

SREE DATTHA INSTITUTE OF ENGINEERING & SCIENCE

Accredited by NAAC, Approved by AICTE, Affiliated to JNTUH
Nagarjun Sagar Road, Sheriguda(V), Ibrahimpatnam(M), Ranga Reddy Dist- 501510 (TS)

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

PROGRAM OUTCOMES

POs describe what students are expected to know or be able to do by the time of graduation from the program. The Program Outcomes of UG in Electrical & Electronics are:

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, research literature, and analyze 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, 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.

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PROGRAM EDUCATIONAL OBJECTIVES

Graduates of UG EEE program will be able to

- PEO1: Apply mathematical, scientific and engineering fundamentals to solve engineering problems and pursue higher studies.
- PEO2: Analyse, design, create novel products and sustainable solutions for the real-life problems with continuous learning
- PEO3: Exhibit the professional and ethical attitude, effective communication skills, interpersonal skills to relate engineering issues to broader social context.

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PROGRAM SPECIFIC OUTCOMES

The students will have the ability to:

- PSO1: Develop models, analyse and assess the performance of different types of generation, transmission, distribution and protection mechanisms in power systems.
- PSO2: Design, develop, analyse and test electrical and electronics systems; deploy control strategies for power electronics related and other applications.
- PSO3: Measure, analyse, model and control the behaviour of electrical quantities associated with constituents of energy or allied systems.