

## SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY

(AUTONOMOUS)

(Approved by AICTE, New Delhi& Affiliated to JNTUA, Ananthapuramu)

(Accredited by NBA for Civil, EEE, Mech., ECE & CSE

Accredited by NAAC with 'A' Grade)

Puttur -517583, Chittoor District, A.P. (India)

## **Program Outcomes**

**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**

## **Civil Engineering**

**PSO1:** Ability to work with advanced construction materials and technologies in implementing various infrastructure construction projects.

**PSO2:** Ability to address the challenges such as protected drinking water, safe sanitation, pollution free environment and eco-friendly construction practices.

**PSO3:** Ability to design and execute water resource and irrigation projects harnessing sustainable development.

# **Electrical & Electronics Engineering**

**PSO1:** Analysis of Power Quality: Ability to acquire and analyze live power quality data using power quality analyzer.

**PSO2:** Analysis of Power Quality: Ability to acquire and analyze live power quality data using power quality analyzer.

**PSO3: Software Simulation:** Ability to design, simulate, and analyze the electrical machines and power systems through high-performance tools.

#### Mechanical Engineering

**PSO1:** Able to apply mathematical and advanced CAD tools required for design analysis and manufacturing products.

**PSO2:** Getting employment in various industries and solving complex problems with systematic approach.

**PSO3:** Apply innovative skills to lead as an entrepreneur or automobile researcher.

### **Electronics & Communication Engineering**

**PSO1:** Ability to design and develop advanced electronic systems to solve real time problems.

**PSO2:** Demonstrate the ability to use cutting-edge technologies in analog, digital and wireless communication systems to contribute to eco-friendly solutions.

**PSO3**: Ability to work on Integrated Circuit technology in developing contemporary projects to serve the societal needs.

#### **Computer Science and Engineering**

**PSO1: Analysis & Design:** Ability to design, develop and deploy customized applications in all applicable domains using various algorithms and programming languages.

**PSO2:** Computational Logic: Ability to visualize and configure computational need in terms of hardware and software to provide solutions for various complex applications.

**PSO3: Software Development:** Ability to apply standard procedures, tools and strategies for software development.

#### Computer Science & Information Technology

**PSO1:** Graduates are able to Design, analyze and develop solutions to engineering problems in the field of Information Technology.

**PSO2:** IT Graduates should be able to Specify, design, develop and test software and hardware systems contributing to innovation and research in the field of Information Technology.

**PSO3:** Graduates are able to Develop IT-based solutions for tasks related to Research, Education, Training and/or E-governance.

#### Agricultural Engineering

**PSO1:** Identify and design sustainable solutions to solve agricultural engineering problems applying the knowledge of basic and engineering sciences.

**PSO2:** Pursue successful professional career in agro-industries, government organization, educational/ research/ extension institute adopting appropriate technology, resources and modeling.

**PSO3:** Adapt in a world of evolving technology with professional ethics and take lead roles in development of agricultural engineering and allied enterprises for betterment of society.

## **Master of Business Administration**

**PSO1:** Students should exhibit their knowledge of management principles, demonstrate their critical thinking, Problem solving skills and manifested their leadership skills

**PSO2:** Students should prove an awareness of their values shows sense of productivity and should evince their ability to recognize when change is needed and adapt to change.

PSO3: Post Graduates are able to Design, analyze and develop solutions to management problems in the field of management sciences

**PSO4:** Post Graduates are able to develop management-based solutions for the tasks related to Research, Education, Training and/or E-governance.

## **Master of Computer Applications**

**PSO1:** Understand, analyze and develop computer programs in the areas related to algorithms, Process and solutions for specific application development using appropriate data modeling concepts.

**PSO2:** Apply standard Software Engineering practices and strategies in software project development using open-source programming environment to deliver a quality product for business success.

**PSO3:** Be acquainted with the contemporary issues, latest trends in technological development and thereby innovate new ideas and solutions to existing problems.

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