Sri Krishna

College of Engineering,

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)

Programme Outcomes (POs) and Course Outcomes (COs)

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ECE

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PE01	To enable graduates to pursue research, or have a successful career in academia or industries associated with Electronics and Communication Engineering, or as entrepreneurs.
PE02	To provide students with strong foundational concepts and also advanced techniques and tools in order to enable them to build solutions or systems of varying complexity.
PE03	To prepare students to critically analyse existing literature in an area of specialization and ethically develop innovative and research oriented methodologies to solve the problems identified.

PROGRAMME OUTCOMES (POs)

PO1	**Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems
PO2	**Problem analysis:** Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	**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.
PO4	**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.
PO5	**Modern tool usage:** 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.
PO6	**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.
PO7	**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.
PO8	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9	**Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**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 OBJECTIVES (PSOs)	
PSO1	To analyse, design and develop solutions by applying foundational concepts of electronics and communication engineering.
PSO2	To apply design principles and best practices for developing quality products for scientific and business applications.
PSO3	To adapt to emerging information and communication technologies (ICT) to innovate ideas and solutions to existing/novel problems.

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CIVIL

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PE01	To prepare students for successful careers in Civil Engineering field that meets the needs of Indian and multinational companies.
PE02	To develop the confidence and ability among students to synthesize data and technical concepts and thereby apply it in real world problems.
PE03	To develop students to use modern techniques, skill and mathematical engineering tools for solving problems in Civil Engineering.
PE04	To provide students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to formulate, solve and analyse engineering problems and to prepare them for graduate studies.
PE05	To promote students to work collaboratively on multi-disciplinary projects and make them engage in life-long learning process throughout their professional life.

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PROGRAM SPECIFIC OBJECTIVES (PSOs)

PSO1	Knowledge of Civil Engineering discipline Demonstrate in-depth knowledge of Civil Engineering discipline, with an ability to evaluate, analyse and synthesize existing and new knowledge.
PSO2	Critical analysis of Civil Engineering problems and innovation Critically analyse complex Civil Engineering problems, apply independent judgment for synthesizing information and make innovative advances in a theoretical, practical and policy context.
PSO3	Conceptualization and evaluation of engineering solutions to Civil Engineering Issues Conceptualize and solve Civil Engineering problems, evaluate potential solutions and arrive at technically feasible, economically viable and environmentally sound solutions with due consideration of health, safety, and socio cultural factors

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CSE

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PE01	Apply their technical competence in computer science to solve real world problems, with technical and people leadership.
PE02	Conduct cutting edge research and develop solutions on problems of social relevance.
PE03	Work in a business environment, exhibiting team skills, work ethics, adaptability and lifelong learning.

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PROGRAM SPECIFIC OBJECTIVES (PSOs)

PSO1	Exhibit design and programming skills to build and automate business solutions using cutting edge technologies.
PSO2	Strong theoretical foundation leading to excellence and excitement towards research, to provide elegant solutions to complex problems.

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EEE

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PE01	Find employment in Core Electrical and Electronics Engineering and service sectors.
PE02	Get elevated to technical lead position and lead the organization competitively.
PE03	Enter into higher studies leading to post-graduate and research degrees. Become consultant and provide solutions to the practical problems of core organization.
PE04	Become an entrepreneur and be part of electrical and electronics product and service industries.

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PROGRAM SPECIFIC OBJECTIVES (PSOs)

PSO1	**Foundation of Electrical Engineering:** Ability to understand the principles and working of electrical components, circuits, systems and control that are forming a part of power generation, transmission, distribution, utilization, conservation and energy saving. Students can assess the power management, auditing, crisis and energy saving aspects.
PSO2	**Foundation of Mathematical Concepts:** Ability to apply mathematical methodologies to solve problems related with electrical engineering using appropriate engineering tools and algorithms.
PS03	**Computing and Research Ability:** Ability to use knowledge in various domains to identify research gaps and hence to provide solution which leads to new ideas and innovations.

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MECHANICAL

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PE01	Effectuating success in careers by exploring with the design, digital and computational analysis of engineering systems, experimentation and testing, smart manufacturing, technical services, and research.
PE02	Amalgamating effectively with stakeholders to update and improve their core competencies and abilities to ethically compete in the ever-changing multicultural global enterprise.
PE03	To encourage multi-disciplinary research and development to foster advanced technology, and to nurture innovation and entrepreneurship in order to compete successfully in the global economy.
PE04	To globally share and apply technical knowledge to create new opportunities that proactively advances our society through team efforts and to solve various challenging technical, environmental and societal problems.
PE05	To create world class mechanical engineers capable of practice engineering ethically with a solid vision to become great leaders in academia, industries and society.

PROGRAMME OUTCOMES (POs)

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PROGRAM SPECIFIC OBJECTIVES (PSOs)

PSO1	Apply the knowledge gained in Mechanical Engineering for design and development and manufacture of engineering systems.
PSO2	Apply the knowledge acquired to investigate research-oriented problems in mechanical engineering with due consideration for environmental and social impacts.
PS03	Use the engineering analysis and data management tools for effective management of multidisciplinary projects.