIONARIES

Founder Chancellor
Padma Bhushan
Dr. T.S. Avinashilingam
Renowned Educationist

Founder Vice Chancellor
Padma Sri
Dr. Rajammal P. Devadas
Renowned Educationist

VISION

Self-development and empowerment of women through modern, scientific and value based education to enable them to lead a purposeful life filled with moral and spiritual values.

MISSION

To provide quality education of global standards on a strong foundation of Indian values and traditions to women students based on current advances inscience, technology and societal demands with emphasis on commitment to social progress, peace,harmony and national integration.

CORE VALUES

- Academic Excellence
- Social Relevance & Women Empowerment
- Accountability & Transparency
- Diversity and Inclusion
- Vitality of Culture & Values

VISION AND MISSION OF THE SCHOOL OF ENGINEERING

VISION

Develop and create women technocrats who can meet the challenges of the corporate world and emerge as leaders contributing to industry and society.

MISSION

- To produce global women technologists by imparting quality education through pursuit of excellence that simulates the intellect and the heart.
- Inculcate in all the staff and students scientific temper and research attitude.

BEACONS OF LIGHT

Dr. T.S.K. Meenakshisundaram
Chancellor and Managing Trustee

Dr. (Mrs) V. Bharathi Harishankar
Vice Chancellor

Dr. (Mrs) S. Kowsalya
Registrar

Dr. (Mrs) B. Sargunam
Dean-Engineering

GROWTH AND TRAJECTORY OF THE UNIVERSITY

- Established in 1957 as an Aided College exclusively for women
- Attained Deemed University status and Autonomy in 1988
- Received A++ grade by NAAC
- Renowned for empowering rural and economically vulnerable girls through higher education
- Trendsetter in welfare programmes, community rehabilitation and research activities
- Blazing a trail in inculcating values and culture in students and moulding them as good human beings and citizens
- Progressive Institution committed to the pursuit of excellence
- To provide inclusive growth of women and thereby promoting exclusive societal development

Women's Education Imparted through

Formal Education
Research Activities
Non-formal Education

Formal Education to

First generation learners
Learners from conservative communities
Economically and socially disadvantaged

Non-formal Education to

Adolescent girls and home makers
Rural and farm women
Transgenders
Self Help Group (SHG)

SCHOOL OF ENGINEERING

The School of Engineering, one of the arms of Avinashilingam Institute for Home Science and Higher Education for Women, a Deemed to be University, was started in the year 1996 with the approval of All India Council for Technical Education (AICTE), New Delhi. The school is spread over an area of 30.7 acres and is situated 6 km off Mettupalayam Road at Varapalayam.

The Vision of the School of Engineering is to produce industry-ready women engineers who can compete in today's world through innovation, enterprise and technical excellence. Well qualified faculty members encourage and mentor the students to achieve technical expertise. The School's curriculum is based on Outcome Based Education (OBE) syllabus which is updated annually with the guidance of experts from academia, industry, and research organisations as well as our own successful alumni, who have achieved high places in their professional career.

In order to keep students abreast with changing technologies, Guest lectures are organized on regular basis, on topics within and beyond the curriculum. On the co-curricular and extra-curricular front, several activities are conducted that assists in holistic development of students' personality with critical thinking ability. The scenic and serene campus away from noise pollution of the city, set amidst a variety of flora and fauna creates an ideal ambiance for learning.

PROGRAMMES OFFERED AT SCHOOL OF ENGINEERING

Bachelor of Engineering (B.E.)

1. Artificial Intelligence and Data Science
2. Biomedical Instrumentation Engineering
3. Civil Engineering with Computer Application
4. Computer Science and Engineering NBA Accredited
5. Computer Science and Engineering (Artificial Intelligence & Machine Learning)
6. Computer Science and Engineering (Internet of Things and Cyber Security including Block Chain Technology)
7. Electronics and Communication Engineering
8. Food Technology NBA Accredited
9. Printing Technology

Duration: Four Years

Master of Engineering (M.E.)

1. Artificial Intelligence and Data Science
2. Food Technology
3. Medical Electronics
4. Embedded System and VLSI

Duration: Two Years

Doctor of Philosophy (Ph.D.) in departments of

1. Biomedical Instrumentation Engineering
2. Civil Engineering
3. Computer Science and Engineering
4. Electronics and Communication Engineering
5. Food Technology

Duration: Minimum Three Years for full time scholars

Bachelor of Vocation (B.Voc.)

1. Food Processing and Engineering
2. Medical Equipment Technology

Duration: Three Years

DEPARTMENT OF BIOMEDICAL INSTRUMENTATION ENGINEERING

The Department of Biomedical Instrumentation Engineering was established in 1996 and offers B.E. in Biomedical Instrumentation Engineering, M.E. in Medical Electronics and Ph.D programmes. It also runs UGC funded B.Voc. Medical Equipment Technology program. The department has benefitted from linkages with multi-specialty hospitals in the region. MoUs have been signed with leading hospitals and industries to help the students in gaining practical knowledge. The department has established AVIN-NI LabVIEW academy and is authorized by M/s. National Instruments to provide training for in-house students as well as students from other institutions. The faculties utilize this facility for research and academics. The academy imparts global competency to students going abroad for higher education.

Salient Features of the Programme

The undergraduate program is based on Choice Based Credit System (CBCS) pattern. Programme Educational Objectives (PEOs) of this programme are to imbibe the following abilities to succeed in profession:

- To define, establish, and lead the emerging discipline of biological Engineering, to address the societal challenges and opportunities.
- To develop skills such as innovation, creativity, adaptability, and critical thinking ability to solve problems in the biomedical industry, medicine, academia, and consulting.
- To develop ability and passion to work wisely, creatively and effectively for the betterment of humankind and rural community and engage lifelong learning opportunities throughout their careers.
- To inculcate leadership skills in their chosen fields so that they will function effectively in mutli- disciplinary team environments and communicative to a variety of audiences, and enhance theirability to make decision that is socially and ethically responsible.

Diagnostic & Therapeutic Equipment Laboratory

Virtual Instrumentation Laboratory

Scope for Employment and Opportunities

Our Biomedical instrumentation engineers can work in a variety of roles that involve the following skills and applications:

- As a personnel in the state and central government sectors.
- As a scientist in Research and Development institutes, as part of a multidisciplinary research team and to come up with innovative solutions in Healthcare.
- As a Biomedical Instrumentation Engineer in industry, to test, design and update various medical instruments that are to be used for diagnosis or treatment.
- As a rehabilitation engineer to design assistive aids for differently abled persons.
- As a medical software professional to support new generation medical imaging systems.
- As a medical coder for medical insurance service providers.
- As teaching professionals in a higher education Institutions and skill sectors
- As a design engineer to develop an advanced coding/simulation system for different implants/3D printed organs.
- As an entrepreneur to design and manufacture healthcare devices.

Industry Linkages

- KG Hospital
- Kongunad Hospital
- CADD Centre
- National Instruments & many more

Few of the Recruiters

Zoho, Capgemini, Cognizant, Infosys, CHC Healthwatch, Sutherland, Focus Edumatics, Omega Healthcare, Visionary RCM, KGISL, Cotiviti, Avantor and Deloitte.

Faculty

The strength of the department lies with its well qualified and dedicated faculty, skilled supporting staff well established laboratories, excellent infrastructure and disciplined & hardworking students. Majority of the senior faculty are Ph.D holders with vast experience in academia and research. The faculty are specialized in the domains like Biomedical Instrumentation, Digital Image Processing, Signal Processing, Embedded system, Microprocessors, Microcontrollers and Nanotechnology.

The faculty adopt modern teaching methodologies and take care of students individually to bring about a holistic development.

STUDENT ACTIVITIES

Professional Societies

The department is associated with Biomedical Engineering Society of India (BMESI) and Indian Society for Technical Education (ISTE) for organising Activities, Technical lectures and Quiz programmes to develop technical competency.

Skill Development

Focus is on enhancing skill sets for students so that they become industry-ready. Hands on training programmes organised by industries on-campus, helps skill development. Training in LabVIEW Core 1 and Core 2, NI Robotics, Troubleshooting and Calibration of Medical Equipment, PCB design, 3D Modelling and Printing of human organs, Artificial Intelligence and Machine Learning, IEEE Embedded Computing for IoT Systems and APP development are imparted. Honing skills on tool usageslike LabVIEW, MATLAB, Simulink, Python, Multisim and OrCAD, helps in the overall development ofstudents.

Association activities and Special Lectures by Doctors, Physiotherapists, Biomedical Engineers and Application Specialist from industries and Entrepreneurs, facilitate enrichment of knowledge across various domains.

