

Program Outcomes (PO'S)

- 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.
- 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.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS
ENGINEERING

Program Educational Objectives (PEO'S):

PEO-1:
Preparation – Higher education: Graduates of EEE program shall excel in technical education by providing a strong foundation in electrical engineering and enable them to pursue higher studies so as to find entry level positions in industries.
PEO-2:
Core competence and T-Shaped engineer: Graduates of EEE program be technically competent so as to create, analyze, research, design, develop, optimize and implement solutions to electrical problems and social problems.
PEO-3:
Professionalism and Lifelong Learning: Graduates of EEE program have professionalism, ethical attitude, communicational skills, team work and adapt to current trends by engaging in lifelong learning.

Program Specified Outcomes (PSO'S):

PSO1:
Able to utilize the knowledge of Power Electronics in collaboration with Electrical Machines to provide an engineering solution in the areas related to Electrical Drives.
PSO2:
To develop new cutting edge Technologies in Power Systems associated with efficient conversion and control of electrical power.
PSO3:
Able to use software for design, simulation and analysis of electrical systems.

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

Program Specified Outcomes (PSO'S):

PSO1: Application Development
Able to develop the business solutions through Latest Software Techniques and tools for real time Applications.
PSO2: Professional and Leadership
Able to practice the profession with ethical leadership as an entrepreneur through participation in various events like Ideathon, Hackathon, project expos and workshops.
PSO3: Computing Paradigms
Ability to identify the evolutionary changes in computing using Data Sciences, Apps, Cloud computing and IoT.

Program Educational Objectives (PEOs)

PEO 1:

Domain Knowledge: Have a strong foundation in areas like mathematics, science and engineering fundamentals so as to enable them to solve and analyze engineering problems and prepare them to careers, R&D and studies of higher level.

PEO 2:

Professional Employment: Have an ability to analyze and understand the requirements of software, technical specifications required and provide novel engineering solutions to the problems associated with hardware and software.

PEO 3:

Higher Degrees: Have exposure to cutting edge technologies thereby making them to achieve excellence in the areas of their studies.

PEO 4:

Engineering Citizenship: Work in teams on multi-disciplinary projects with effective communication skills and leadership qualities.

PEO 5:

Lifelong Learning: Have a successful career wherein they strike a balance between ethical values and commercial values.

DEPARTMENT OF INFORMATION TECHNOLOGY

Program Educational Objectives (PEOs)

PEO 1:

Domain Knowledge: Have a strong foundation in areas like mathematics, science and engineering fundamentals so as to enable them to analyse and solve engineering problems and prepare the students to careers, R&D and studies of higher level.

PEO 2:

Professional Employment: Have the ability to analyse and understand the requirements of software, and technical specifications required and provide novel engineering solutions to the problems associated with hardware and software.

PEO 3:

Higher Degrees: Have exposure to cutting edge technologies thereby making them to achieve excellence in the areas of their studies.

PEO 4:

Engineering Citizenship: Work in teams on multi-disciplinary projects with effective communication skills and leadership qualities.

PEO 5:

Lifelong Learning: Have a successful career wherein they strike a balance between ethical values and commercial values.

PROGRAM SPECIFIC OUTCOME (PSO'S)

PSO1: Application Development

Able to develop the business solutions through Latest Software Techniques and tools for real time Applications.

PSO2: Professional and Leadership

Able to practice the profession with ethical leadership as an entrepreneur through participation in various events like Ideathon, Hackathon, project expos and workshops.

PSO3: IT infrastructure

Ability to Analyze and recommend the appropriate IT infrastructure required for the implementation of a project

DEPARTMENT OF ELECTRONICS & COMMUNICATION
ENGINEERING

Program Educational Objectives

PEO1: Develop a strong background in basic science and mathematics and ability to use these tools in their chosen fields of specialization.

PEO2: Have the ability to demonstrate technical competence in the fields of electronics and communication engineering and develop solutions to the problems.

PEO3: Attain professional competence through life-long learning such as advanced degrees, professional registration, and other professional activities.

PEO4: Function effectively in a multi-disciplinary environment and individually, within a global, societal, and environmental context.

PEO5: Take individual responsibility and to work as a part of a team towards the fulfillment of both individual and organizational goals.

Program Specific Outcomes (PSO's)

PSO1:Professional Skills:

Apply Electronics, Communications, VLSI, Embedded systems knowledge to arrive cost effective and appropriate solutions.

