

CRITERION - 2 TEACHING - LEARNING AND EVALUATION

2.6 STUDENTS PERFORMANCE AND LEARNING OUTCOME

2.6.1. Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

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2	Vision & Mission, Program Outcomes (POs), Program Specific Outcomes (PSOs) & Program Educational Objectives (PEOs) of the various programmes – Website screen shot	6





PROGRAM OUTCOMES

Engineering Graduates will be able to:

- 1. **Engineering knowledge**: (K3) Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. **Problem analysis**: (K4) 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**: (K4) 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**: (K5) 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**: (K3, K5, K6) Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- 6. **The engineer and society**: (A3) 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**: (A2) 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**: (A3) Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- 9. **Individual and team work**: (A3) Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

- 10. **Communication:** (A3) 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**: (A3) 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**: (A2) 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.

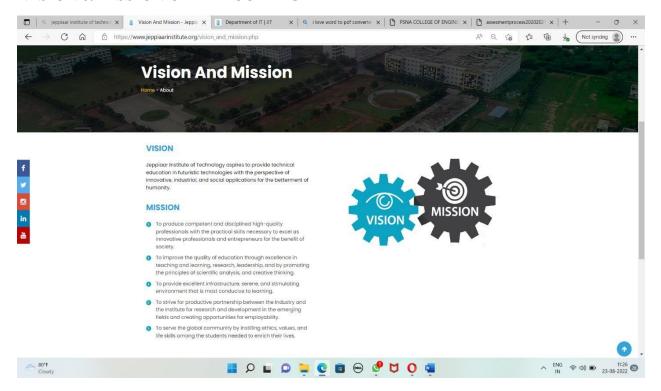




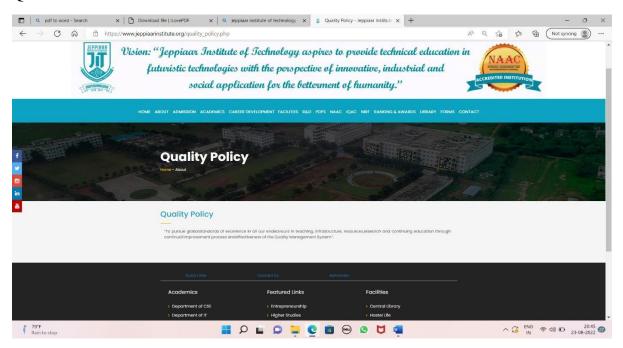
"Self-Belief | Self Discipline | Self Respect"



VISION & MISSION OF THE COLLEGE



QUALITY POLICY







ENGINEERING PROGRAMMES









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Kunnam, Sunguvarchatram, Sriperumbudur, Chennai-631604

PROGRAMME -COMPUTER SCIENCE AND ENGINEERING

VISION & MISSION



VISION

To impart futuristic technological education, innovation and collaborative research in the field of Computer Science Engineering and develop Quality Professional for the improvement of the society and industry.

MISSION

M1:Devise students as Professionally competent and disciplined engineers for the benefit of the country's development.

M2:Produce excellent to adopt latest technologies, industry-institute interaction and encouraging research activities.

M3: Provide multidisciplinary technical skills to pursueresearch activities, higher studies, entrepreneurshipand perpetual learning.

M4:Enrich students with professional integrity and ethical standards tohandle social challenges successfully in their life.

PROGRAMME EDUCATIONAL OUTCOME



PROGRAM EDUCATIONAL OBJECTIVE

PEO 1: To support students with substantial knowledge for developing and resolving mathematical, scientific and engineering problems.

PEO 2:To provide students with adequate training and opportunities to work as a collaborator with informative and administrative qualities.

PEO 3:To motivate students for extensive learning to prepare them for graduate studies, R&D and competitive exams.

PEO 4: To cater students with industrial exposure in an endeavour to succeed in the emerging cutting-edge technologies.

PEO 5: To shape students with principled values and to follow the code of ethics in social and professional life.







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PROGRAMME OUTCOME & PROGRAMME SPECIFIC OUTCOME



PROGRAM OUTCOMES

Engineering Graduates will be able to:

- Engineering knowledge: (K3) Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering synthems.
- Problem analysis: (K4) Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- Design/development of solutions: (K4) 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: (K5) 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: (K3, K5, K6) Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- The engineer and society: (A3) 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: (A2) Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
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- member or leader in diverse teams, and in multidisciplinary settings.
- 10. Communication: (A3) 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: (A3) 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: (A2) 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

PSOI: Analyse, design, and implementquality software by applying fundamental and programming concepts of Computer Science and

PSO2: Design and develop solutions for scientific, business and real time applications through analytical logical and problems solving skills.

knowledge through emerging technical skills

COURSE OUTCOMES

CSE - 2017 Course Outcomes





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PROGRAMME-MECHANICAL ENGINEERING

VISION & MISSION



VISION

To enhance advanced technical education in the field of Mechanical engineering with the view of transformation in societal and industrialized requirements offering a platform for excellence towards mankind.

