

# Department of Computer Science Engineering

## POs (Programme Outcome)

<b>Engineering Knowledge</b>
Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
<b>Problem analysis</b>
Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
<b>Design/development of solutions</b>
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.
<b>Conduct investigations of complex problems</b>
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.
<b>Modern tool usage</b>
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
<b>The engineer and society</b>
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.
<b>Environment and sustainability</b>
Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
<b>Ethics</b>
Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
<b>Individual and team work</b>
Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
<b>Communication</b>
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

<b>Project management and finance</b>
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.
<b>Life-long learning</b>
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.

**PSOs (Programme Specific Outcome)**

Name of the Programme	BE Computer Science Engineering
<b>Computer Science Engineering</b>	PSO 1: Model Computational Problems by applying mathematical concepts and design solutions using suitable data structures and algorithmic techniques
	PSO 2: Design and develop solutions by following standard software engineering principles and implement by using suitable programming language and platforms
	PSO 3: Develop system solutions involving both hardware and software modules

**PEOs (Programme Educational Objectives)**

Name of the Programme	BE Computer Science Engineering
<b>Computer Science Engineering</b>	PEO 1: Provide engineering insight to problem solving to succeed in Technical Profession through precise education and to prepare students to excel in postgraduate programs.
	PEO 2: To provide students with fundamental knowledge and ability to expertise in Computer Science and Engineering.
	PEO 3: Prepare students with good scientific and engineering breadth so as to analyze, design and create products, solutions to problems in the area of Computer Science and Engineering.
	PEO 4: To inculcate in students professional, effective communication skills, team work, multidisciplinary approach and an ability to relate engineering issues to broader social context.
	PEO 5: Prepare students to be aware of excellence, leadership, written ethical codes and guidelines and lifelong learning needed for successful professional career by providing them with an excellent academic environment.

## Department of Electronics and Instrumentation Engineering

### POs (Programme Outcome)

<b>Engineering Knowledge</b>
Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
<b>Problem analysis</b>
Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences
<b>Design/development of solutions</b>
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.
<b>Conduct investigations of complex problems</b>
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.
<b>Modern tool usage</b>
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
<b>The engineer and society</b>
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.
<b>Environment and sustainability</b>
Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
<b>Ethics</b>
Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
<b>Individual and team work</b>
Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
<b>Communication</b>
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
<b>Project management and finance</b>

**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.**

**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.**

**PSOs (Programme Specific Outcome)**

<b>Name of the Programme</b>	<b>BE Electronics and Instrumentation Engineering</b>
<b>Electronics and Instrumentation Engineering</b>	PSO 1: Graduates apply the knowledge of mathematical and physical science to solve problems in Control Engineering, Process Control, Robotics and Automation.
	PSO 2: Graduates are capable of handling and applying modern engineering tools, software for Industrial Automation
	PSO 3: Graduates are capable of working in teams in industrial environment, research laboratory and carrying out major Industrial projects

**PEOs (Programme Educational Objectives)**

<b>Name of the Programme</b>	<b>BE Electronics and Instrumentation Engineering</b>
<b>Electronics and Instrumentation Engineering</b>	PEO 1: To produce graduates having a strong background of basic science, Mathematics & Engineering and ability to use these tools.
	PEO 2: To produce graduates who can demonstrate technical competence in the field of electronics and communication engineering and develop solutions to the complex problems.
	PEO 3: To produce graduates having professional competence through life-long learning such as advanced degrees, professional skills and other professional activities related globally to engineering & society
	PEO 4: To produce graduates who function effectively in a multi-disciplinary environment and individually, within a societal and environmental context
	PEO 5: To produce graduates who would be able to take individual responsibility and work as a part of a team towards the fulfillment of both individual and organizational goals.

**PSOs (Programme Specific Outcome)**

Name of the Programme	Computer Science Applications
<b>Computer Science Applications</b>  1) <b>BCA</b> 2) <b>BSC (CS)</b> 3) <b>MCA</b>	PSO 1: Enable the students to select the suitable data models, appropriate architecture and platform to implement a system with good performance. PSO2 :
	PSO 2: Enable the students to design and integrate various system based components to provide user interactive solutions for various challenges

### **PEOs (Programme Educational Objectives)**

Name of the Programme	Computer Science Applications
<b>Computer Science Applications</b>	PEO 1: To prepare graduates to be successful professionals in industry, government, academia, research, entrepreneurial pursuit and consulting firms.
	PEO 2: To provide students various computing skills like the analysis, design and development of innovative software products to meet the industry needs.
	PEO 3: To motivate the students to pursue lifelong learning to fulfill their goals.
	PEO 4: To prepare graduates to contribute to society, as broadly educated, expressive, ethical and responsible citizens with proven expertise.