Students are encouraged and supported to work on innovative projects and hand-holding is done to publish their research in Conferences and Journals. This has led to the award of students' projects from Tamil Nadu State Council for Science and Technology and recognition at the National Level for Innovative Projects. Apart from this, students are involved in live projects that the faculty are working with.

Industry linkages

Capacity building is enabled through linkages with more than 30 industries and multispeciality hospitals.

Centre for Artificial Intelligence and Robotics

The department has established a 'Centre for Artificial Intelligence and Robotics' with funds from the Department of Science and Technology (DST- CURIE) for setting up an AI facility. Its objective is to impart skills relevant to AI and Robotics, to conduct intensive hands-on-training programmes associated with industries, to nurture the creativity of students in Artificial Intelligence through AI club. This helps to develop innovative AI/ Robotics related projects and prototypes leading to innovation and medical devices.

Research Activities

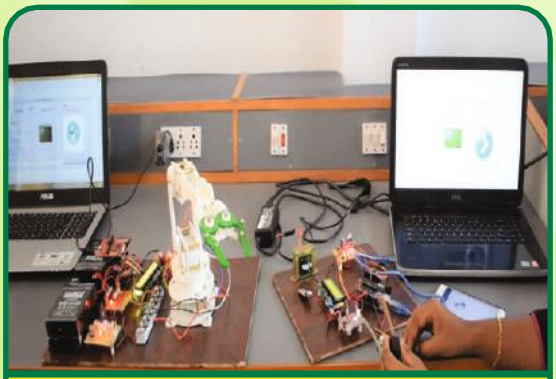
The faculty are actively involved in research in the thrust areas of funding agencies. Faculty have obtained research funds from Indian Council of Medical Research (ICMR), DST and AICTE. The department has one patent awarded to its credit.

Best Product Award-AVINUTY DARSHAN

First Place in Connections in Advaita-23

Second Place for Paper Presentation@ Udhayam-23, KIT College(1)

Poster Presentation



Hand Robotic

I Prize in Paper Presentation, National Level Competition at Gujarat

DEPARTMENT OF CIVIL ENGINEERING WITH COMPUTER APPLICATION

The department of Civil Engineering was established in 2012 and offers B.E. in Civil Engineering with Computer Application and also Ph.D. programme. The department is actively involved in research activities in the field of Structural Engineering, Construction Management, Green Buildings, Energy and Environmental Engineering. The department has a CSIR sponsored Research Lab catering to the needs of research and undergraduate students. Faculty have also filed Patent for their innovative work. Civil Engineers are the need of the hour as several infrastructure projects both in Public and private sectors are going on and planned for the next decade. The department is striving hard to prepare the Nextgen Engineers with knowledge of new technologies and modern tools.

Salient Features of Programme

The undergraduate program is based on CBCS and OBE pattern. A student who undergoesthe B.E. Civil Engineering curriculum will be able to:

- Demonstrate their professional skills and technical competence to solve wide range of challenging problems in Civil Engineering.
- Effectively communicate with multidisciplinary teams to understand, analyze, design and lead projects in infrastructure development of nation.
- Engage in expanding their knowledge through higher studies and professional practice as Civil Engineers throughout their career.
- Inculcate excellence, leadership, entrepreneurship, social, professional, environmental and ethical responsibility in various fields of Civil Engineering.
- Exposing students in the recent technologies namely 3D Printing and virtual reality.

In addition, students are trained to face the challenges of professional career through technical training programmes by professionals and professional bodies, Software Skill training and exposure to various projects to equip them to be Industry ready. The department regularly organizes national conferences, seminars, workshops, for the benefit of students.

Scope of Employment and Placement Opportunities

The department ensures that the students are meticulously trained to face interviews and succeed. Many alumni are occupying leading positions in construction, design and academia in various private and government organizations.

Career Avenues

A career as a civil engineer offers several lucrative job avenues in both public & private sectors.

- Assistant Engineer
- Site Engineer
- Project Engineer
- Consulting or Design Engineer
- Contracting Engineer
- Quality Control Engineer

Industry Linkages

The Department has signed MoUs with pioneering construction industries and training centre. They cater opportunities for the students to gain practical knowledge in planning, analysis and design through guest lectures, hands on training, seminars, internship, industrial visit and placement training. Also associated with Coimbatore Civil Engineering Association (COCENA), Dimensions, VLAND BEST HUB Pvt., Ltd., Shree Poorna Construction, India Cements Pvt., Ltd., and others.

Faculty

The strength of the department lies with its well qualified and dedicated faculty. The faculty have come from diverse and prestigious institutions like National Institute of Technology, Trichy, Government Institute of Technology, Coimbatore, PSG College of Technology, Anna University, Chennai etc. Most of the faculty members are members of professional bodies in various fields of Civil Engineering. Faculty members continuously update their knowledge by attending training programme at IITs & NITs and through Massive open online courses. They are actively involved in testing, consultancy services and sponsored Research projects that help students in getting involved and interact with industries and infrastructure giants as well as government agencies.

Research Activities

Faculty are involved in consultancy and research, thus providing students to participate in live projects. Some of the projects undertaken in recent years are:

1. Modelling of flat slab with drop panels using ETABS
2. Experimental study on effective use of water hyacinth as value added products
3. Application of fountain model wetland system for the treatment of Dyeing Industry Effluent.

Student Activities

The department has an active student association with local Civil Engineers Association, Indian Society for Technical Education and Ultra Tech. Students are encouraged to organize various activities and arrange Special lectures, Quiz programmes, workshops etc. under the guidance of faculty creating confidence, team spirit and leadership competency in students.

Infrastructure

The department has well-equipped laboratories namely Strength of Materials Laboratory, Concrete and Highway Laboratory, Survey Laboratory, Fluid Mechanics Laboratory, Environmental Engineering Laboratory, Soil Mechanics Laboratory, Computer Aided Design and Drawing Laboratory, Engineering Practices Laboratory. In these laboratories, the Civil Engineering students are trained in design and hands on experience.

Computer Aided Design and Drawing Laboratory

Environmental Engineering Laboratory

Fluid Mechanics Laboratory

Survey Laboratory

Soil Mechanics Laboratory

Ms. S. Nishanthini, Final B.E. Civil Engineering won 2nd Prize in Assessment Test conducted by Coimbatore Builders and Contractors Association

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

The Department of Computer Science and Engineering was established in 1996. In nearly two decades, it has grown into one of the major departments in the Institute, with a dedicated team of experienced and qualified faculty members demonstrating excellence in teaching and research. Currently the department offers Bachelor of Engineering (B.E.), Master of Engineering (M.E.) and Ph.D. programmes in Computer Science and Engineering.

The department has attracted the best engineering aspirants and research scholars across the country. Computer Science and Engineering is an integral part of modern technology be it any field, thus it has a never-ending cycle of innovation rooted in it. The focus of the department is not only impart theoretical knowledge but also provide hands-on training, exposure to present day developments and a platform for overall development of individual's personality.

Looking at the global perspective, the department has identified the thrust are as for research and development: Computational Intelligence and Information Systems, Artificial Intelligence, Data Science, Cloud Computing and Internet of Things (IoT).

The department offers the following programmes:

Bachelor of Engineering

- Artificial Intelligence and Data Science
- Computer Science and Engineering
- Computer Science and Engineering(Artificial Intelligence and Machine Learning)
- Computer Science and Engineering (Internet of Things and Cyber Security Including Block Chain Technology)

Master of Engineering

- Artificial Intelligence and Data Science

B.E. Artificial Intelligence and Data Science

The B.E. program in Artificial Intelligence and Data Science is a four-year undergraduate program. B.E. in Artificial Intelligence and Data Science Programme prepares students with the skills to perform intelligent data analysis which is a key component in numerous real-world applications. During the past ten years, data science has emerged as one of the most high-growth, dynamic, and lucrative careers in technology. The major focus of this programme is to equip students with statistical, mathematical reasoning, machine learning, knowledge discovery, and visualization skills. The curriculum covers the core principles of artificial intelligence and Data Science. It equips it with the basic tools and techniques of data handling, exploratory data analysis, data visualization and data-based inference.

The students will gain cross-disciplinary skills across fields such as statistics, computer science, machine learning, and logic, data scientists and they may have career opportunities in healthcare, business, e-commerce, social networking companies, climatology, biotechnology, genetics and other important areas. Students engage in coding assignments, programming projects, and lab work to develop proficiency in programming languages like Python, C, R and Object oriented programming. They also gain experience with popular frameworks and tools used in AI and DS, such as Tensor Flow, Tableau and scikit-learn. Graduates of this programme can pursue careers as data scientists, business analysts, researchers, and more. They are well-equipped to work in a variety of industries and organizations that rely on data-driven decision making and advanced analytical techniques.

