



## Department of Computer Science and Engineering Walchand College of Engineering, Sangli

### Vision and Mission of Department

#### VISION:

To produce capable computer science & engineering graduates with an aptitude for research and leadership.

#### MISSION:

1. To promote excellence in CSE education through relevant academic curricula and innovative teaching learning processes.
2. To offer different opportunities to the students for development of professional skills.
3. To nurture critical thinking and creativity in the students.
4. To inculcate in the students life-long learning attitude and sensitivity towards society & environment.

### Programme Educational Objectives (PEOs)

Programme Educational Objectives of Department of Computer Science and Engineering are as follows.

Graduates of Computer Science and Engineering programme after a span of three to four years of their graduation will:

|             |  |
|-------------|--|
| <b>PEO1</b> | Demonstrate technical competency by applying knowledge to solve problems related to engineering issues.    |
| <b>PEO2</b> | Exhibit skills and right attitude to succeed in their professional Career.                                 |
| <b>PEO3</b> | Display thirst for emerging technologies and quest for innovation with concern to society and environment. |



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### Programme Outcomes:

The students after successfully completing this programme will have an ability 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



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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.

**PSO1: Domain-Specific Knowledge:** An ability to apply techniques to develop computer- based solutions using domain-specific knowledge of Data Science, Computer vision, Security, Database, IoT, and allied.

**PSO2: Software System Design:** An ability to adapt to evolutionary changes in computing and apply standard practices and strategies of software project development and management to provide efficient solutions to real-life problems.

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## Department of Information Technology Walchand College of Engineering, Sangli

### Program Educational Objectives (PEOs)

#### M. Tech. (Computer Science and Engineering)

Graduates of PG Programme after completing their graduation in Computer Science and Engineering will be able to:

**PEO1:** Demonstrate technical competency by applying knowledge to solve problems related to Engineering issue.

**PEO2:** Exhibit high professional skills and ethical attitude to succeed in their professional career.

**PEO3:** Display thirst for emerging technologies and quest for research and innovation to solve real-world problems of high complexity, with concern to society and environment

### Programme Outcomes (POs)

#### M. Tech. (Computer Science and Engineering)

Post graduates on successful completion of the programme will be able to:

**PO1:** Independently carry out research /investigation and development work to solve practical problems.

**PO2:** Write and present a substantial technical report/document.

**PO3:** Demonstrate a degree of mastery in Computer Science and Engineering; a level higher than the requirements in the appropriate bachelor program.

**PO4:** Analyze, evaluate and build systems in the field of Computer Science & Engineering.

**PO5:** Practice ethical behavior with professional code of conduct, effective managerial skills and life-long learning for solving real world problems related to social and environmental upliftment.

**PO6:** Acquire expertise in the latest trends in Computer Science & Engineering like data science, computer security and advanced computing leading to innovation.