



E-TROLTRONICS

EIE NEWSLETTER

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VISION OF THE INSTITUTE

The vision of the college is to become a technical university of International Standards through continuous improvement.

MISSION OF THE INSTITUTE

Kumaraguru College of Technology (KCT) is committed to providing quality Education and Training in Engineering and Technology to prepare students for life and work equipping them to contribute to the technological, economic, and social development of India. The College pursues excellence in providing training to develop a sense of professional responsibility, social and cultural awareness and set students on the path to leadership.

VISION OF THE DEPARTMENT

The Department of Electronics & Instrumentation Engineering (E&I) envisions a holistic education that transforms the learners into responsible engineers which shall enable them to identify significant problems both in industry and society to arrive at creative and sustainable solutions through collaborative team efforts.

MISSION OF THE DEPARTMENT

The Department of Electronics & Instrumentation Engineering (E&I) aims to

- Implement modern andragogical approach in academics, innovative research initiatives and collaborative projects that shall ethically address the societal needs.
- Develop knowledge and skills required to excel in manufacturing, automation, and allied industries on a global platform.
- Expand the knowledge for higher studies and get inspired for lifelong learning.

**Dr. DINESH KUMAR V****Asst Prof & Head**

HOD's DESK:

Electronics & Instrumentation Engineering established in the year 2006 is a specialized branch of Electrical and Electronic Engineering, which focuses on the principle and operation of field instruments SCADA, DCS, PLC'S and process control systems which are used in design and configuration of automated systems. These engineers work in industries with automated processes, such as chemical

or manufacturing plants, with the goal of improving system productivity, reliability, safety, optimization, and stability. Within a short period, we have established all our laboratories and centres of excellence, which are required for the curriculum and several specialized equipment and software, which help the students to do their real time projects. We have placed our students in core industries like Yokogawa, Bosch, Data Patterns, TVS, Tsolve, Saipem, ECON, etc. Many of our alumni have successfully cracked CAT and GATE to gain entrance into the high portals of higher education. Also, we have our students pursuing their higher studies in US, UK, Germany, and Australia.

PROGRAM EDUCATIONAL OBJECTIVES

Graduates of B.E (Electronics & Instrumentation Engineering) will

PEO-1	Excel in technical and professional career with core competence in automation
PEO-2	Possess the passion for professional development by continuous learning in allied Engineering and Management fields.
PEO-3	Engage in resolving industrial and social issues using contemporary tools
PEO-4	Exhibit professionalism and ethical attitude towards resolving automation issues to society at large.



PROGRAMME OUTCOMES

Graduates of B.E (Electronics & Instrumentation Engineering) will be able to:

PO 1	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO 2	Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO 4	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO 5	Create, select, and apply appropriate techniques, resources and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
PO 6	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice
PO 7	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO 8	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO 9	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.



PO 10	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO 11	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO 12	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAMME SPECIFIC OUTCOMES

Graduates of B.E (Electronics and Instrumentation Engineering) will be able to:

PSO 1	Develop, analyse, and calibrate Instruments and electronic systems for various real-world applications adhering to ISA ethical codes.
PSO 2	Integrate programmable logic controllers (PLC), distributed control systems (DCS) for manufacturing and processing systems and gain proficiency in relevant software tools.





ABOUT THE DEPARTMENT

Started in the year 2006, the Department of Electronics & Instrumentation Engineering is running a 4-year undergraduate programme in Electronics & Instrumentation Engineering. Since its inception, the Department has grown in leaps and bounds with the state of art infrastructure. Yokogawa Centre of Excellence, KCT-FLUKE Centre of Excellence in Calibration, Siemens PLC Automation Laboratory are some of the major centres operational in addition to Advanced Process Control and Computerised Sensors laboratories. The Department has a team of well qualified, dedicated Faculty members with vast experience in industrial and research background. The Department is involved in active Industrial consultancy services for neighbouring Industries in the field of Automation. Certified Calibration for Electro-Technical/Thermal/Pressure Instruments are some of the prominent consultancy services. Major and minor projects funded by government bodies and Industries are focused on solving industrial needs. Our association with the Professional bodies ISA, ISOI, IEEE, ISTE, IEI and CSI is playing a significant role in enriching the quality of curriculum.





