# SRI VENKATESWARA
## COLLEGE OF ENGINEERING & TECHNOLOGY
ISO 9001:2015 Certified
(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)
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**2.6.1 Programme Outcomes (POs) and Course Outcomes (COs) for all Programmes offered by the institution are stated and displayed on website and attainment of POs and COs are evaluated**

Sri Venkateswara College of Engineering and Technology working with the objective of Outcome Based Education (OBE). As a part of compliance of OBE, Program Outcomes (POs), Program Specific Outcomes (PSOs), Course Outcomes (COs) are prepared. As given by NBA, the twelve engineering graduate attributes are referred as Program Outcomes (POs). Program Specific Outcomes (PSOs) are framed by the respective programs in-lined with vision and mission of the program. Course Outcomes (COs) are defined for every course by respective course coordinators and senior faculty members.

**Program Outcomes (POs):** It represent the knowledge, skills and attitudes the students should have at the time of completion of their respective engineering program.

**Course Outcomes (COs):** It gives the resultant knowledge and skills the student acquires at the end of each course. The course outcomes are defined as per the contents of the each course. Generally four to six course outcomes are defined for each course. Course Outcomes are communicated to the students during the introduction class itself. During the discussion of the course, the outcomes of the course are also focused.

**Program Specific Outcomes (PSOs ):** These are what the students should be able to achieve at the time of graduation. Each program have defined two three three program specific outcomes.

### Dissemination

- The Vision, Mission, COs, POs and PSOs, PEOs are displayed on the Institute website
- It is also displayed at prominent locations of the campus for staff, students and public view.
- It is communicated to employers and alumni.
- It is communicated to parents during the Parent Teacher Meeting .
- It is attached in the course files, laboratory. manuals, etc.

### CO-PO Evaluation:

- The course coordinator prepares a matrix of CO-PO & CO-PSO mapping.
- The justification of CO-PO & CO-PSO mapping is also provided.
- The tools for attainment of CO are defined for each course.
- The attainment of CO, PO, PSO is calculated by using various tools.
- Tools for direct attainment
- Internal Assessment Tools: Internal mid examinations, assignments, seminars, etc.
- External Assessment Tools:  End semester examination, laboratory examinations.
- Indirect attainment of PO and PSO is also calculated based on various surveys and feedbacks.

PRINCIPAL

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Sri Venkateswara College of Engineering&Technology
ETCHERLA, Srikakulam-532410 (A.P)

# PROGRAM OUTCOMES (POS)

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

2. **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.

3. **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.

4. **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.

5. **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.

6. **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.

7. **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.

8. **Ethics**: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. **Individual and team work**: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. **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.

11. **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.

12. **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.