PAAVAI ENGINEERING COLLEGE

(AUTONOMOUS)

NH-44, PACHAL (PO), NAMAKKAL (DT)- 637018

INSTITUTE VISION MISSION

DEPARTMENT VISION MISSION

PROGRAMME EDUCATIONAL OBJECTIVES

PROGRAMME OUTCOMES

PROGRAMME SPECIFIC OUTCOMES

OF

ALL THE PROGRAMMES OFFERED BY THE INSTITUTION

PAAVAI ENGINEERING COLLEGE-AUTONOMOUS

DEPARTMENT OF AERONAUTICAL ENGINEERING

INSTITUTION VISION AND MISSION:

VISION:

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

MISSION:

- To provide goal- oriented, quality – based and value – added education through state – of – the – art technology on a par with international standards.
- To promote nation – building activities in science, technology, humanities and management through research
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

DEPARTMENT VISION AND MISSION:

VISION

- To be a global leader in transforming our younger generation into socially responsible and professionally competent engineers capable of facing the challenges ahead.

MISSION

- To provide quality education in aeronautical engineering through immersive, experiential learning opportunities integrated across the curriculum.
- To undertake research and innovation that enhances the industrial development of the nation.
- To inculcate ethical, ecological and cultural learning for the socio-economic upliftment through state-of-the art infrastructure.

PAAVAI ENGINEERING COLLEGE, NAMAKKAL – 637 018

(AUTONOMOUS)

B.E. AERONAUTICAL ENGINEERING

Programme Educational Objectives (PEOs)

PEO1	Excel in professional career and/or higher education by acquiring knowledge in engineering principles through analytical, computational and experimental methods
PEO2	Design and analysis of components, systems appropriate to Aeronautical/Aerospace engineering and solutions that are technically sound, economically feasible and socially acceptable, including real life problems
PEO3	Exhibit professionalism, ethical attitude, communication skills, team work in their professional carrier and adapt to state of art through continuous improvement

Programme Outcomes (POs)

Engineering Graduates will be able to :

PO1	Engineering knowledge	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems
PO2	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
PO3	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
PO4	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
PO5	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 limitations
PO6	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

PO7	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
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 multidisciplinary settings
PO10	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
PO11	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
PO12	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

Programme Specific Outcomes (PSOs)

PSO1	**Core Competencies:** Students attain deep domain knowledge in the fields of basic science to engineering applications and to enhance linguistic skills for effective communication and an ability to use conceptual knowledge of Aerodynamics, Aircraft Structures, Aircraft and Rocket Propulsion and identify the issues to propose suitable solutions.
PSO2	**Creativity and Design:** Students gain profound knowledge in the area of Maintenance, analyze and design with professional ethics and managerial skills for economic design and suggests suitable materials and techniques for construction and rehabilitation works

HEAD OF THE DEPARTMENT
DEPARTMENT OF AERONAUTICAL ENGINEERING
PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)
PACHAL, NAMAKKAL - 637 018

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF AGRICULTURE ENGINEERING

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal- oriented, quality – based and value – added education through state – of – the – art technology on a par with international standards.
- To promote nation – building activities in science, technology, humanities and management through research
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To be a centre of excellence for producing skilful and high quality Agriculture engineers supported by up-to-date curriculum which integrates all facets of Agricultural Engineering, entrepreneurship, management.
- To be recognized as the focal point for catalyzing the growth of the agriculture and related industry in India in the global context by providing databank, testing facilities, suitable consultancy and training services which enhances the quality life of the farmers.

Mission

M1.Quality Education: To enrich education and knowledge of students and make them competent enough to contribute towards agricultural and rural development so as to lead the nation at par with the world level scenario.

M2.TechnologyUpdation: To educate students to play an active role in industry by satisfying present and future needs of a global society through the development and implementation of revolutionary technologies for the overall development of the society.

M3.Employability: To produce world class business leaders, by offering continual training to enhance their skill and be updated on global trends in the area of agricultural engineering, food processing, energy and farm implement by consultation with the stake holders

M4.Research & Development: To carry out R&D in frontier areas, develop world class technologies and assist the Government in policy making in the field of agricultural engineering.

