

Department of Electrical Engineering

B.Tech. Electrical Engineering (Undergraduate Programme)

A well defined curriculum is essential to give a clear and concise overview of the core fundamentals of the subject. Students are made aware of the structure and layout of how the course instructor will proceed, thus giving them a chance to prepare beforehand.

Programme Educational Objectives (PEO)

Graduates will be able to

1. Solve engineering\industrial problems by employing various resources and modern tools.
2. Design products to meet social, economic and environmental demands by innovative ideas.
3. Solve complex problems and take up research and development work in applied fields.
4. Communicate effectively through oral and written presentation of technical reports, adopting lifelong learning with integrity and ethics, and they will have interpersonal skills required to lead and nurture diverse team.

Programme Outcomes (PO)

The engineering graduates will be able to do

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.

PSO

At the end of the program, students will have the ability to:

1. Develop models, analyze and assess the performance of different types of generation, transmission, distribution and protection mechanisms in power systems
2. Design, develop, analyze and test electrical systems; deploy control strategies for various applications.
3. Measure, analyze, model and control the behavior of electrical quantities associated with constituents of energy or allied systems.

Course Outcomes (CO)

SEMESTER I & II (pdf/12.pdf)	SEMESTER III (pdf/3.pdf)
SEMESTER IV (pdf/4.pdf)	SEMESTER V (pdf/5.pdf)
SEMESTER VI (pdf/6.pdf)	SEMESTER VII (pdf/7.pdf)

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