

# **Department of Computer Science**

## **BS Computer Science Program**

### **Program Educational Objectives (PEOs)**

**PEO 1:** Our graduates will have professional career in industry, academia, and R&D organizations or in a self-initiated entrepreneurial undertaking.

**PEO 2:** Our graduates will be able to analyze problems and create sustainable solutions using their domain knowledge and modern IT tools. Also, they will have the ability to adapt to the changes in technology and the needs of society.

**PEO 3:** Our graduates will continue to seek knowledge for professional advancement and enhanced awareness about computing practices and societal concerns.

**PEO 4:** Our graduates will manage assigned projects as individuals or as a part of an interdisciplinary team. They will be effective communicators and will conduct themselves with integrity, upholding the principles of ethics and social responsibility.

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### Student Outcomes (SOs):

Computing programs prepare students to attain educational objectives by ensuring that students demonstrate achievement of the following outcomes.

<b>1. Academic Education</b>	To prepare graduates as computing professionals
<b>2. Knowledge for Solving Computing Problems</b>	Apply knowledge of computing fundamentals, knowledge of a computing specialization, and mathematics, science, and domain knowledge appropriate for the computing specialization to the 16 abstraction and conceptualization of computing models from defined problems and requirements
<b>3. Problem Analysis</b>	Identify, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines
<b>4. Design/ Development of Solutions</b>	Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations
<b>5. Modern Tool Usage</b>	Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations
<b>6. Individual and Team Work</b>	Function effectively as an individual and as a member or leader in diverse teams and in multi-disciplinary settings
<b>7. Communication</b>	Communicate effectively with the computing community and with society at large about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions
<b>8. Computing Professionalism and Society</b>	Understand and assess societal, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice
<b>9. Ethics</b>	Understand and commit to professional ethics, responsibilities, and norms of professional computing practice
<b>10. Life-long Learning</b>	Recognize the need, and have the ability, to engage in independent learning for continual development as a computing professional