B.E. Computer Science and Engineering

Computer Science and Engineering (CSE) is one of the most sought program in the engineering discipline. CSE is a multidisciplinary field that deals with the study, design and development of computer systems and technology. CSE is also the backbone of the most booming fields like Artificial Intelligence, Machine Learning, Big Data, Internet of Things (IoT), Quantum Computing, Block chain, Industry 4.0 Revolution etc. It encompasses a wide range of subjects, including computer programming, data structures, algorithms, operating systems, computer networks, database management, software engineering, artificial intelligence, machine learning, and more.

This programme gives its graduates a competitive edge through robust curriculum and hands-on learning in niche technologies to develop competence which caters to the requirements of the industry. Graduates get good opportunities to join the top brands and corporate houses across multiple industries such as IT/software companies, sales and marketing companies, academic institutions, journalism, content industry, engineering firms, etc.

B.E. Computer Science and Engineering (Artificial Intelligence and Machine Learning)

The Department of Computer Science and Engineering proudly launches an innovative B.E. in Computer Science and Engineering (Artificial Intelligence and Machine Learning) programme from the academic year 2024–2025. This programme seeks to produce competent engineers in the field of Artificial Intelligence who can contribute to the field by developing data analytics, scientific computation, numerical & statistical analysis, and other Machine Learning capabilities. Artificial Intelligence and Machine Learning specialization is currently the high-demand discipline in both Industry and Academics. It offers various booming technologies to meet industry requirements. It is the success mantra of the current digital revolution and is treated as the backbone for future innovations. The main focus is to impart innovative education and enhance technical skills to prepare and empower students in the Artificial Intelligence and Machine Learning era.

This programme covers wide range of technologies such as Machine Learning, Deep Learning, Big Data Analytics, Robotics, Internet of Things, Block Chain Technology and Programming in C, Java, Python, R and Hadoop to provide better career to the students. With a huge explosion in data and its applications, a career in the field of AI&ML can be very promising as Big Data Engineer, Business Intelligence Developer, Data Scientist, Machine Learning Engineer, Research Scientist, AI Data Analyst, AI Engineer, Robotics Scientist, etc. by reputed industries like Microsoft, Amazon, Goldman Sachs, Oracle GBU, Cisco, Dell Technologies, Accenture, among others. The graduates of the program can pursue higher education and research at premier national or international universities with a great future in research.

B.E. Computer Science and Engineering (Internet of Things and Cyber Security Including Block Chain Technology)

The Department of Computer Science and Engineering proudly launches an innovative B.E. in Computer Science and Engineering (Internet of Things and Cyber Security Including Block Chain Technology) programme from the academic year 2024–2025. This undergraduate programme familiarizes students with the functional and operational aspects of IoT, Cyber Security and Block Chain Technology. The curriculum of the B.E. Computer Science and Engineering (Internet of Things and Cyber Security including Block Chain Technology) is designed to drive students towards the corpus of knowledge to develop IoT applications Cyber Security and Block Chain Technologies.

Internet of Things (IoT), Cyber Security and Block Chain Technology are the most significant technological innovations which act as the big game changer of the world. These technologies are becoming more important due to increased reliance on computer systems, the Internet and wireless network standards such as Bluetooth and Wi-Fi, and due to the growth of "smart" devices, including smart phones, televisions, and the various devices that constitute the "Internet of things". Security as a profession is evolving over the years, reason being the increasing rate of cyber crimes. A lucrative, growing field, cyber security focuses on protecting organizations from digital attacks and keeping their information and networks safe. Cyber Security experts detect vulnerabilities, recommend software and hardware programs that can mitigate risks, and develop policies and procedures for maintaining security.

The convergence of Block Chain and the Internet of Things is on the agenda for many companies and there are existing implementations, solutions and initiatives in several areas. Therefore, this course has a fantastic future in different sectors such as supply chain management, digital advertising, forecasting, cyber security, networking etc. It is penetrating in every booming industry and witnessing demands in major sectors including IT with ITES, Banking, Insurance, Logistics, Healthcare, and Public Administration. The aspiring students can learn about the technological standpoint and develop a firm grasp on various Block Chain enabled IoT platforms, Cyber Security and its applications to enhance their career. Potential jobs include information security analyst, chief information security officer, security architect, and security engineer.

M.E. Artificial Intelligence and Data Science

Artificial Intelligence and Data Science are one of the most rapidly growing technologies which has high lucrative prospects across the globe in all industries. M.E Artificial Intelligence and Data Science is an Educational milieu that creates a foreground for students to acquire knowledge in futuristic areas like Artificial Intelligence, Machine Learning, Big Data Analytics and Artificial Neural Networks. This specialization is designed to enable students to build intelligent solutions to problems in a variety of domains and business applications and fields such as natural language processing, text mining, robotics, reasoning and problem-solving. Graduates have career opportunities as Data Engineers/Scientists, Machine Learning Engineers, Data Analysts, Interactive Visualizers/Graphic Designers, Big Data Engineers/Architects, Database Developers, Statisticians, and ML Intelligent System Researchers.

Salient Features of the Programs

The department offers a curriculum based on Choice Based Credit System and Outcome Based Education for both undergraduate and postgraduate programmes. The graduates coming out of the UG programs are trained to be able to:

- Apply their skills to design and find solution to social and technical problems through teamwork and technical knowledge.
- Address and solve the ethical, cultural and environmental issues through technical knowledge they have gained.
- Adapt to the rapidly changing technological environment by learning and applying new skills and technologies.
- Use the fundamental and advanced knowledge in computer science and engineering to pursue higher education and other professional degrees.

Scope of Employment and Placement Opportunities

An active Placement Training cell is functioning with full enthusiasm with the aim of placing the students in top-notch companies. Our students are given training from the second year of their study in the institution by conducting training programs according to the company needs. This will result in placement in many areas not limited to:

- Programming and coding
- Designing processes and systems
- Handling databases and managing them
- Hardware development for IoT
- Designing algorithms for Artificial intelligence based applications

Alumni of the department have been placed all over the globe in various companies like Apple International, Infosys, Robert Bosch, Tata Consultancy Services, Accenture, Cognizant Technology Solutions, IBM etc. Some of our top rankers from under graduates also qualify for Master's and Ph.D program in Computer Science and Engineering related specializations at leading universities both in India and abroad.

Industry Linkages

The department has MoUs with ICT Academy, CADD Centre, Gateway Software solutions and many more to have a closer linkage and promoter search suited to industry needs, and consultancy. The department provides internship, industrial training programs for pre- final year students to acquaint them beforehand with the demands of the corporate atmosphere by these linkages.

Prominent Recruiters

KGISL, Thought Works, Bosch, IBM, Hexaware, Capegemini, Infosys, Tata Consultancy Services, CTS, WIPRO, Schlumberger, CGI, Accenture and the list is endless.

Faculty Strength

The department has adequate faculty members with Ph.D and Master's degree, majority of the faculty are pursuing Ph.D. The average experience of faculty is more than 10 years in their respective areas of specialization like Data Mining, Computer Networks, Information security, Cloud Computing etc. The faculty members constantly update their knowledge through training programs, MOOC courses like NPTEL, SWAYAM etc.

Infrastructure

The Department of Computer Science and Engineering is equipped with the state of the art laboratories having high end machines beyond the AICTE norms. The department uses licensed and open source software covering a wide spectrum of applications. The department has well ventilated classrooms with multimedia projectors. The students are trained and given hands on experience in Data structures, Operating systems, Python programming, Distributed Computing, Web Technologies, Data Mining etc. The department also conducts laboratory sessions by using the online learning platform called Bodhi tree developed by IIT Bombay and other MOOC resources.

Database Systems Laboratory

Operating Systems Laboratory

Student Activities

The Department of Computer Science and Engineering Students' Association conducts guest lectures and workshops to improve the students' progress. Industrial visits and Internships are being organized for the students every year to expose them to the current technological advancements in industries. The students are actively participating in the events organized by ICT academy, Computer Society of India, National Cyber Safety and Security Standards to improve their technical, soft skills and communication skills. In addition, the students undergo internships at National Small Industries Corporation, Chennai for horning their skills. The students are encouraged to apply for project funding from Tamil Nadu State Council for Science and Technology, DST CURIE, UGC etc. The students participate and present technical papers in International and National conferences to enhance their skills.

