VISION & MISSION

A. University: (PDPU)

VISION:

To be an internationally renowned & respected institution imparting excellent education & training based upon the foundation of futuristic research & innovations.

MISSION:

1. Undertake unique obligation for education in energy engineering and management with special responsibilities in domain specific aspects of energy & infrastructure.
2. Seek to nurture students of extraordinary motivation and ability and prepare them for life-long learning and leadership in an increasingly knowledge driven world.
3. Envisage to establish institutes of excellence in education, competitive edge in research and real time relevance with futuristic thrusts in offering of programmes and undertaking of activities and projects.

B. Institute: (SoT)

VISION:

To be an internationally renowned and recognized institute imparting technical education, research & training for societal impact and sustainable development.

MISSION:

1. Undertake unique obligation for education in energy and engineering with special responsibilities in domain specific aspects of energy & infrastructure.
2. Seek to nurture students of extraordinary motivation and ability and prepare them for life-long learning and leadership in an increasingly knowledge driven world.
3. Envisage to establish departments for excellent education, cutting edgeresearch and training by offering programmes, to address futuristic needs.

C. Electrical Engineering Department:

VISION:

To be recognized globally for excellence in education, research and training in the field of Electrical Engineering by preparing graduates for tomorrow creating high societal impact.

MISSION:

1. To offer good quality under-graduate, post-graduate and doctoral programmes for preparing globally competitive graduatesin electrical engineering.
2. To provide state-of-the-art resources that contribute to achieve excellence in teaching-learning, research and skill development activities.
3. To impart knowledge driven, technologically delivered and research augmented excellent education.
4. To motivatethe students for life-long learning and to inculcate leadership qualities in an increasingly knowledge driven world.

Mission Element	Mission Component
M1	Globally Competitive (Energy and Engineering)
M2	Skill Development
M3	Excellent Education
M4	Life-Long Learning
M5	Leadership

D. Program Educational Objectives (PEOs):

1. To prepare highly competent graduates with strong foundation in engineering and technology for successful career in industries, academics and research organizations.
2. To prepare the graduates with ability to identify, analyze, design and solve complex electrical engineering problems, based on application of basic sciences, mathematics and fundamentals of electrical engineering.
3. To prepare fundamentally strong graduates having broad knowledge in electrical engineering that can become innovators or entrepreneur to solve industrial and societal challenges.
4. To prepare graduates with holistic education approach that they should contribute ethically in multicultural and multidisciplinary groups to develop sustainable solutions for global, environmental and social issues

E. Program Outcomes (PO):

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.

F. Program Specific Outcomes (PSOs)

1. PSO1: To identify, formulate, design and investigate various problems related to electrical circuits, power electronics, electrical machines and power systems by applying fundamental knowledge of engineering and science

2. PSO2: To demonstrate proficiency in usage of modern hardware & software tools to model, design, simulate and analyze electrical systems for solving real world multi-disciplinary problems

3. PSO3: To contribute in development of smart systems, modern grid and clean energy system for societal and environmental benefits