PSO2:Problem-solving skills:

Able to provide solutions and design Semiconductor Devices, Digital Systems, Microprocessor and Signal processing for the fields of Consumer Electronics, Medical, Defense and Spacecraft Electronics industry

PSO3:Successful career:

Able to use latest hardware and software tools like VHDL,MATLAB,MULTISIM,MENTOR GRAPHICS along with analytical skills .

PSO4:Exposure for research and development:

To analyze latest trends in Communication and apply the knowledge for the improvement in the present technology by doing research through higher education

DEPARTMENT OF MECHANICAL ENGINEERING

Program Educational Objective

PEO1: Graduates shall gain profound knowledge in various domains of mechanical engineering for successful career in Industry or pursue higher studies or research.

PEO2: Graduates shall become effective collaborators / innovators, addressing the social, technical and Engineering challenges.

PEO3: Graduates shall acquire lifelong learning skills, professional ethics, good communication capabilities and leadership qualities for successful career.

Program Specific Outcomes (PSO'S)

PSO1: The Mechanical Engineering Graduates will be able to function in software industry in the areas of Design and development of software tools such as Auto Cad, CATIA, Ansys and so on.

PSO2: To prepare students for successful careers in industry that meets the needs of industries society and the country in general.

PSO3: Ability to implement the learned principles of Mechanical Engineering to analyze, evaluate and create more advanced mechanical systems or processes.

DEPARTMENT OF CIVIL ENGINEERING

Program Educational Objectives

PEO:1 Ability to apply basic science and mathematics and use in the chosen fields of specialization.

PEO:2 Ability to demonstrate technical competence in civil engineering and develop solutions to the problems.

PEO:3 Exhibit professional competence through life-long learning such as advanced degrees, professional registration, and other professional activities.

PEO:4 Ability to function effectively in a multi-disciplinary environment and individually, within a global, societal, and environmental context.

PEO:5 Ability to take individual responsibility and to work as a part of a team towards the fulfillment of both individual and organizational goals.

Program Specific Outcomes (PSO'S)

PSO1: The Mechanical Engineering Graduates will be able to function in software industry in the areas of Design and development of software tools such as Auto Cad, CATIA, Ansys and so on.

PSO2: To prepare students for successful careers in industry that meets the needs of industries society and the country in general.

PSO3: Ability to implement the learned principles of Mechanical Engineering to analyze, evaluate and create more advanced mechanical systems or processes.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING IN
DATA SCIENCE

Program Educational Objectives

Preparation: The learners of Data Science Engineering can be able to apply the knowledge of mathematics, Applied Science, Computing, Basic Engineering field to identify, analyze, formulate, design, and develop the practical solutions for industry and academics.

Core Competence: To enable the learners with core curriculum knowledge in theory and practical's of Data Science Engineering to develop the innovative skills in design, simulation, investigation of complex problems, critical reasoning, development & testing knowledge for offering solutions to real life.

Breadth Knowledge: To provide the learners with breadth knowledge to build the Data Science Engineering professionals to lead the team work and skills to develop the abilities to communicate, lifelong learning and aptitude of project management, finance with entrepreneurial values.

Leading Professional knowledge: To practice using a system of multi-faceted disciplinary approach to develop R&D skills by MOUs with premier industries and institutions interacting with training sessions and industrial visits to the learners to have awareness in latest trends of Cloud Computing, Cyber Forensics, Hadoop, Big data, Android etc... in concurring the modern software's and tools of Data Science to lead the escalating needs of society.

Career Improvement and ethics: To build the learners with the knowledge of real time requirement of cutting edge technologies by intellectually adapt to promote employability, higher education and imbibing ethical, social and eco-friendly.

PROGRAM SPECIFIC OUTCOME (PSO'S)

PSO1: Ability to design and develop applications using various Data Science tools..

PSO2: The learners will be able to develop the knowledge of the competitive environment in success of globally acclaimed tests like GRE, TOEFL, ILTES, IES, GMAT, CAT, PSUs, and GATE etc.

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING IN
ARTIFICIAL INTELLIGENCE**

Program Educational Objectives (PEOs)

Apply appropriate theory, practices, and tools to provide solution for multidisciplinary challenges.

Function effectively in the workplace for professional growth.

Adapt, contribute and innovate new technologies in the key domains of Artificial Intelligence during higher studies or product development.

PROGRAM SPECIFIC OUTCOME (PSO'S)

Apply the concepts in core area of Artificial Intelligence, Data Structure, Database System, Operating System, Networking and Intelligence System to solve futuristic problems.

Develop automated solutions for real world problems through laboratory experiments, projects and internship.



PRINCIPAL

KKR & KSR Institute of Technology & Sciences
Vinjanampadu, GUNTUR, 522017