III Year Students won the National Level Smart India Hackathon 2022(Software Edition) under the theme of Transportation of Logistics with the cash prize of Rs.One Lakh held at JKLakshmipat University,Jaipur, Rajasthan on 25.08.2022 and 26.08.2022

Ms. Siva Sankari I, III CSE student won 1st Prize in Poster Presentation Competition conducted by Computer Society of India (CSI) Coimbatore Chapter on the topic Robowaves crafting India held on 6.3.2023

IV year CSE students won Kovai Innovate Hackathon under the theme of Road Restoration and infrastructure Development with the cash prize of Rs.25,000/- held at Coimbatore City Municipal Corporation organized by SUEZ Private Limited on 04.03.2024.

Smart India Hackathon Hardware Edition Winner 2023 with the cash prize of Rs.1 Lakh held at MIT Art, Design and Technology, Pune during 19.12.2023 to 23.12.2023

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The department of Electronics and Communication Engineering was established in the year 2000 with B.E. programme in Electronics and Communication Engineering. Master of Engineering programme in VLSI Design was started from the year 2010 and the nomenclature has changed to Embedded System and VLSI to match the recent technology. The department offers a Ph.D. programme in Electronics and Communication Engineering from 2015 onwards. The department provides quality and contemporary education through effective teaching- learning process that equips the students with adequate knowledge and skills. It also develops in students an ability to identify, formulate and apply appropriate techniques, resources to solve complex engineering problems through electronics & communication. The key research domains of the department include Digital image processing, VLSI design, Wireless sensor networks, Optical networks, IoT and Artificial Intelligence.

Salient Features of UG Programme

Electronics and Communication is the back bone of all modern gadgets, Automotive, Aerospace, Industrial controls etc. The undergraduate program is based on CBCS and OBE pattern. A student who undergoes the B.E. Electronics and Communication Engineering curriculum will have the ability to:

- Design and implement electronic systems for real time applications that include communication systems, signal processing, VLSI and Embedded systems.
- Both Hardware and Software knowledge help them to solve complex Engineering problems through innovation and modern tool usage.
- To work independently or in a team for Agile solutions.

In addition, students are trained to face the challenges of professional career through technical training programmes by industry experts, Software Skill training and exposure to various projects to equip them to meet the current needs of the industry. The department regularly organizes conferences, seminars, workshops, for the benefit of the students.

Scope of Employment and Placement Opportunities

Placement training on aptitude and logical reasoning is continuously provided to help them gear up to take up interviews, aptitude tests and group discussions to succeed. Also, communication skill training is provided to the students. Students of ECE have wide opportunities in the core companies and software companies. The graduates are preferred in domains like but not limited to:

- Automotive companies
- Aerospace
- Consumer Electronics
- Internet of things and Industry 4.0
- Embedded system design
- Defence establishments
- Software design

The students have been placed in companies such as Robert Bosch, IBM, TCS, CTS, Accenture, Infosys, CGI, Smart DV and many more. Also, electronics and communication engineers are offered several lucrative job avenues in both public & private sector. Students interested to take up higher studies are also assisted and guided.

Faculty

The department has well-qualified and dedicated faculty members with specialization in various fields such as VLSI Design, Wireless Networks, Optical Communication, Digital Image Processing and Embedded Systems. The faculty members serve as Doctoral Committee members of other Universities and also as Board of Studies members for our University and other Universities. Faculty members continuously update their knowledge by attending training programme at IITs, NITs and other premium institutions as well as through Massive open online courses (MOOCs) like NPTEL, SWAYAM etc.

Infrastructure

The department has six well equipped laboratories with necessary hardware equipment and software tools.

- Digital Signal Processing Laboratory
- Embedded Systems Laboratory
- Microwave and Fiber Optics Laboratory
- Electronics Laboratory
- IC & Communication Laboratory
- VLSI Design Laboratory

The department has ICT enabled smart Classrooms that enables better teaching learning process.

IC and Communication Laboratory

Electronics Laboratory

Microwave and Fibre Optics Laboratory

Embedded Systems Lab

TI Supported Innovation Center

VLSI Design Laboratory

Student Activities

To encourage and expose the students to professionalism, a Students' Forum (ISF) of IETE (Institution of Electronics and Telecommunication Engineers) has been started by the department. ISF was set up in School of Engineering in the year 2009. ISF organizes technical programmes and activities regularly to exchange ideas and information on the topics of emerging trends and new development to nurture the professional development of student members. ISF encourages teamwork and leadership through expert lectures, Quiz club, Toastmaster club and Electronics Hobby club. Guest Lectures are arranged regularly through ECE Association also.

Ms.Harshetha.V,Ms.AngelinJenita.A, Ms.Taj Sanofia.S from Artificial Intelligence and Data Science (AI&DS), RitiAchammal.S, Prashanthi.S from Electronics and Communication Engineering (ECE) and Harshitha.J from Integrated M.Tech ECE(IoT) School of Engineering, Avinashilingam Institute for Home Science and Higher Education for Women, Mentored by Dr.R.Sudarmani, Associate Professor & HoD, Department of Electronics and Communication Engineering and Dr.Rajakumari, Associate Professor from Department of Computer Science and Engineering have participated under MedTech/Biotech/HealthTech innovation scheme at MIT Art, Design and Technology University in Pune. They developed an Automatic Drug Dispenser to simplify the medical management of elderly people and to reduce the death tolls/year. This idea won a first prize of Rs.1 lakh under MedTech/ Biotech/Healthtech scheme.

Smart India Hackathon Hardware Edition Winner 2023 with the cashprize of Rs.1 Lakh held at MIT Art, Design and Technology, Pune during 19.12.2023 To 23.12.2023

Centre of Excellence and Research

The department provides plenty of opportunities for the students and faculty to know the latest industry practices and upgrade their knowledge through industry relevant projects using laboratory facilities of the department. The department has signed a MoU with M/S EdGate and has set up a "Texas Instruments Innovation Centre" to work in the emerging area of research Internet of Things (IoT). Faculty members have a good number of publications in conferences and Journals. They act as reviewers for Journals to review research articles. Students are also motivated to take up the industrial/societal related projects.

DEPARTMENT OF FOOD TECHNOLOGY

Avinashilingam Institute has been a pioneer in the field of Food Technology. Department of Food Processing and Preservation Technology was established in the year 1996 and offers B.E., M.E., Ph.D. in Food Technology, programmes and UGC funded B.Voc. (Food Processing and Engineering). The department has highly qualified and committed faculty members. The Department has well established laboratories to provide training for students and faculty and caters to needs of research and academics. The department has benefitted from linkages with various food industries. Patents have also been filed and published by the faculty.

Salient Features of UG Programme

B.E. Food Technology is a unique program with well-framed curriculum to meet the industry needs. The students are exposed to various processes through well- established laboratories. Many industry sponsored student workshops are arranged to keep students abreast with new trends in the industry. Faculty with multi-disciplinary expertise help students to learn the use of different technologies.

Scope of Employment and Placement Opportunities

Department of Food Technology provides a vast spectra of job opportunities. Students have been prominently placed in reputed firms under various high positions. Major designations and roles include Flavour Analyst, New Product Development Executive, Food Analyst, Food Microbiologist, Food Standard Officer, Food Safety Officer, Quality Control Executive, R&D Executive, Quality Analysts etc.

The job opportunities for the graduates are available in the following domains and not limited to

- Food Processing industries
- Automization in Food Production
- Quality Control
- Food Safety
- Preservation of perishable and non-perishable food products
- MSME
- Dairy Plants
- Banking Sector and Agriculture

Students are also sent for Internships to food Industries in India and abroad.

Faculty

The department has highly qualified faculty in their domain expertise and provides Skill Based Engineering Education. Faculty members are resource persons, members of board of studies, audit committee, members of scrutiny committee, subject expert in other colleges and Universities. Faculty members are also reviewers in National and International Journals.

Infrastructure

The department has well-established laboratories like Food Engineering Lab, Cereal and Pulses Processing Lab, Food Analysis Lab, Quality Control Lab, Bakery and Confectionary Lab, Heat Transfer Lab, Computing Laboratory, Engineering Practices Lab etc., All classrooms in the department are ICT enabled to enhance the learning process and better understanding by the students. Laboratories are highly equipped as per the curriculum and students acquire practical and hands on knowledge with all equipment in the laboratory.

Heat & Mass Transfer Laboratory

Food Engineering Laboratory

Research Laboratory

Student activities

The department encourages students to participate and conduct various activities to develop leadership quality and teamwork. The students under the aegis of FPPT conduct activities in association with Research Institutions like DFRL, CFTRI and other Food Processing Industries. Students are encouraged to participate in National and International level competitions, thereby making them ready for future profession. They are motivated to take up entrepreneurship as career through Entrepreneurship training.

