



**Estd: 2001**

*An Institute with a Difference*

**RN Shetty Trust**

# **RNS Institute of Technology**

## **Department of Information Science and Engineering**

***PEO, PO and PSO***



# Program Educational Objectives (PEOs)

- The PEOs of ISE program describe accomplishments that graduates are expected to attain within three-five years after graduation.
- Graduates would have applied their expertise to *contemporary problem solving, be engaged professionally, have continued to learn & adapt, and have contributed to their organizations through leadership & teamwork.*
- **ISE Graduates**, within three-five years of graduation should:
  - PEO1: Acquired the fundamentals of computers and applied knowledge of Information Science & Engineering and continue to develop their technical competencies by problem solving using programming.
  - PEO2: Ability to formulate problems attained the Proficiency to develop system/application software in a scalable and robust manner with various platforms, tools and frameworks to provide cost effective solutions.
  - PEO3: Obtained the capacity to investigate the necessities of the software Product, adapt to technological advancement, promote collaboration and interdisciplinary activities, Protecting Environment and developing Comprehensive leadership.
  - PEO4: Enabled to be employed and provide innovative solutions to real-world problems across different domains.
  - PEO5: Possessed communication skills, ability to work in teams, professional ethics, social responsibility, entrepreneur and management, to achieve higher career goals, and pursue higher studies.



# Program Outcomes (POs) defined by NBA

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, 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.



# Program Outcomes (POs) defined by NBA

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.



# Program Specific Outcomes (PSOs)

The **ISE graduates** will have

- 1. Problem Solving Abilities:** Ability to demonstrate the fundamental and theoretical concepts, analyze the real-time problems and develop customized software solutions by applying the knowledge of mathematics and algorithmic techniques.
- 2. Applied Engineering Skills:** Enable creative thinking, Ability to apply standard practices and strategies, technical skills in software design, development, integration of systems and management for improving the security, reliability and survivability of the infrastructure.
- 3. General Expertise and Higher Learning** – Ability to exchange knowledge effectively, demonstrate the ability of team work, documentation skills, professional ethics, entrepreneurial skills and continuing higher education in the field of Information technology.