MISSION

M1: To develop quality education with the global need.

M2: To provide state of art facilities to faculty members and students to apply their innovative thoughts towards communal development.

M3: To facilitate team work culture and promote student community to adapt industrial setup.

M4: To develop the research fervour among the students and encourage them to shape inventive ideas.

M5: To serve the global community by ethical values and core skills.

PROGRAMME EDUCATIONAL OUTCOME



PEO's-Program Educational Objectives

PEO1: Have a successful career in Mechanical Engineering and allied industries.

PEO2: Have expertise in the areas of Design, Thermal, Materials and Manufacturing.

PEO3: Contribute towards technological development through academic research and industrial practices.

PEO4: Practice their profession with good communication, leadership, ethics and social responsibility.

PEO5: Graduates will adapt to evolving technologies through life-long learning.





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PROGRAMME OUTCOME & PROGRAMME SPECIFIC OUTCOME



















சுய நம்பிக்கை, சுய ஒழுக்கம், சுய மரியாகை



Department Of Mechanical Engineering

- t. Problem analysis: (K4) Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering
- esign/development of solutions: (K4) Design solutions for com-neering problems and design system components or processes t the specified needs with appropriate consideration for the public h
- owledge and research methods including design of experiments, analysis of interpretation of data, and synthesis of the information to provide valid
- Modern tool usage: (K3, K5, K6) Create, select, and apply appropriately thingues, resources, and modern engineering and IT tools included diction and modeling to complex engineering activities with leastanding of the limitations.
- vironment and sustainability: (A2) Understand the sional engineering solutions in societal and environ emonstrate the knowledge of, and need for sustainable

- Communication: (A3) Communicate effectively on complex engineering ctivities with the engineering community and with society at large, such as, eing able to comprehend and write effective reports and design ocumentation, make effective presentations, and give and receive clear
- Project management and finance: (A3) Demonstrate knowledge and lesstanding of the engineering and management principles and apply se to one's own work, as a member and leader in a team, to manage
- long learning: (A2) Recog

Apply the fundamentals of mathematics, Science and age to identify, formulate, design and investigate completes of electric circuits, analog and digital electronic

50 2:Develop the ability to synthesize data for application in modeling nalysis software's to enhance the capabilities in simulation and demon-adership qualities in activities related to sustainable development of so





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PROGRAMME-ELECTRICAL AND ELECTRONICS ENGINEERING

VISION & MISSION



VISION

To foster contemporary Skills in the field of Electrical and Electronics Engineering with innovatory Skills, Global Understanding and Nation building for the progress of Humankind.

MISSION

M1: To Encompass Quality Engineers with skills as persevere to enrich the globaltechnically.

M2: To engage in research activities leading to innovative application of technology with Industrial approach for the benefit of mankind.

M3: To provide quality structure and beneficial learning system.

M4: To enable them as responsible human who value Ethics and environment.

PROGRAMME EDUCATIONAL OUTCOME



PEO's-Program Educational Objectives

PEO1: To provide students with the fundamental Knowledge, methodologies and use of cutting-edge Technologies.

PEO2: To provide students with an awareness and skills in lifelong learning and self-education.

PEO3: To Cultivate Teamwork, Technical writing and Oral communication skills.

PEO4: To provide students with an appreciation of engineering impact on society and the Professional responsibilities of an engineers







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PROGRAMME OUTCOME & PROGRAMME SPECIFIC OUTCOME



PO's-Program Outcomes

Engineering Graduates will be able to:

- Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysisdentify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- 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 modelling to complex engineering activities with an understanding of the limitation.
- 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.
- Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- Individual and teamwork: 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.

PSO's-Program Specific Outcomes

PSO to Apply the fundamentals of mathematics, Science and Engineering knowledge to identify, formulate, design and investigate complex engineering problems of electric circuits, analog and digital electronics, electrical machines and systems.

PSO 2: Apply appropriate technique and modern Engineering hardware and software tools in power systems to engage in life-long learning and to successfully adapt in multi-disciplinary environments.

PSO 3: Understand the impact of Professional Engineering solutions in societal and environment context, commit to professional ethical and communicate effectively.





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PROGRAMME-ELECTRONICS AND COMMUNICATION ENGINEERING

VISION & MISSION



Department Vision

The department will be an excellent centre to impart futuristic and innovative technological education and research in Electronics and Communication Engineering with application Skills to meet industrial expectation and Societal needs with ethical and global awareness for the advancement of humanity.