The following are the students who have brought laurels to our Institution. Ms.Annapoorani received Dr. Kalam Award for setting up of Dr.Kalam Library by The Arc Foundation India, Brookefields Mall, Coimbatore and Guinness record holder for making seed balls; Ms.Niharika S.K was awarded the “Most Outstanding Delegate” by. Global Goals Model United Nations, organised by International Global Network, Nakhon Nayok, Thailand.

Title winners of Smart India Hackathon – Team Whistling Cookers was awarded cash Prize of Rs.1Lakh for the hardware: Non-destructive estimation of sugar content in fruits and 1st Runner up – Team Buddies won cash prize of Rs.75,000 for the hardware: Development of portable E-nose to prevent the post-harvest losses in fruits.

Title winners of **Smart India Hackathon won** a cash reward of Rupees 1 Lakh for their innovation on the topic **Waste management system**, Swachh Bharat mission (Garmeen), Department of Drinking Water and Sanitation, Ministry of Jal Shakti**.** The team comprised of Harini Sree K, Nivetha A, Chinthana G, Harshini R P, Ganishka S, led by Varna D and mentored by K. Pooja. The Instant Fertilizer Machine (IFM) is a simple and compact machine that can be used for treating solid food waste and converting it into rich fertilizer.

Cash Prize of Rs. 1 Lakh being received for The Instant Fertilizer Machine.

Cash Prize of Rs.1 Lakh being received Nondestructive simulation of sugar content in fruits

Cash Prize of Rs.75,000 being received Development of portable E-nose to prevent the postharvest losses in fruits.

Setting up of Dr. Kalam Library & Guinness Record for Seed Ball Making

Centre of Excellence and Research opportunities

The Department is aiming to become a Centre of Excellence in food processing by establishing consultancy and research activities. The department focuses on the core and Inter-disciplinary research works such as Food processing, Food Packaging, Minimal Processing, Nanotechnology, New Product development, Thermal Processing, Design of Prototypes, Food Waste Management, Quality Control etc…

DEPARTMENT OF PRINTING TECHNOLOGY

The Department of Printing Technology is one of the four departments, formed during the inception of the Faculty of Engineering in 1996, with AICTE approval. The Department offers bachelor's degree in Engineering &Technology – B.E (Printing Technology) with an annual sanctioned intake of 20 students. Our Institute is one of the very few Institutes in India offering a bachelor's degree in Printing Technology and is the only institute offering it exclusively for women. This B.E programme is accredited by National Board of Accreditation for three years under Tier 1.

Salient Features of Programmes offered by the department

The students are given hands-on training in the well-established laboratories of the department and in the Printing Presses available in both Campus I and Campus II. The Curriculum is based on Industry demands and latest developments in this field, along with a flavour of practical training. The core areas cover the state-of-the-art technology such as Security printing techniques, Nanomaterials and sensors in packaging, green ink technologies and eco-friendly paper-making approaches.

A graduate coming out of the department will be able to

- Identify and analyze engineering problems in Print and allied sectors which will enable them to enter any vertical of Print-Pack Industry
- Use mathematical and simulation techniques and tools so as to enable them to easily adapt to new environments and emerging technologies.
- Inculcate humanitarian concerns and ethics in students integrated with capacity building skills to apply the acquired knowledge for the environment, society and under-privileged community.
- The alumni of the department are more-than-willing to stay connected with the department and they readily come forward to support the students beyond-curriculum assignments, mini-projects, case-studies and placement preparation and recruitment drives.

Scope and Placement Opportunities

Printing Industry and packaging industries are expanding quickly, hence there are many opportunities for the graduates in the following fields.

- Graphic Designers
- Security Printing
- Print Consultants
- Packaging Experts
- Textile and Apparel industries
- Pre-media Companies

The department has a record of 100% placement every year since inception apart from the 10% who opt for higher education. Our alumni today are holding good positions in Press, Packaging Industries and Publishing Companies across the globe.

Industry Linkages

The strong connect that the department has with the Printers Associations at all-India-level, the department is able to prepare the students for the Industry during the four-year course, through Industrial visits, Internships, mentored projects and Final Year Projects, in association with the leading printers in the country.

The department works closely with the Print and allied industries such as paper mills, ink industry, plate-making industry and printing machine manufacturers, to impart state-of-the-art education. Educational resources like printing equipment, accessories, exclusive print samples, technical books, catalogues,etc. are sponsored by the printers.

Meritorious students are appreciated with awards by printer associations. Our students win awards in print symposiums conducted by other printing institutes also.

Due to the shortage of B.E. graduates for high end job roles in the Printing Industries, the Printers Pan India are conducting a 'We support Print Education' campaign this year.

Faculty

The Faculty members are well-qualified in their domain and are experts in skill-based engineering education. They interact closely with the print and allied industries for periodical updation of the upcoming trends. They sculpt the students as employees, employers and entrepreneurs by giving individual attention to the students and steering them along the right direction. The faculty members network with all other printing institutes in India both in Diploma and in Degree levels for knowledge sharing.

Infrastructure

The Classrooms are available with ICT facilities, Laboratories are highly equipped as per the curriculum requirement and students get practical and real time knowledge using the fully equipped printing Press units. Students are also trained for application based /product based assignments and Lab works are provided using high-end Press Units.

Single Colour Offset Machine – A4 Size

Screen Printing Machine

Print Finishing Laboratory

Four Colour Offset Machine – Medium Size

Student Activities

Students are encouraged to conduct Seminars, Conferences and workshops to build leadership spirit. They are encouraged to visit industries and field trips. They conduct several programs under the aegis of the department Association.

Field Visit to flex printing unit

Centre of Excellence and Research

The department focuses on the Core, Inter-disciplinary and research works such as Printed Electronics, 3D printing, Smart textiles, Printing Plate Corrosion and Paper Coating. Social issue projects like Paper Recycling, Biopolymer, Press Wastage control and Quality Control are carried-out.

DEPARTMENT OF SCIENCE AND HUMANITIES

The Department of Science and Humanities initiates and prepares the students to achieve critical thinking, the ability to innovate, work in multicultural environments, and adapt to the multidimensional roles expected of engineers.

In this era of STEM, science, and mathematics have a major role in engineering education. Courses such as mathematics, physics, chemistry, and English are taught by the Department of Science and Humanities during the first year, which provides the foundation in STEM for engineering graduates. It facilitates the students for a better understanding of the courses in their specialization. The Science and Humanity courses impart essential skills like innovative thinking, effective communication, leadership skills, and team spirit in the first year of engineering.

Salient Features of courses offered by the Department

- In addition to offering theoretical subject knowledge, hands-on training on SciLab for Mathematics and EWL Software for English Language skill acquisition are provided througha variety of activities.
- Practical training is given in basic engineering subjects like Civil, Mechanical, Electrical and Electronics as well as AUTOCAD and Graphics.
- The special feature of this department is conducting “Bridge Courses” for fresh students at the beginning of the first semester, which help them for a smooth transition from school education to meet the requirements and challenges of University education.
- Comprehensive remedial classes are conducted for slow learners.
- Domain specific conferences, seminars, workshops and field visits are organized for enhancement of knowledge in the relevant field.

Faculty

All the faculty members are Ph.D. holders with vast experience and positive approach to handle first year students in a professional course. It is essential that freshers are given moral support as they enter portals of higher education which is provided by the faculty of Department of Science and Humanity. Counselling support is provided by the staff to students while they adjust to higher education environment.

Staff members update their knowledge constantly by doing online courses, attending conferences, seminars, Workshops and FDPs.

Infrastructure

The Physics and Chemistry laboratories are well-equipped. A state-of-the-art Language Laboratory provides interactive learning to enhance the oral and aural fluency of students. All classrooms are ICT enabled and Smart board is extensively used for teaching learning process.

Language Laboratory

Chemistry Laboratory

Physics Laboratory

Student Activities

Students are taken for field visits to places like Gass museum, GD museum, Salim Ali Centre for Ornithology, Biosphere Nature Park and other places for experiential learning. Department association meets are conducted every week to hone the communication, public speaking skills of students, update their scientific and technical knowledge and build team spirit and leadership skills. Design layout, editing, collecting and organizing material are done by students for Institute's magazine and e newsletter under the tutelage of a staff member.

DEPARTMENT of B.VOC. DEGREE PROGRAMME

The three-year Bachelor of Vocation (B.Voc.) was started in the academic year 2014-15. B.Voc.degree programme is a unique initiative by MHRD to enhance the employability skills of higher education students.

