Program Outcomes (Pos)

PO Designation Number	PO Type	Engineering graduates will be able to
PO1	Engineering Knowledge	Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems
PO2	Problem Analysis	Identify, formulate research literature and analyze complex engineering problems reaching sustainable conclusions using first principles of mathematics, natural sciences and engineering sciences
PO3	Design and Development of Solutions	Design solutions for complex engineering problems and design components or processes that meet specified needs with appropriate consideration for public health and safety, and cultural, societal and environmental considerations
PO4	Conduct Instigations of Complex Problems	Use research based – knowledge and research methods including design of experiments, analysis and interpretation of data and synthesis of 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 contextual knowledge to assess societal, safety, health, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice
PO7	Environment and Sustainability	Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate 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 multi disciplinary settings
PO10	Communication	Communicate effectively on complex engineering activities with the engineering community and 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
PO11	Project Management and Finance	Demonstrate knowledge and understanding of engineering and manag to one's own work, as a member and leader in a team, to manage proj environments
PO12	Life – long Learning	Recognize the need for and have the preparation and ability to engage learning broadest context of technological change

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Programme Outcomes MCA

1. **Computational Knowledge:**

Apply knowledge of computing fundamentals, computing specialisation, mathematics, and domain knowledge appropriate for the computing specialisation to the abstraction and conceptualisation of computing models from defined problems and requirements.

2. Problem Analysis:

Identify, formulate, research literature, and solve complex computing problems reaching substantiated conclusions using fundamental principles of mathematics, computing sciences, and relevant domain disciplines.

3. Design /Development of Solutions:

Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

4. Conduct investigations of complex C o m p u t i n g 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, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.

6. Professionl Ethics:

Understand and commit to professional ethics and cyber regulations, responsibilities, and norms of professional computing practices.

7. Life-long Learning:

Recognise the need, and have the ability, to engage in independent learning for continual development as a computing professional.

8. Project management and finance:

Demonstrate knowledge and understanding of t h e c o m p u t i n g and management principles and apply these to one's own work, as a member and leader in a team, to

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manage projects and in multidisciplinary environments.

9. Communication Efficacy:

Communicate effectively with the computing community, and with society at large, about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.

10. Societal and Environmental Concern:

Understand and assess societal, environmental, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practices.

11. Individual and Team Work:

Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary environments.

12. Innovation and Entrepreneurship

Identify a timely opportunity and using innovation to pursue that opportunity to create value and wealth for the betterment of the individual and society at large.

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SREE NARAYANA GURUKULAM COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER APPLICATIONS

PROGRAMME EDUCATIONAL OBJECTIVES:

PEO 1: Analyze real life problems, design computing systems appropriate to its solutions that are technically sound, economically feasible and socially acceptable.

PEO 2: To encourage students in setting up their own enterprise in various sectors of Computer Applications.

PEO 3: To prepare the students to pursue higher studies in computing and related fields and to work in the fields of teaching and research.

Sandhya RJ
14/03/2022
HoD (CA)

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Management Studies

PROGRAMME OUTCOME

PO1: Apply knowledge of management theories and practices to solve business problems.

PO2: Foster Analytical and critical thinking abilities for data-based decision making.

PO3: Ability to develop Value based Leadership ability.

PO4: Ability to understand, analyse and communicate global, economic, legal, and ethical aspects of business.

PO5: Ability to lead themselves and others in the achievement of organizational goals, contributing effectively to a team environment.

PO6: Ability to plan and manage projects in order to achieve objectives

PO7: Ability to use qualitative and quantitative research methods to solve business problems and to address social issues and problems effectively.

PO8: Ability to apply modern technology and tools in business.

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Management studies

Program Specific Objectives (PSO's)

PEO1:Conceptual and Technical Knowledge and its Application

To enable students to apply knowledge of management concepts and modern techniques in distinct areas of business.

PEO2: Professional Skill Development

To equip students with professional skill sets in order to confidently take up managerial responsibilities and adapt quickly to rapidly changing business environment.

