



CURRICULUM ESSENTIALS

INFORMATION TECHNOLOGY

VISION

To develop responsible citizens who would 'think global and act local' and become the change agents of society to meet the challenges of future.

DEPARTMENT MISSION

M1: To address multi-various aspects of academic growth in Information Technology

M2: To disseminate advanced concepts for pursuing research and development oriented activity in Information and Communication Technology

M3: To guide the students to become successful IT Professionals with relevant skills

M4: To motivate the students to explore their capabilities for utilizing there intellectual potential.

Program Educational Objectives (PEO)

PE01: The students should be able to apply mathematical, scientific, electronic and computer engineering principles to identify, understand, evaluate and formulate solutions to meet industry and societal needs.

PE02: The students should utilize their aptitude, expertise and experience to solve industry oriented problems regarding Information Technology field and would lead in their professional area with their economic and managerial skill and field oriented knowledge.

PE03: The students should be able to nourish their research skill and involving themselves to current research oriented works.

PE04: The students will be provided with an educational foundation that prepares them to become entrepreneurs in the field of development and deployment of software, information systems and information management tools.

PE05: The students will learn to interact properly with their peers in other disciplines in industry and society to establish compatibility as well as inter-industrial relationship which would help to contribute to the economic growth of the country.

Program Outcome (PO)

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 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.

Program Outcome (PO)

P07. 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.

P08. ETHICS:

Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

P09. INDIVIDUAL AND TEAM WORK:

Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

P010. 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.

P011. 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.

P012. 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 (PSOs)

PS01: Analyze, design, simulate and implement computer hardware and software based systems and use basic analog /digital circuits for various computing and communication system applications and maintain such systems.

PS02: Design, develop, test and maintain software by problem identification analysis, algorithm construction and proper computation and coding to solve or fulfill a specified problem or requirement.

PS03: Design, develop and maintain internet technology based systems which would help in the betterment of the society in various dimensions like economy, security etc.

PS04: Develop the spirit to work in a team with others while keeping the sense of responsibility, value and ethics in mind and reflecting them to work.