Programme Educational Objectives (PEOs)

PEO I: **Global reputation:** To make a graduate must be able to work with professionals in related fields over the spectrum of Irrigation Industries, Tractor Companies, Process Industries, Seed and Fertilizer Companies, NGOs and Government as an engineer and give necessary perspective to pursue post-graduate/doctoral/post doctoral education.

PEO II: **Fundamental Knowledge**: To provide students with a sound foundation in the science, mathematics, engineering and software/ hardware fundamentals for field application and give exposure of new cutting edge technologies to the students which motivate them to take up new challenges to solve the problems faced by society and nation through research and development.

PEO III. **Continuous learning**: To inculcate the nature of self-learning, discipline and ledership qualities with good communication skills in students and to introduce them to holistic approach of working in a team according to the codes of professional practice.

Programme Outcomes (POs)

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, 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**: 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.

Program Specific Outcomes (PSOs):

1. **Core Competencies:** The Graduates of this Programme with proficiency in different disciplines of agricultural engineering will excel in the core areas of agricultural engineering such as farm machinery, agricultural processing, soil and water conservation, crop husbandry and renewable energy technologies.
2. **Creativity and Design:** Students gain profound knowledge in engineering aspects of crop production for efficient management and utilization of nature and their resources with professional ethics and managerial skills for suggesting suitable techniques to solving agro-engineering issues of farming community which likely to enhance the economic development of our country.

Department of Agriculture Engineer
Paavai Engineering College,
Pachal, Namakkal 637 ...

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF CIVIL ENGINEERING

Institute Vision and Mission

Vision

- To strive to be a globally model institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal-oriented, quality-based and value-added education through the state-of-the-art, technology on a par with international standards.
- To promote nation–building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become well qualified Civil Engineers competent to face global challengers and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **Quality Education:** To produce innovative, competent and goal oriented Civil engineers through cutting-edge educational experience.
- **Technology Updation:** To enrich the knowledge of students by imparting state-of- the- art technology so that they will satisfactorily serve the society.
- **Employability:** To improve employability of students through Industry-Institution relationship and making them industry ready.
- **Research & Development:** To extend the knowledge of the faculty members continuously through research and development initiatives

ProgrammeEducational Objectives (PEOs)

EngineeringGraduates will be able to :

PEO1	Global reputation	To create value added, disciplined, high profile Civil Engineers professionals for successful careers in their related Industry that makes them globally reputed.
PEO2	Fundamental knowledge	To develop the students with a sound foundation in Mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO3	Continuous learning	To practice and demonstrate the ability to use the domain Knowledge and expertise through periodic assignments , performances and projects to continuously prove the functionality of Civil engineering learning in social and environmental aspects and to make allowances for further improvements

Programme Outcomes (PO's)

Engineering Graduates will be able to:

PO1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**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.
PO3	**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.
PO4	**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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**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
PO8	**Ethics**	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and teamwork**	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**Lifelong 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.

Programme Specific Outcomes (PSO's)

PSO I	**Core Competencies**	Students attain deep domain knowledge in the fields of basic science to engineering applications and to enhance linguistic skills for effective communication and an ability to use conceptual knowledge of Surveying, fluid mechanics, hydrology and water resources and identify the environmental issues to propose suitable solutions
PSO II	**Creativity and Design**	Students gain profound knowledge in the area of Planning, analyzing, design and estimation of civilengineering structures with professional ethics and managerial skills for economic design and suggests suitable materials and techniques for construction and rehabilitation works.

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Department of Civil Engineering
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PRINCIPAL,
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PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Institution Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal-oriented, quality-based and value-added education through state- of- the- art technology on a par with international standards.
- To promote nation-building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become sustainable well qualified Engineers competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **M1. Quality Education:** To produce innovative, competent and goal-oriented computer science engineers through cutting-edge technology and educational experience.
- **M2. Technology Updation**: To enrich the knowledge of students by imparting state-of- the- art technology so that they will satisfactorily serve the society.
- **M3. Employability:** To improve the employability of students through Industry-Institution relationship and make them industry ready.
- **M4. Research & Development:** To widen the knowledge of the faculty members continuously through research and development initiatives.

