

# Shri Guru Gobind Singhji Institute of Engineering and Technology

Vishnupuri, NANDED (Maharashtra State) PIN 431606 INDIA

### **Department of Electronics and Telecommunication Engineering**

#### **PROGRAM OUTCOMES**

#### **Engineering Graduates will be able to:**

- **PO 1 Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 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.
- PO 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.
- PO 4 methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- **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.
- **PO 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.
- **PO 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.
- PO 8 Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO 9 Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings
- PO 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.
- 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.
- PO 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.



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PROGRAM EDUCATIONAL OBJECTIVES (PEOS)	
PEO I	Graduates of the Electronics and Telecommunication Engineering will acquire technical or professional careers.
PEO II	Graduates of the Electronics and Telecommunication Engineering will learn and adapt to the changing world and technology.
PEO III	Graduates of the Electronics and Telecommunication Engineering will learn and strive to solve the crucial problems of the society and industry by providing economic solutions along with sustained environment.
PEO IV	To provide the students with problem analysis skills, ability to design and develop solutions, investigation skills, use of modern tools, inculcate leadership skills along with smart work, finance management through life-long learning and follow ethics.

## **PROGRAM SPECIFIC OUTCOMES (PSOs)**

# **Electronics and Telecommunication Engineering graduates will be able to:**

- PSO 1 Model and simulate electronics and telecommunication systems to conduct experiments and analyze the performance using modern tools.
  - To meet realistic constraints like economic, social, environmental, ethical, health and safety
- **PSO 2** of stakeholders by implementing Signal and Image Processing algorithms and their realization using VLSI and Embedded System knowledge.
  - Engage in society need based innovations and contribute to make in India by gaining
- **PSO 3** awareness of IPRs, Finance, Economics and Entrepreneurship etc in the field of electronics and telecommunication engineering.