MES College of Engineering Kuttippuram

Vision

To develop an institution of international standing to provide quality education in Engineering Technology and Management and empower students to face challenges, taking care of societal responsibilities.

Mission

- **To provide state-of-art knowledge and skills to serve industry and society with dedication.**

- **To develop creativity and innovative research capabilities in the students, making them capable of useful contributions in the creation of knowledge society.**

- **To inculcate leadership qualities, human values and social responsibilities in the youth to make them leaders in nation building**.

Department of Electronics and Communication Engineering
Vision

To be a centre of excellence in Electronics and Communication Engineering education and research to produce globally competent and socially committed professionals.

Mission

To impart high quality education in Electronics and Communication Engineering.

To provide best facilities, infrastructure and training to students and faculty members and thereby create an ambience to excel in engineering education and research.

To have adequate mechanisms to enhance understanding of implementation of theoretical concepts in practical situations of industrial and social relevance.

Programme Educational Objectives (PEOs)

After 3-5 years of graduation our students will be able to do the following

> **PEO1: Demonstrate engineering knowledge and competency in professional careers in industry and / or academia.**
>
> **PEO2: Design, develop, test and analyze hardware and / or software systems for solving problems in a rapidly changing global economic and technological environment.**
>
> **PEO3: Pursue lifelong learning in its diverse forms such as higher education, certifications and research.**
>
> **PEO4: Function as an ethically and socially responsible team leader / member by effectively communicating professional knowledge among peers, customers and supervisors.**

PROGRAM OUTCOME (POs)

Engineering Graduates will be able to:

1. **Engineering Knowledge** : Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
2. **Problem Analysis**: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
3. **Design/development of solutions**: 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.
4. **Conduct investigations of complex problems**: 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.

5. **Modern tool usage**: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
6. **The engineer and society**: 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.
7. **Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
9. **Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
10. **Communication**: 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.
11. **Project management and finance**: 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.
12. **Life-long learning**: 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.

PROGRAM SPECIFIC OUTCOME (PSOs)

PSO1:   **An ability to design, develop and analyze moderately complex analog and digital electronics circuits and systems.**

PSO2:   **An ability to design, develop and analyze communication and/or signal processing systems with modern tools and processes.**

PSO3:   **An ability to acquire, present and document knowledge in**

Electronics and Communication Engineering and related areas.

PSO4: **An ability to pursue higher education in reputed institutions, develop entrepreneurial skills to set up small scale industries in Electronics and Communication Engineering and related fields to serve the society at large.**