Programme Educational Objectives (PEOs)

PEO I	**Global reputation**	To create value added, disciplined, high profile Computer Science and Engineering professionals for successful careers in their related Industry that makes them globally reputed.
PEO II	**Fundamental Knowledge**	To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO III	**Continuous learning**	To practice and demonstrate the ability to use the domain knowledge and expertise through periodic assignments performances and projects to continuously prove the functionality of computer science and engineering learning in social and environmental aspects and to make allowances for further improvements.

Programme Outcomes (POs)

Engineering Graduates will be able to:

PO1 **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems

PO2 **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.

PO3 **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.

PO4 **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.

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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 **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.

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 multidisciplinary settings.

PO10 **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.

PO11 **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.

PO12 **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.

Programme Specific Outcomes (PSOs)

PSO1 **Foundation of Computer System and Software development:** Ability to understand the principles and working of computer systems for the development of software solutions.

PSO2 **Applications of Computing and Research Ability:** Ability to use knowledge in various domains to identify research gaps and hence to provide solution with new ideas and innovations.

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PAAVAI ENGINEERING COLLEGE(AUTONOMOUS) PACHAL, NAMAKKAL- 637018
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Vision of the Institution

To strive to be a globally model institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission of the Institution

- To provide goal-oriented, quality-based and value-added education through the state-of-the-art, technology on a par with international standards.
- To promote nation–building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social ethical, ecological, cultural and economic upliftment.

Vision of the Department

- To provide quality technical education and prepare the students to become well qualified Electronics and Communication Engineers competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission of the Department

- **M1. Quality Education:** To produce innovative, competent and goal oriented Electronics and Communication engineers through cutting-edge educational experience.
- **M2. Technology Updation:** To enrich the knowledge of students by imparting state-of- the- art technology so that they will satisfactorily serve the society.
- **M3. Employability:** To improve the employability of students through Industry-Institution relationship and make them industry ready.
- **M4. Research & Development:** To extend the knowledge of the faculty members continuously through research and development initiatives.

Programme Educational Objectives

PEO I: Global reputation:

To create value added, disciplined, high profile Electronics and Communication Engineering professionals for successful careers in their related Industry that makes them globally reputed.

PEO II: Fundamental Knowledge:

To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge upgradation which will lead to technical innovations.

PEO III. Continuous learning:

To practice and demonstrate the ability to use the domain knowledge and expertise through periodic assignments , performances and projects to continuously prove the functionality of Electronics and Communication engineering learning in social and environmental aspects and to make allowances for further improvements.

Program Outcomes:

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, 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**: 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.
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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.

Program Specific Outcomes:

1. **Domain specific Knowledge:** Graduates of the Programme will be able to exhibit necessary engineering knowledge to create and design optimal model based solutions for complex problems in the domains of Electronics, Communication Engineering, Signal Processing, VLSI design and related fields.

2. **Career Growth:** Graduates of the Programme will be motivated to demonstrate specialized behavior and engage ethically in life-long learning with career growth for global challenges and societal needs.

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HEAD OF THE DEPARTMENT
Electronics & Communication Engg
PAAVAI ENGINEERING COLLEGE
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NH-7, PACHAL Post, NAMAKKAL DT

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal- oriented, quality – based and value – added education through state – of – the – art technology on a par with international standards.
- To promote nation – building activities in science, technology, humanities and management through research
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become well qualified Electrical and Electronics Engineers competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **M1. Quality Education:** To produce innovative, competent and goal oriented electrical and electronics engineers through cutting-edge technology and educational experience.
- **M2. Technology Updation:** To enrich the knowledge of students by imparting state-of- the- art technology so that they will satisfactorily serve the society.
- **M3. Employability:** To improve the employability of students through Industry-Institution relationship and make them industry ready.
- **M4. Research and Development:** To extend the knowledge of the faculty members continuously through research and development initiatives.

Programme Educational Objectives (PEO's)

PEO I	**Global reputation**	To create value added, disciplined, high profile Electrical and Electronics Engineering professionals for successful careers in their related Industry that makes them globally reputed.
PEO II	**Fundamental knowledge**	To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the

		technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO III	**Continuous learning**	To practice and demonstrate the ability to use the domain knowledge and expertise through periodic assignments, performances and projects to continuously prove the functionality of electrical and electronics engineering learning in social and environmental aspects and to make allowances for further improvements.