PEO3: Analytical and Critical Thinking

To sharpen analytical and critical thinking abilities so as to understand real-world business situations and design workable solution to complex business problems.

PEO4: Entrepreneurship and Lifelong Learning

To hone entrepreneurial skills by engaging in research and innovation and promote lifelong learning in advanced areas of management.

PEO5: Inclusive Leadership

To prepare students to become inclusive leaders who adapt quickly to diverse scenarios upholding equity, personal integrity, ethical sensitivity and social responsibility.

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Electrical and Electronics Engineering

Programme Educational Objectives

Professional Knowledge: Provide basic knowledge of Engineering principles together with supporting knowledge of mathematics, science and computing fundamentals, laboratory experiments and project work, breadth and in-depth studies which enable the graduates to formulate and solve problems in Electrical and Electronics Engineering and shall have proficiency in computer based engineering and use of modern computational tools

Professional Employment: Graduates will succeed in entry-level engineering positions in Electrical and Electronics Engineering, computational or manufacturing firms in regional, national or international industries and with governments.

Professional studies: Graduates will succeed in the pursuit of advanced degrees in engineering or other fields and will have skills for continued independent, life-long learning to become experts in their profession and to broaden their professional knowledge

Professional citizenship: Graduates will have the ability to organize and present information, to write and speak effective English, to work effectively on team based engineering projects and will practice ethics and have a sense of social responsibility

Program Specific Outcome

PSO1: Ability to analyze and solve real time engineering problems in Electrical and electronic systems.

PSO2: Ability to use modern software tools to analyze and design electrical and electronic systems

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Computer Science & Engineering

Programme Educational Objectives

Graduates of Computer Science Program shall

PEO1. Have a strong foundation in the principles and applications of Computer Science, including Mathematics, Science and Basic Engineering and opt for career or higher-studies or research.

PEO2. Have knowledge and skills to use modern tools and work as teams in a multidisciplinary environment and communicate effectively.

PEO3. Be able to adapt to the evolving technical challenges and change in career opportunities with ethics, integrity, leadership and social responsibility.

Program-Specific Outcomes

Students of the Computer Science and Engineering program

PSO1: Shall enhance the employability skills by finding innovative solutions for challenges and problems in various domains of CS.

PSO2: Shall apply the acquired knowledge to develop software solutions and innovative mobile apps(applications) for various problems.

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Naval Architecture and ship building

Programme Educational Objectives (PEOs)

After successful completion of the program, the graduates of Naval architecture and shipbuilding engineering will be

PEO1: Able to apply concepts of mathematics, science and computing to Naval architecture &shipbuilding engineering and offshore design & development field, in their successful careers in organizations, in higher studies and in research.

PEO2: Able to design and develop interdisciplinary and innovative systems.

PEO3: Able to inculcate effective communication skills, team work, ethics, leadership in preparation for a successful career in industry and R & D organizations.

Programme Specific Outcomes

PSO1: Able to apply concepts of mathematics, science and computing to Naval architecture & shipbuilding engineering and offshore design & development field, in their successful careers in organizations, in higher studies and in research

PSO2: Able to design and develop interdisciplinary and innovative systems

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ELECTRONICS AND COMMUNICATION ENGINEERING

Programme Educational Objectives (PEOs)

PEO1: Up-to-date expertise for electronics and communication professionals along with a blend of knowledge in theory and practice.

PEO2: Demonstrate technical competency in analysing, identifying, designing and solving real world engineering problems to provide optimized solutions.

PEO3: Creative learning, team spirit, ethics, communication skills, innovation in the context of holistic and pragmatic view of industrial scenario.

Programme Specific Outcomes (PSOs)

PSO1: Sound knowledge in fundamental and advanced concepts to analyse, design, prototype and test electronics and communication systems.

PSO2: Competency to use both hardware and software electronic tools to design and analyse complex problems.

PSO3: Expertise in embedded system design platform for real time applications.

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