Walchand College of Engineering

SANGLI

Electronics Engineering Department

VISION

❖ To be an Electronics Engineering programme of the first choice by the aspiring students and prospective employers by implementing world class education practices.

Mission

❖ To adopt vibrant academic curricula and implement innovative teaching learning processes.

❖ To provide opportunities to the students for the development of professional skills.

❖ To nurture critical thinking and creativity in students.

❖ To inculcate in students the life-long learning attitude and sensitivity towards society & environment.

Undergraduate Program
Program Education Objectives (PEOs)

Graduates of Electronics Engineering Program after the span of three to four years of their graduation will

PEO1: **Demonstrate** technical competency by applying knowledge to solve problems related to engineering issues.

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

PEO3: **Display** thirst for emerging technologies and quest for innovation with concern to society and environment.

Program Outcomes (POs)

The undergraduate students at the time of their graduation will be able to

PO1: **Engineering Knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of engineering problems.

PO2: **Problem Analysis**: Identify, formulate and analyze engineering problems reaching substantiated conclusions.

PO3: **Design / Development of Solutions**: Design solutions for engineering problems and design system components / systems that meet the specified needs with appropriate consideration for the societal, and environmental considerations.

PO4: **Conduct Investigations of Complex Problems**: Use research-based knowledge and research methods including design of experiments, analysis and synthesis of the information to provide valid conclusions.

PO5: **Modern Tool Usage**: Apply appropriate techniques, resources and modern engineering tools to solve engineering problems.

PO6: **The Engineer and Society**: Apply reasoning informed by the contextual knowledge to assess societal, safety, legal 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 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.

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.

PO12: **Life-long Learning**: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning.

PSO1: **Analyze** problems in various areas of communication and demonstrate expertise to suggest the solutions by using appropriate EDA tools.

PSO2: **Demonstrate** proficiency in developing hardware architectures for building electronic systems and expertise in implementing those using signal processing / embedded system/ VLSI system design approaches.

Postgraduate Program

Program Education Objectives (PEOs)

Graduates of PG Program within three to five years of their graduation in Electronics Engineering will…

PEO1: **Demonstrate** the domain expertise and technical leadership with good communication and professional skills to analyze synthesize, evaluate and execute real life projects in electronics and allied fields.

PEO2: **Contribute** individually or in team to the development of engineering and technology leading to innovation in various domains of Electronics Engineering using modern tools.

PEO3: **Exhibit** life-long learning attitude, ethical behavior and societal responsibility.

Program Outcomes (POs)

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

PO1: **Apply** appropriate research methodologies and demonstrate higher order skills individually, in groups to the development works in the domain of Electronics Engineering to solve practical problems. (Research Skill)

PO2: **Communicate** with engineering community and society at large, confidently and effectively, through technical report, documentation and presentation, by adhering to appropriate standards. (Communication)

PO3: **Demonstrate** degree of mastery in Electronics Engineering at a level higher than the requirements in the appropriate bachelor program. (Scholarship of Knowledge)

PO4: **Analyze** complex problems in Electronics Engineering with an ability to compare, contrast and predict theoretically and practically to evaluate wide range of potential solutions with the aid of modern engineering techniques/tools. (Critical Thinking and Problem Solving)

PO5: **Demonstrate** ethical behavior with professional code of conduct, life-long learning, effective managerial skills, and contribute to sustainable development of society (Ethical Practices, Social responsibility, managerial skills and Life-long learning)

PO6: **Apply** emerging techniques for the design of Electronics Engineering in the domain of VLSI & Embedded Systems, Communication & Signal Processing. (Program specific outcome)