Programme Outcomes (PO's)

Engineering Graduates will be able to:

PO1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**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.
PO3	**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.
PO4	**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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**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
PO8	**Ethics**	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and teamwork**	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**Lifelong 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.

Programme Specific Outcomes (PSO's)

PSO I	**Creativity and Design**	To develop the ability among the students to synthesize the simulated outcomes and technical concepts for the application to electrical elements and product design.
PSO II	**Software Competencies**	To provide necessary foundation to simulate and to model the electrical designs practically in multidisciplinary areas towards product development in the field of Electrical Engineering.

Dr.G [illegible] Ph.D.,
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PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF MECHANICAL ENGINEERING

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal oriented, quality based and value-added education through state of the art technology on a par with international standards.
- To promote nation building activities in science, technology, humanities and managementthrough research.
- To create and sustain a community of learning that sticks on to social, ethical, ecological,cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become well qualified Mechanical Engineers competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **Quality Education:** To produce innovative, competent and goal-oriented Mechanical Engineers through cutting-edge technology and educational experience.
- **Technology Updation:** To enrich the knowledge of students by imparting state-of- the- art technology, so that they will satisfactorily serve the society.
- **Employability:** To improve employability of students through Industry-Institutionrelationship and make them industry ready.
- **Research & Development:** To widen the knowledge of the faculty memberscontinuously through research and development initiatives.

Programme Educational Objectives (PEOs)

Engineering Graduates will be able to :

PEO 1	Global reputation	create value added, disciplined, high profile mechanical professionals for successful careers in their related industry that makes them globally reputed
PEO 2	Fundamental knowledge	develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up-gradation which will lead to technical innovations
PEO 3	Continuous learning	practice and demonstrate the use of the domain knowledge and expertise through periodic assignments and projects tocontinuously prove the functionality of mechanical engineering in terms of social and environmental aspects and to make scope for further improvements

Programme Outcomes (POs)

PO1	Engineering knowledge	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	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.
PO3	Design/developmentof solutions	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the publichealth and safety, and the cultural, societal, and environmental considerations.
PO4	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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	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.
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 multidisciplinary settings.
PO10	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 reportsand design documentation, make effective presentations, and give and receive clear instructions.
PO11	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.
PO12	Life Long Learning	Recognize the need for, and have the preparation and abilityto engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes (PSOs)

PSO1	Creativity and Design	To develop the ability among students to synthesize the simulated outcomes and technical concepts for application to mechanical elements and product design.
PSO2	Core Competencies	To provide necessary foundation on computational platforms to solve challenging practical problems in multidisciplinary areas and it's application towards product development in the respective field of engineering.

HEAD OF THE DEPARTMENT
Mechanical Engg.
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL (Po) Namakkal - 637 018

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE, Namakkal-637018

(AUTONOMOUS)

DEPARTMENT OF MECHATRONICS

Institute Vision and Mission

Vision

To strive to be a globally model institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

To provide goal-oriented, quality-based and value-added education through state-of-the-art technology on a par with international standards.

To promote nation - building activities in science, technology, humanities and management through research.

To create and sustain a community of learning that sticks to social, ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

We, Mechatronics Engineering Department of Paavai Engineering College be a center of excellence for development and dissemination of knowledge in the field of Mechatronics Engineering in Robotics and automation research, postgraduate teaching and innovative product development for the Nation and beyond to produce the most competent Scientists, Engineers, Entrepreneurs, Managers and Researchers through Quality Education.

Mission

- Disseminate knowledge through effective teaching-learning process to beget quality Mechatronics Engineers who can become active entrepreneurs or competent professionals to meet the global needs.

- To offer quality education that gives them knowledge for professional practice and a career of lifelong learning, prepare the students for their role as engineers in society with an awareness of environmental and ethical values.

- Upgrade the state of art infrastructure to support continuous learning and research.

- To prepare the students to adapt themselves to changing global and local needs upholding professional ethics and contribute their might in transforming India into a world leader in technological advancement and prosperity.

Programme Educational Objectives (PEOs)

PEO I	**Global reputation**	Utilize the fundamental knowledge of basic sciences and engineering to succeed in their professional career.
PEO II	**Fundamental knowledge**	Analyze design and develop Mechatronics Engineering based products and processes for real world applications.
PEO III	**Continuous learning**	Exhibit professional and managerial capabilities with ethical conduct and an aptitude for continuous learning.

