2.6.1 *Program Outcomes and*

Program Specific Outcomes

Program Outcomes

VISION,MISSION OF INSTITUTE

Vision of Institute

To evolve and flourish as a progressive centre for modern technical education, stirring creativity in every student leading to self-sustainable professionals, through holistic development; nurtured by strength and legitimate pride of Indian values and ethics.

Mission of Institute

o To provide industry oriented quality education.

o To provide holistic environment for overall personal development.

o To foster relationship with other institute of repute, alumni and industry.

PROGRAM OUTCOMES (PO)

Engineering Graduates will be able 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.

Program Specific Outcomes

COMPUTER ENGINEERING DEPARTMENT

Vision:

To contribute significantly towards industry and research oriented technical education leading to self-sustainable professionals and responsible citizens.

Mission:

1. To provide quality and application oriented education to meet the industry requirements.
2. To prepare technically competent, ethical, socially committed professionals with good leadership qualities.
3. To facilitate an opportunity to interact with prominent institutes, alumni and industries to understand the emerging trends in computer technology.

Program Educational Objectives (PEO):

Graduates will be able to:

1. Excel in professional career and higher education in the thrust area of Computer Engineering.
2. Develop software products by adapting the trends in technology to solve real life problems.
3. Exhibit ethical practices, professional conduct and leadership qualities.

Program Specific Outcomes (PSO):

1. To comprehend, analyze and develop solutions in the areas of Web Technologies, Data Science, Networking and System Security.
2. To inculcate self-learning and research attitude for excelling in Software Development.

MECHANICAL ENGINEERING DEPARTMENT

Vision:

To provide a vibrant academic, research and industrial environment for creating self-sustainable professionals and responsible citizens.

Mission:

* To provide state-of-the-art infrastructure and quality education.
* To generate opportunities for students to provide industrial exposure.
* To imbibe team spirit and entrepreneurial skills.

Program Educational Objectives (PEO):

Graduates will...

* Be able to use effectively Engineering Knowledge and modern tools in the field of Core Mechanical Engineering.

* Have interdisciplinary competence in areas like Mechatronics and CAD/CAM/CAE.
  Be able to demonstrate adequate competency and creativity to take up corporate challenges.

* Be able to pursue higher studies and entrepreneurship.

Program Specific Outcomes (PSO):

Graduates will be able to...

* Apply knowledge in the domain of Design, Thermal and Manufacturing sciences to solve Engineering Problems.

- Use appropriate tools and techniques to solve problems in the field of Mechanical Vibration and CAD/CAM/CAE.

ELECTRONICS AND TELECOMMUNICATION ENGINEERING

Vision:

To create professionally competent, research oriented, disciplined, socially and environmentally sensitive Electronics and Telecommunication engineers.

Mission:

1. To achieve academic excellence by imparting quality education and training in science, electronics, and telecommunication engineering fields.

2. To create an environment for overall personal development of the students including creative and innovative thinking, team work, professional ethics, and improved communication skills.

3. To create awareness among the students about their social, environmental and ethical responsibilities to make the world a better place.

Program Educational Objectives (PEO):

Graduates of the program…

1. Will demonstrate the core competency in electronics, telecommunication, and allied fields.

2. Will have successful professional careers at the national and international levels.

3. Will be competent and capable of pursuing lifelong learning in technical and allied fields.

4. Will be responsible citizen of the society and will adhere to professional ethical practices.

Program Specific Outcomes (PSO):

1. Apply knowledge in signal processing, communication theory, and microwave engineering for analysis of telecommunication network for services such as voice, data, image & video transport.

2. Analyse, design, and synthesize electronic components based circuits, embedded systems - related hardware / software, and VLSI circuits.

ELECTRICAL ENGINEERING

Vision:

To evolve as a progressive centre for modern technical education in the field of Electrical Engineering to produce self-sustainable professionals through value based education

Mission:

1. To provide modern technical education in the area of Electrical Engineering.
2. To collaborate with industries and institutes of repute to grow progressively.
3. To provide holistic environment for the development of socially responsible citizens.

Program Educational Objectives (PEO):

Graduates will be able to…

1. Demonstrate core competency in the areas of power system, power electronics, machines, renewable energy and allied disciplines
2. Contribute to environmental sustainability through design, development and commissioning of green energy or clean energy systems
3. Excel in professional career and higher education with ethical values.

Program Specific Outcomes (PSO):

Graduates will be able to…

1. Comprehend and analyze the problems in power generation, transmission and distribution systems.
2. Acquire technical knowledge, skill and competency in development of Renewable energy system and contribute to energy efficiency

INFORMATION & TECHNOLOGY

Vision:

To become a leading center of excellence for quality education, advance research and development in the field of Information Technology to yield self-sustaining professionals.

Mission:

1. To provide industry oriented quality education and training to students related to cutting edge technologies in the field of information technology.
2. To promote multidisciplinary activities in students to serve society through innovative applications.
3. To promote entrepreneurship skills in students with overall personality development.

Program Educational Objectives (PEO):

Graduate will.......

1. Be able to adapt technological changes in the field of information technology.
2. Be able to excel in higher education and professional career.
3. Be able to demonstrate multidisciplinary and entrepreneurship skills.

Program Specific Outcomes (PSO):

1. Apply knowledge of Mathematics, Science and Information Technology to define, analyse, build, test and integrate subsystems to provide solutions for real life problems.
2. Inculcate self-learning and research attitude to offer IT services for sustaining as excellent professional or entrepreneur.