Programmes offered

- B.Voc. (Food Processing and Engineering)
- B.Voc. (Medical Equipment Technology)

Duration: 3 Years

Eligibility: 10+2 pass in any stream

Significance of the Course

- Predefined entry and multiple exists with various levels of awards – Certificate /Diploma / Advanced Diploma / B.Voc. degree
- Judicious mix of 60 percent skill component relating to profession with 40 percent of General Education
- Curriculum integrated with National Skill Qualification Frame work (NSQF) Levels to bridge the skill gap between academia-industry
- Multilevel certification by National Skill Development Corporation (NSDC), New Delhi, Govt. of India

Demonstration of Infusion Pump and Syringe Pump Tester Device by Helix Corporation, Bangalore

LIBRARY

The School of Engineering Library is to provide information services and access to print and e-resources to support the educational and informational needs of the institute community. The computerized library is well equipped with modern facilities and resources in the form of print and e-books, print and e-journals, CD-ROMs, online databases, and audio video cassettes.

The library is equipped with an air-conditioned Digital library with a sufficient number of systems with internet and wifi facility to access e-resources. Our library provides remote access to subscribed and UGC e-ShodhSindu Consortium through which users can access more than 3785 e-journals and 6 Electronic Databases from 13 well-known publishers. Institutional Repository has been created and maintained for the question bank and answer keys, e-books, Laboratory manuals of using D-Space.

The "Reader's Book Corner" has been created with the novel idea of making use of books that are not required anymore by the users. All the students and faculty members of the School of Engineering are enrolled in NDLI Club (National Digital Library).

Open Book Stack for Ready Reference

Digital Library

Ample Seating Capacity

PROFESSIONAL BODIES FOR HOLISTIC DEVELOPMENT

There are several student chapters associated with various Professional societiesto enable students to know what is happening in their respective streams. The studentsare encouraged to hold various activities under these societies which bring them into contact with industry giants. Different student chapters are:

- **Biomedical Engineering Society of India (BMESI):** BMESI is to stimulate and aid research and development in all aspects of Biomedical Engineering, the department possesses Institutional membership. It provides a forum for discussing innovative ideas leading to creative inventions.
- **Coimbatore Productivity Council (CPC):** School of Engineering, Avinashilingam Deemed University is a life member of Coimbatore Productivity Council (CPC) affiliated to National Productivity Council (NPC), New Delhi since June 2011. CPC unit in School of Engineering conducts awareness, guest lectures and training programs to the students on the various management techniques adopted in industries.
- **ICT Academy:** Avinashilingam Institute for Home Science and Higher Education for women has signed an MoU with Information Communication Technology Academy. As per this MoU, University has become the Associate Nodal Institute of ICT Academy. The purpose of this MOU is to interact with industry.
- **Computer Society of India (CSI):** The Computer Society of India (CSI) is a non-profit professional meet to exchange views and information learn and share ideas. CSI Student Branch was started in School of Engineering in the year 2005 to facilitate education and knowledge exchange among the student community. The student branch organizes various events like guest lectures, workshops, quiz and competitions for CSI student members. Our Institution has CSI Educational Institution Membership from 2008.
- **Institution of Electronics and Telecommunication Engineers (IETE):** IETE is the national Apex Professional body of Electronics & Telecommunication, Computer Science and Information Technology Professionals. IETE (Institution of Electronics and Telecommunication Engineers) Students' Forum (ISF) of our institution has been set up in our School of Engineering in the year 2009. Various activities are carried out for the ISF members regularly by Quiz club, Toast-Masters club and Electronics Hobby club of ISF.
- **Indian Society for Technical Education (ISTE):** ISTE is a national, professional, non-profit society in the field of Engineering and Technology. The ISTE staff and student chapters were started in the year 2003 to bring efficient linkage between technical institutions, industry and society. Our students bagged the best student award from ISTE students' chapter, Tamil Nadu and Puducherry Section for three consecutive years 2014, 2015 and 2016. Many activities are conducted for the students to train them as global leaders.
- **Indian Association of Energy Management Professionals (IAEMP):** Indian Association o f Energy Management Professionals (IAEMP) is a group of highly qualified, committed and dynamic conscience keepers to nation on energy matter. We, the active members of IAEMP national level network with 90 students and staffs of Electrical and Electronics Engineering Department. Student Chapter was inaugurated in the year 2016.

ADMISSION PROCEDURE 2024-25

I. BACHELOR OF ENGINEERING (B.E.)

a. Eligibility Norms

Candidates must be either 17 years of age or attained the age at the time of admission. The candidate should have studied in regular, full-time, formal stream in the school. Candidates who have appeared for the 12th standard examinations in May/ June 2024 and awaiting results can also apply.

- Passed 10+2 examination Subjects Studied (As per AICTE norms)
- Obtained at least 45% marks (40% in case of candidates belonging to reserved category)

Course	Duration	Eligibility Criteria
CSE / CSE (AI&ML)/ CSE (Cyber Security)/ AI&DS / ECE	4 Years	• Mandatory course -Physics, Maths at 10 +2 level • For remaining single course select any courses out of 14# #Chemistry/Computer Science/Electronics/ Information Technology/Biology/ Informatics Practices/ Bio Technology/ Technical Vocational subject/Agriculture/ Engineering Graphics/Business studies/ Entrepreneurship
Biomedical Instrumentation Engineering (BMIE)	4 Years	• Mandatory Courses - Physics at 10 + 2 level • For remaining two courses select any courses out of 14# #Mathematics / Chemistry/ Computer Science/Electronics/Information Technology/ Biology/ Informatics Practices/ Biotechnology/ Technical Vocational subject/ Agriculture/ Engineering Graphics/ Business Studies/Entrepreneurship
Civil Engineering with Computer Application	4 Years	• 10+2- Maths, Physics, Chemistry /Vocational ♦ The Institution may not offer the programme if the number of admissions are less than the minimum required number and in that case they will be given options in the available branch by paying the difference of fee
Food Technology	4 Years	• Mandatory Courses – Chemistry at 10 + 2 level • For remaining two course select any courses out of 14# #Physics/ Mathematics / Computer Science/Electronics/Information Technology/ Biology/ Informatics Practices/ Biotechnology/ Technical Vocational subject/ Agriculture/ Engineering Graphics/ Business Studies/Entrepreneurship
Printing Technology	5 Years	• Mandatory Courses – Physics & Chemistry at 10 + 2 level • For remaining two course select any courses out of 14# # Mathematics / Computer Science /Electronics/ Information Technology/ Biology/ Informatics Practices/ Biotechnology/ Technical Vocational subject/ Agriculture/ Engineering Graphics/ Business Studies/Entrepreneurship

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b. Entrance Exam

Avinashilingam Engineering Entrance Examination (AEEE) - 2024.

Candidates will have to appear for Avinashilingam Engineering Entrance Examination (AEEE)-2024. Please look at the website for dates.

II. B.E. (Lateral Entry)

Eligibility Norms

A. Passed Diploma examination from an AICTE approved Institution; with at least 45% marks (40% in case of candidates belonging to reserved category) in appropriate branch of Engineering / Technology.

B. The candidates who have passed Diploma in Engineering & Technology from an AICTE approved Institution shall also be eligible for admission to the first year Engineering Degree courses subject to vacancies in the first year class in case the vacancies at lateral entry are exhausted. However, theadmission shall be based strictly on the eligibility criteria as mentioned above.

III. MASTER OF ENGINEERING (M.E.)

Eligibility Norms

Bachelors' degree or equivalent in the relevant field with at least 50% marks (45% in case of candidate belonging to reserved category) at the qualifying Examination. Those who are awaiting the resultsof their qualifying examinations will also be eligible to apply.

IV. ADMISSION PROCEDURE

The application form and the prospectus for admission to Engineering Programmes is available atwww.avinuty.ac.in.

Candidates need to register in the admission portal by filling the required information, attach thenecessary documents and pay an amount of Rs.200/- (for SC/ST candidates Rs.100/- only) as registration fee.

For admission to M.E. Programmes, selection will be based on marks in B.E./ B.Tech equivalent,entrance examination marks and a personal interview. Candidates need to qualify in the Entrance Examination conducted by the competent authority/ School of Engineering, Avinashilingam Institute for Home Science and Higher Education for Women. The candidates should compulsory produce their marksheets at the time of interview.