Department Mission

Produce competent and high-quality professional Engineers in the field of Electronics and Communication Engineering for the benefit of the societyglobally.

Provide a conducive infrastructure and environment for faculty and students with state-of-the-art laboratories, to create high qualityprofessionals.

Training in multidisciplinary skills needed by Industries, higher education institutions, research establishments andentrepreneurship.

Imparting Human Values and EthicalResponsibilities to handle Socio Economic Challenges of Society.

PROGRAMME EDUCATIONAL OUTCOME



PEO's Of The Department

Endowed with in-depth knowledge andskills in core Electronics and communication engineering requiredfor design and analysis of electronic systems and aptitude for lifelong learning.

Provided with futuristic education along with the perspective for research and application-basedskills according to global demands.

Exhibit effective communication skills and ability to work in multidisciplinary teams.

Develop entrepreneurship skills and practice the profession with integrity, leadership, ethics, and social responsibility.







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PROGRAMME OUTCOME & PROGRAMME SPECIFIC OUTCOME



PROGRAM OUTCOMES

Engineering Graduates will be able to:

- Engineering knowledge: (K3) Apply the knowledge of mathematics, science, engineeringfundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. Problem analysis: (K4) Identify, formulate, review research literature, and analyze
- complexengineeringproblemsreachingsubstantiatedconclusionsusingfirstprinciple of mathematics, natural sciences, and engineeringsciences.
- Design/development of solutions: (K4) 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 environmentaliconsiderations.
- 4. Conduct investigations of complex problems: (K5) Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide validational values.
- Modern tool usage: (K3, K5, K8) Create, select, and apply appropriate techniques, resources, and modern engineering and if tools including prediction and modelling to complex engineering activities with an understanding of thelimitations.
- The engineer and society: (A3) Apply reasoning informed by the contextual knowledgetoassesssocietal, health, safety, legaland culturalissues and the consequent responsibilities relevant to the professional engineering practice.
- Environment and sustainability: (A2) Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainabledevelopment.
- Ethics: (A3) Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- Individual and team work: (A3) Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. Communication: (A3) 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.
- II. Project management and finance: (A3) Demonstrate knowledge and understanding
- oftheengineeringandmanagementprinciplesandapplythesetoone'sownwork.ast member and leader in a team, to manage projects and in multidisciplinary environments.
- Life-long learning: (A2) Recognize the need for and have the preparation and ability toengageinindependentandlifelonglearning in the broadest context of technological change.

PROGRAM SPECIFIC OUTCOMES

PSO

Exhibity to develop and utilize novel, comport and power efficient coherent theoretical and practical methodologies in the field of analog and digital electronics.

PSO 2:strong> Ability to implement analog, digital and hybrid communication Protocol to aspect the challenges in the field of Telecommunication and Networking.

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PROGRAMME-INFORMATION TECHNOLOGY

VISION & MISSION



VISION

The department will be an excellent centre to impart futuristic and innovative technological education to facilitate the evolution of problem-solving skills along with knowledge application in the field of Information Technology, understanding industrial and global requirements and societal needs for the benefit of humanity.

MISSION

M1:Produce competent and high-quality professional computing graduates in software development considering global requirements and societal needs thereby maximizing employability.

M2:Enhance evolution of professional skills and development of leadership traits among the students by providing favourable infrastructure and environment to grow into successful entrepreneurs.

M3: Training in multidisciplinary skills needed by Industries, higher educational institutions, research establishments and Entrepreneurship.

M4:Impart Human Values and Ethical Responsibilities in professional activities.

PROGRAMME EDUCATIONAL OUTCOME



PEO'S OF THE DEPARTMENT

Provided with a fundamental knowledge in Science, mathematics and computing skills for creative and innovative application.

Enabled students competent and employable by providing excellent Infrastructure to learn and contribute for the welfare of the society.

To channelize the potentials of the students by offering state of the art amenities to undergo research and higher education.

To evolve computing engineers with multi-disciplinary understanding and maximize Job Opportunities.

To facilitate students, obtain profound understanding nature and social requirements and grow as professionals with values and integrity





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PROGRAMME OUTCOME & PROGRAMME SPECIFIC OUTCOME



PROGRAM OUTCOMES (POs)

Engineering Graduates will be able to:

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.

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.

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.

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.

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.

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.

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

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

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.

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

Students are able to analyse, design, implement and test any software with the programming and testing skills they have acquired.

Students are able to design and develop algorithms for real time problems, scientific and business applications through analytical, logical and problems solving skills.

Students are able to provide security solution for network components and data storage and management which will enable them to work efficiently in the industry.

