Vision and Mission of Department

VISION:

To be an Electrical Engineering program of the first choice by the aspiring students and prospective employers by implementing world class education practices.

MISSION:

To implement Outcome Based Education Philosophy effectively by,

1. Adopting dynamic academic curricula and implementing innovative teaching learning processes and research practices.
2. Providing opportunities to the students for the development of professional skills.
3. Nurturing critical thinking and creativity in students.
4. Inculcating in students the life-long learning attitude with sensitivity towards society and environment.

B. Tech. Electrical Engineering

(Program Code: 1-1358137382)

Program Educational Objectives (PEOs)

Graduates of Electrical Engineering Programme within a span of few years of their Graduation will:

PEO1	Pursue successful career in diversified sectors like industry, government organizations, entrepreneurship and / or higher education in Electrical

	Engineering or other fields of their interest.
PEO2	Contribute as active members of the society as an individual or in a team, to analyse, design and implement solutions to solve real life problems with due concern for the environment
PEO3	Exhibit leadership skills, effective communication skills and life-long learning needed to succeed in a multidisciplinary environment with commitment to ethical standard.

Programme Outcomes (POs)

The students after successfully completing this programme will have an ability to:

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 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 modeling 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.

PSO1: Critically understand and apply the concepts of generation, transmission and distribution for Electrical Power System Operation, Control and Protection.

PSO2: Gain in-depth knowledge and use advanced techniques to operate/ control electrical machines/ drives used in various industries.

M. Tech. Power System Engineering

(Program Code: 1-1358137377)

Program Educational Objectives (PEOs)

Graduate of PG programme within three to five years of their graduation in Electrical Power Systems Engineering will...

PEO1: Demonstrate the domain expertise and technical leadership with good communication and professional skills to analyze, synthesize, evaluate and execute real life projects in electrical and allied fields.

PEO2: Contribute individually or in team, to the development of engineering technology leading to innovation in various domains of electrical Power systems engineering using modern tools.

PEO3: Exhibit lifelong learning attitude, ethical behavior and societal responsibility.

Programme Outcomes (POs)

Post graduates on successful completion of the programme will be able to:

PO1: Apply appropriate research methodologies and demonstrate higher order skill individually, in groups to the development works in the domain of Power System Engineering to solve practical problems. (Research Skill)

PO2: Communicate with engineering community and society at large, confidently and effectively, through technical report, documentation and presentation, by adhering to appropriate standards. (Communication)

PO3: Demonstrate degree of mastery in Power System Engineering at a level higher than the requirements in the appropriate bachelor program. (Scholarship of Knowledge)

PO4: Analyze complex problems in Power System Engineering with an ability to compare, contrast, predict and evaluate wide range of potential solutions theoretically and practically with the aid of modern engineering techniques/tools. (Critical Thinking and Problem Solving)

PO5: Demonstrate ethical behavior with professional code of conduct, life-long learning, effective managerial skills, and contribute to sustainable development of society (Ethical Practices, Social responsibility, managerial skills and Life-long learning)

PO6: Demonstrate proficiency in latest trends and technologies as applied to the field of power system engineering and contribute to innovation. (Programme specific outcome)

M. Tech. Control System Engineering

(Program Code: 1-1358137400)

Program Educational Objectives (PEOs)

Graduate of PG programme within three to five years of their graduation in Electrical Control Systems Engineering will.....

PEO1: Demonstrate the domain expertise and technical leadership with good communication and professional skills to analyze, synthesize, evaluate and execute real life projects in electrical and allied fields.

PEO2: Contribute individually or in team, to the development of engineering technology leading to innovation in various domains of electrical control systems engineering using modern tools.

PEO3: Exhibit lifelong learning attitude, ethical behavior and societal responsibility.

Programme Outcomes (POs)

Post graduates on successful completion of the programme will be able to:

PO1: Apply appropriate research methodologies and demonstrate higher order skill individually, in groups to the development works in the domain of Control System Engineering to solve practical problems. (Research Skill)

PO2: Communicate with engineering community and society at large, confidently

and effectively, through technical report, documentation and presentation, by adhering to appropriate standards. (Communication)

PO3: Demonstrate degree of mastery in Control System Engineering at a level higher than the requirements in the appropriate bachelor program. (Scholarship of Knowledge)

PO4: Analyze complex problems in Control System Engineering with an ability to compare, contrast, predict and evaluate wide range of potential solutions theoretically and practically with the aid of modern engineering techniques/tools. (Critical Thinking and Problem Solving)

PO5: Demonstrate ethical behavior with professional code of conduct, life-long learning, effective managerial skills, and contribute to sustainable development of society (Ethical Practices, Social responsibility, managerial skills and Life-long learning)

PO6: Demonstrate proficiency in latest trends and technologies as applied to the field of control system engineering and contribute to innovation. (Programme specific outcome)