FEE STRUCTURE FOR B.E PROGRAMMES
(for candidates admitted in 2024-2025)

S.No	B.E. Programmes	First Year
1	Computer Science and Engineering	1,25,000/-
2	Computer Science and Engineering(AI & ML)	1,25,000/-
3	Computer Science and Engineering (Cyber Security)	1,25,000/-
4	Artificial Intelligence and Data Science	1,25,000/-
5	Electronics and Communication Engineering	1,00,000/-
6	Biomedical Instrumentation Engineering	95,200/-
7	Food Technology	95,200/-
8	Civil Engineering with Computer Application	37,000/-

SCHOLARSHIP FOR MERITORIOUS STUDENTS

	Percentage in QualifyingSubjects	Fee Concession (For I Semester and II Semester)
STATE BOA RD	95% Marks and above	100% Tuition Fee Waiver
	85% Marks and above	50% Tuition Fee Waiver
CBSE	90% Marks and above	100% Tuition Fee Waiver
	80% Marks and above	50% Tuition Fee Waiver

Fee Structure for Vocational Programmes
(for candidates admitted in 2024-2025)

S.No	B.Voc Programmes	First Year
1	Medical Equipment Technology	22,000/-
2	Food Processing and Engineering	22,000/-

FEE STRUCTURE FOR M.E. PROGRAMMES
(for candidates admitted in 2024-2025)

S.No	M.E. Programmes	First Year
1	Artificial Intelligence and Data Science	45,400/-
2	VLSI	45,400/-
3	Medical Electronics	45,400/-
4	Food Technology	45,400/-

PLACEMENT and TRAINING

The Placement and Training cell prepares students for a professional life. Encourages and motivates students to cope up with the continuously changing technological scenario according to the prevailing demands in the job market. It guides and counsel's students based on their interest towards their career by giving awareness on industry expectations. It closely networks with various professionals from different industrial sectors and engages with them to enhance the employability skills of the students by means of orientation, seminar, workshop, and training for recruitment. The important initiatives that the centre takes are:

- The Department of placement and training is a nodal centre for providing inputs to students on career opportunities for job seekers and students opting for higher studies. It will also train students to crack Civil Services examinations.
- The Placement cell interacts with various industries, understand their requirements and use them for training.
- It invites international Universities to visit the campus and conducts orientation and counselling on higher education opportunities as well as linkages.
- The cell facilitates signing MoUs with industries for training, placement, student scholarships/awards and other CSR programs.

Activities

- Industry relationship
- Corporate Training
- Personality Development Programmes
- Internship
- Alumnae talk
- Communication skill training
- Technical Training
- Women Diversity Drive
- Career Guidance & Learning resources
- Aptitude Training
- Campus Interviews
- Any time Accessible Labs

SEMESTER WISE ACTIVITIES CONDUCTED BY PLACEMENT AND TRAINING CENTRE ARE:

I SEMESTER

- English Language WRSL
- Teamwork

II SEMESTER

- Basic Communication Skills
- Organizing Skills

III SEMESTER

- Advanced Communication Skills
- Verbal Analogies
- Positive Attitude
- Self-Analysis And Self-Management
- Attitude And Behaviour

IV SEMESTER

- Communicating with Confidence & Clarity (Assertive Communication)
- Stress Management
- Group Discussion & Presentation Skills
- Motivation
- Sharpening coding Skills

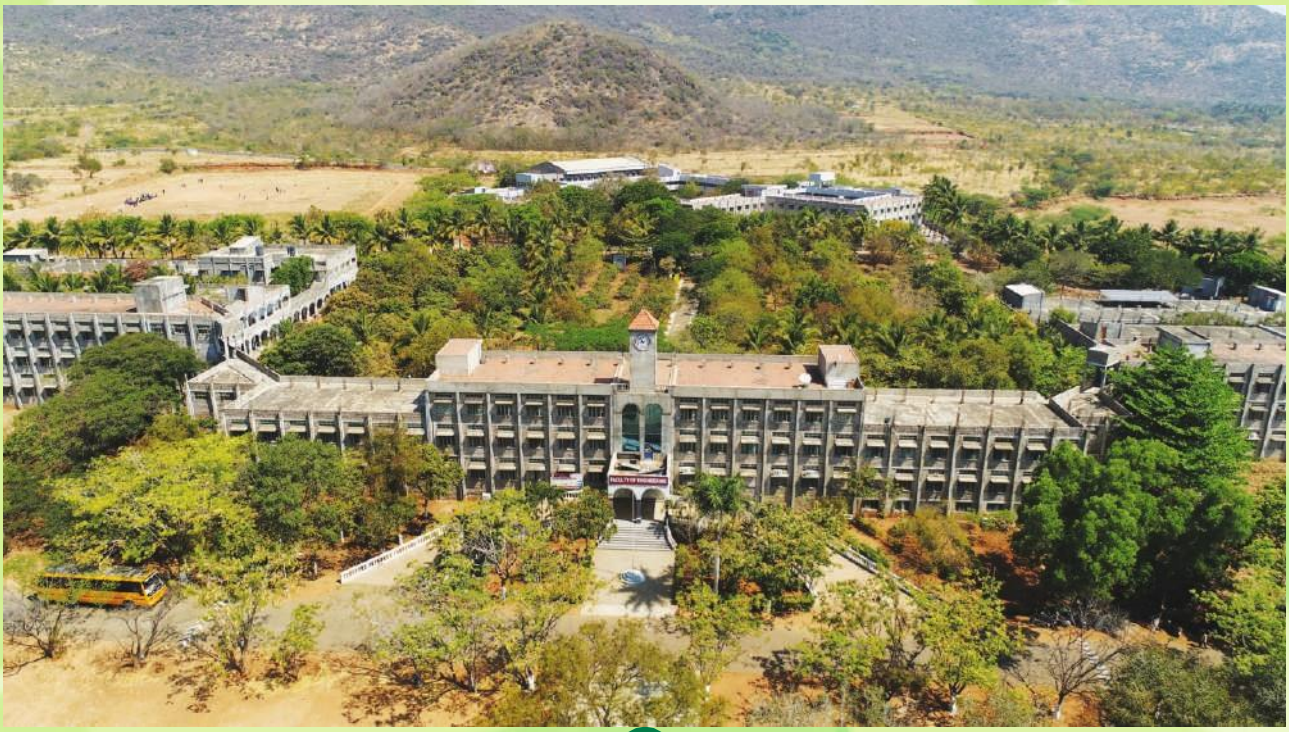
V SEMESTER

- Body Language & Proxemics
- Interview Skills And Group Discussions
- Group Discussion
- Aptitude Test Preparation
- Balancing Personal & Professional Life
- Review Of Program Related Aptitude

VI SEMESTER

- Individual Counseling & Guidance
- Career Orientation
- Work Ethics
- Interpersonal Relations
- Adapting to the Corporate Culture
- Program related aptitude

MAJOR RECRUITERS



NATIONAL SERVICE SCHEME

NSS is a compulsory component in the curriculum at the UG level that brings the students out of the cocoon of 'I, Me, Myself' and make them conscientious citizens.

"Contributing back to the society" is the pivot and motto of NSS activity.

This instills in students a sense of service to the community

- Students adopt villages and conduct awareness programmes, seminars and workshops to the rural and economically vulnerable sections of society
- Cultivates team spirit, leadership qualities in learners
- NCC and CSS are also offered to students in addition to regular academic programmes.

Plastic awareness session

Students on Rally

Rally on Violation against Women

ENTREPRENEURSHIP DEVELOPMENT CELL AND INCUBATION CENTRE

"Without change there is no innovation, creativity, or incentive for improvement. Those who initiate change will have a better opportunity to manage the change that is inevitable."

- William Pollard

Entrepreneurship Development Cell (EDC) was established under AICTE/RIFD/EDC scheme 2010-11, with an outlay of Rs.7.05 lakhs. The aim of the cell is to create innovative technology entrepreneurs of high order in Higher Education Institutions and to include Entrepreneurship as well as Innovation as part of the Science and Technology Programmes.

As per the MHRD mandate the youngsters should become job providers rather than job seekers through their innovative ideas. The EDC provides ample opportunities to learn by doing through skill development programmes and understand the concept of Entrepreneurship in all programmes through Awareness camps. Faculty members from every department are trained in Entrepreneurship by NSTEDB, Department of Science and Technology, Government of India.

Activities of the Cell

The EDC Cell encourages the students to be aware, ideate, innovate, prototype and create marketable solutions which can solve societal problems in a cost effective manner. More than 20 technology student startup ideas have emerged from our campus and are ready to become incubates of our Avinashilingam Technology Innovation and Incubation Centre (ATIBIC) after their graduation.

Since 2011-12, various programmes like Entrepreneurship Awareness Camps (EACs) Women Entrepreneurship Development Programme (WEDP), Technology based Entrepreneurship Development Programme (TEDP) and Faculty Development Programmes (FDP)were conducted regularly for the benefit of students to motivate them to think beyond placement opportunities.