DEPARTMENT ACTIVITIES

JUNIOR INTERACTION

On the 3rd of May 2023, an impactful event unfolded within the department of EIE. The dedicated members of the department's association orchestrated an engaging interaction session, strategically uniting both seasoned seniors and enthusiastic juniors. This event served as a remarkable platform, enabling first-year students to navigate the complex landscape of the department's functions and undertakings. During the session, a profound introduction to the department's association itself was provided. This introduction encompassed the association's pivotal role in fostering a cohesive academic environment, as well as its contributions to extracurricular activities. The seniors, well-versed in the intricacies of the department's subjects, generously shared their expertise, addressing a myriad of questions posed by the juniors. The resulting exchange of knowledge facilitated a clear understanding of coursework and dispelled any uncertainties harboured by the newcomers. A particularly illuminating aspect of the session involved shedding light on the significance of renowned organizations such as IEEE and ISA . The juniors had the privilege of gaining valuable insights into these esteemed organizations, thereby broadening their horizons and encouraging a heightened engagement with the field of electronics and instrumentation.



ALUMNI TALK ON ENTREPRENEURSHIP

On May 15, 2023, the Department association of EIE sponsored an alumni talk event focused on entrepreneurship. This event had an alumni to share insights and experiences with current students. Mr. Guru Krishna. S, an accomplished alumnus from the 2012-2016 batch of EIE department, who had successfully ventured into the entrepreneurial realm. As the founder of Coimbatore-based "Daily Grubs," he exemplified the spirit of innovation and risk-taking. During his presentation, Guru Krishna. S provided valuable insights into the world of business, shedding light on both its challenges and rewards. His personal journey from being a student in the EIE department to becoming a thriving entrepreneur was particularly inspiring for the attendees. Through his words, students gained a comprehensive understanding of the entrepreneurial landscape, learning how to tackle obstacles, identify opportunities, and make informed decisions. The event significantly contributed to the development of students' skill sets and competencies, which are valuable for both their personal growth and future careers. His discourse encouraged creative and critical thinking, a crucial aspect of entrepreneurial success. By sharing his experiences and strategies, he equipped students with tools to navigate complex business scenarios, fostering problem-solving abilities and a willingness to undertake calculated risks.





Student Zone –Conference Paper Presenting

1. International Conference attended Faculty with Students, Athappan V, Saravanabalaji M, Muthuramalingam E, Ranganathan S 19BEI029- Shanthini M K, International Conference attended “Intelligent Controller Design for a Non-Linear Process”, on 16.06.2023.
2. International Conference attended Faculty with Students, Athappan V, Muthuramalingam E, Saravanabalaji M, , Ranganathan S, 19BEI034 - Piriyaadharshini D, International Conference attended “Health Monitoring Of E-Vehicle Battery Using Machine Learning”, on 16.06.2023.
3. International Conference attended Faculty with Students, Saravanabalaji M, Athappan V, Ranganathan S, Muthuramalingam E, 20BEI047 - Sneha S, International Conference attended “Experimental Investigation into Pressure Regulation for Compensating Acoustic Resonance Using Model Predictive Control”, on 16.06.2023.

Student Zone – Journal Publication from student projects

1. Pavin P S, Nirmal Raj N, Journal Publication from student projects, “Smart Super Hydrophobic Textiles Utilizing Long-Range Antenna Sensor for Hazardous Aqueous Droplet Detection and Prevention”, June 2023.
2. Dakshin D S, Arjun, Journal Publication from student projects, “Review on several weed control methods”, June 2023.
3. G Diyaneshwaran, K Ravivarma, S Shobana, M sneha, NS Monessa, Journal Publication from student projects, “Review On Foetal Position Detection Using Different Techniques”, June 2023.