Achievements

The EDC has collaborations with Confederation of Indian Industries (CII), National Entrepreneurship (NEN), PSG-Science and Technology Entrepreneurial Park (STEP), KCT FORGE, CODISSIA, WOBEDA and MSME Development Institute, IIT Madras and many more..

The EDC also has linkages with Government Institutions like Entrepreneurship Development Institute of India, Gujarat, RGNIYD, Sriperumpudur, Tamil Nadu, EDII, Government of Tamil Nadu asour Programme sponsors.

EDC has created awareness among students and faculty about importance of entrepreneurship as one of the avenues after graduation and instill hope among students that they can convert their ideas into products.

- Students have developed an innovative attitude and have student innovators in the campuswho have exhibited their products in Agri Expo, Kovai Vizha etc.
- Our successful alumni include Ms. B. Sruthi (Founder and CEO, Dhanwantari Biomedicals Pvt. Ltd) & Ms.Yuvarni -Social Innovators of KIIT (Kalinga Institute of Industrial Technology, TBI (Technology Business Incubators) Odisha. Incubation

Product Launching ceremony- "Sahayatha- Wheel chair with smart defecation cleansing assistive device for immobile population" by Mrs. Sruthi B (BMIE), Alumni Entrepreneur (Dhanwantri Biomedical Pvt. Ltd., Coimbatore)

"Horticultural therapy garden with assistive Technology structures for differently abled children-An Innovative idea for Social Entrepreneurship" by Dr. G .K.Beela, Professor and Head, Department of Community Science, Kerala Agricultural University , and Former Director, Centre for Disability studies Thiruvananthapuram, Kerala.

CENTRE for MANUFACTURING and EMERGING TECHNOLOGIES (CMET)

Front View of CMET

The Centre for Manufacturing and Emerging Technologies (CMET) facility is created in Campus II (Ayya Avinashilingam Nagar, Varapalyam, Coimbatore - 641108) with around 2500 square feet. The center has contemporary equipment, machinery, design software and testing facilities. The center will cater to carry out research activities, consultancy and product development in the emerging areas.

Objectives

- Technology Generation
- Partnership with Academia / Institutions and Industries
- Providing Consultancy and Support
- Applying for Research Funding preferably for Product Development

Areas of Research

- Advanced Robotics and controls
- Material Processing and Modeling including Nano fluids
- Big data analytics
- Preservation through natural resources like spices and herbs
- Thick film Technology
- Additive Manufacturing
- Energy Conversion and storage
- Cyber security and Forensic
- Food Processing and Packaging
- Reuse of building demolished waste

Facilities Available

a. **Design and Analysis facility** consists of Simulation and design software tools, prototyping hardware, analytic instruments for various applications.

b. **Fabrication and Synthesis facility** consists of chemical synthesis, food analysis and screen-printing facility.

Activities at CMET

The centre conducts workshops and training programmes along with the departments of School of Engineering and industry experts regularly.

Hands-on session – Screen Printing on Textiles

The Department of Printing Technology and Center for Manufacturing and Emerging Technologies, School of Engineering organised one-day workshop on "Screen Printing on Textiles" along with Sardar Vallabai Patel International School of Textiles & Management on 07.11.2022. II, III, and IV B.E. PT students (22 nos.) and 90 participant from Sardar Vallabai Patel International School of Textiles & Management participated in this Workshop.. Screen Printing concepts were demonstrated and hands-on training on screen printing on textiles was given to students. The participants learnt how to screen print on textile clothing.

Webinar on "Engineering Aspects of 3D Printing"

A webinar on "Engineering Aspects of 3D Printing" was conducted on February 3rd, 2023 in association with Skill-Lync, Bangalore, Department of Biomedical Instrumentation Engineering and Centre for Manufacturing and Emerging Technologies, for the students of all departments. The concepts of 3D printing techniques, namely Stereo Lithography (SLA), Fused Deposition Modeling (FDH), and Multi Jet Fusion (MJF) was demonstrated using videos. In the workshop participated 200 students learnt the basics of 3D printing.

In continuation of the webinar workshop on "3D Printing for Medical and Robotics Applications" was conducted during March 14thand 15th, 2023 at Center for Manufacturing and Emerging Technologies in association with Meds by Healthcare and Engineering Solutions, Coimbatore, Department of Biomedical instrumentation Engineering. About 60 students from School of Engineering participated. The workshop aimed at exploring the features of 3D printer, its applications in various field and process of designing models. Organ printing and production of human organs integrated with biocompatible microfluidics to create complex structures were discussed in detail. Hands on session on designing models using Ultimaker Cura software, 3D Slicer and Mesh Mixer was given to students. As an outcome of the workshop students actively created CMET keychain, a supportmodel for the finger using software and printed it using the 3D printer URU MAX.

Ammaiyappan Auditorium

Cafeteria

Indian Bank Ext. Counter

Reprographic Facility

Transportation Facility

Stationery Stores

FACILITIES ON THE CAMPUS

- Bank and ATM
- Stationery shop and Reprographic centre to cater to all the requirements of the students
- Delicious and nutritious menu with fresh fruit juices in the Cafeteria!
- Transport facilities for day scholars living in and around the city.
- The orchard can be plundered by students relishing the mangoes, guavas, almonds,gooseberries, etc.!
- Natchathira Vanam a scenic place where learners can relax and enjoy with their friends.
- Solar heaters to supply power to the hostel kitchen.
- The Computer Infrastructure and Maintenance Cell of School of Engineering Manages the computer facilities, networking infrastructure and e-surveillance Facility.
- A well-designed Ammaiyappan Auditorium to accommodate very large gatheringsand events.
- A spacious Gym equipped with a comprehensive range of equipment and machines toimprove the physical stamina of the students.

Gymnasium to keep Fit and Healthy

HOSTEL

- On campus hostel is a home away from home set in serene, picturesque surroundings for students.
- Tasty and hygienic vegetarian food, Secure and safe environment for girls.
- Wi-Fi facility
- The atmosphere and schedule enunciate in students the religious faith by attending prayer both in the morning and evening
- Lady Doctor visits the hostel every evening and examination room with First aid medical facility for emergency situations.
- Potable drinking RO water.
- Hot water for bathing and washing.

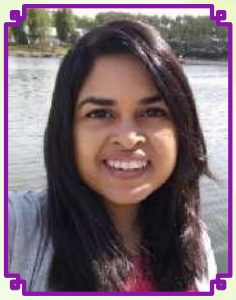
Prayer Hall

ALUMNI ASSOCIATION

Alumni are one of the four pillars of any institution and serve as Ambassadors, their continued relationship with the School of Engineering is very important. Thanks to the Alumni Association which has facilitated fostering of an everlasting bond with the faculty. Alumni Association maintains up-to-date information about the whereabouts of the alumni scattered in different countries. Our alumni support the faculty by delivering lectures, offering placement and by motivating the students to become entrepreneurs.

PROMINENT ALUMNI

Gowri Rao Krishnamurthy
Product Manager at Face book,San Francisco, California



Ms. Shilpa Gupta
Scientist, European Satellites, Europe

Ms. Aashika Banu
Senior Civil Engineer
Cast Laborataries, PTE Ltd, Singapore

Ms. S.P. Dharshana
Vice President - Operation Denta Global India Pvt. Ltd., Chennai

Ms. Gayathri Madheswaran
Quality control Manager & QMS Lead Auditor
Rashid Printers, United Arab Emirates

Janani Nagapoorani V
Quess Corp Ltd.,
Ultratech Cement Ltd. Chennai

Dr. Sumi Singh
Senior Machine Learning Engineer, Missouri, USA.

Mrs. P.N. Aishwarya
Assistant Examiner of Patents and Designs, (Group 'A' Gazetted), Government of India

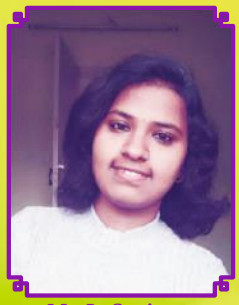
Mrs. Saranya Venkattaramen
Project Manager, Bosch Global Software Technologies, Coimbatore.

Madhumitha.R
Manufacturing Executive, ITC Ltd.

Srilakshmi.A
Associate analyst, Zifo RnD Solutions

L.S. Snekha
VWR Avantor, Junior Associate

Ms. S. Keerthana
Supervisor Technical Operation
Currency Note Press, Nashik



Ms. L. Sanjana
Founder, LS Traineeship

Ms. Jana Naga Poorani V
Senior Manager,
Aditya Birla Group,
Ultratech Cement Ltd, Coimbatore

Ms. P. Vijaya Suganthi, Branch Manager, Government Press, Salem

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