Programme Outcomes (POs)

Engineering Graduates will be able to:

PO1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**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.
PO3	**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.
PO4	**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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**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
PO8	**Ethics**	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and teamwork**	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**Lifelong 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.

Programme Specific Outcomes (PSOs)

PSO I	**Creativity and Design**	Design and develop Mechatronics systems by synergistic combination of precision mechanical engineering, electronic controls and systems.
PSO II	**Software Competencies**	Adapt multidisciplinary approach to solve real world industrial problems.

HEAD OF THE DEPARTMENT
MECHATRONICS ENGINEERING
PAAVAI ENGINEERING COLLEGE
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NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE, Namakkal-637018

(AUTONOMOUS)

DEPARTMENT OF BIOMEDICAL ENGINEERING

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal- oriented, quality – based and value – added education through state of the art technology on a par with international standards.
- To promote nation – building activities in science, technology, humanities and management through research
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To be the premier biomedical engineer who may stem multi-disciplinary engineering principles that combine societal healthcare and communities to root the excellence of our people enabling research and our discovery-centred educational programs.

Mission

- To support education and research that blends Biomedical Engineering.
- To impart education in the path of ethical and social responsibilities, to work effectively with diverse groups for the benefit of the society.
- To transform the students into professionally competent engineers through innovative, research, training, Internship and collaboration with industry, hospital, and academia.

ProgrammeEducationalObjectives(PEOs)	
PEO1	To enable the graduates to demonstrate their skills in solving challenges in their chosen field through the core foundation and knowledge acquired in engineering and biology.
PEO2	To enable the graduates to exhibit leadership, make decisions with societal and ethical responsibilities, function and communicate effectively in multidisciplinary settings.
PEO3	To ensure the graduates to recognize the need for sustaining and expanding their technical competence and engage in learning opportunities throughout their career.

Programme Outcomes (POs)	
PO1	**Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**Problem analysis:** Identify, formulate, review research literature and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	**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.
PO4	**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.
PO5	**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 limitations.
PO6	**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.
PO7	**Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge 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 multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**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.

ProgrammeSpecificOutcomes(PSOs)	
PSO1	To design, develop and implement indigenous medical devices that resolve the current societal healthcare problems by applying the concepts of Biomedical Engineering and Technology.
PSO2	To apply Information and Communication Technologies (ICT) and software skills for innovations and solving challenges in medicine and healthcare.

HEAD OF THE DEPARTMENT

Head of the Department
Department of Biomedical Engineering
Paavai Engineering College
Paavai Nagar, Pachal,
Namakkal-637 018.

PRINCIPAL

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE, Namakkal-637018

(AUTONOMOUS)

DEPARTMENT OF MEDICAL ELECTRONICS

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal- oriented, quality – based and value – added education through state of the art technology on a par with international standards.
- To promote nation – building activities in science, technology, humanities and management through research
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To persuade the students into disciplines of engineering and medicine to develop various support systems using technologies for healthcare applications under effective collaboration with industry, hospital and academia

Mission

- To promote education and research that blends Engineering and Medical Science
- To impart education in the path of ethical and social responsibilities, to work effectively with diverse groups for the benefit of the society
- To transform the students into professionally competent engineers through innovative, research, training, Internship and collaboration with industry, hospital, and academia

Programme Educational Objectives (PEOs)	
PEO1	To enable the graduates to demonstrate their skills in solving challenges in their chosen field through the core foundation and knowledge acquired in engineering and biology.
PEO2	To enable the graduates to exhibit leadership, make decisions with societal and ethical responsibilities, function and communicate effectively in multidisciplinary settings.
PEO3	To ensure the graduates to recognize the need for sustaining and expanding their technical competence and engage in learning opportunities throughout their career

Programme Outcomes (POs)	
PO1	**Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**Problem analysis:** Identify, formulate, review research literature and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	**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.
PO4	**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.
PO5	**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 limitations.
PO6	**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.
PO7	**Environment and sustainability**: Understand the impact of the professional engineering solutions in societal and environmental contexts and demonstrate the knowledge 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 multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**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.

Programme Specific Outcomes (PSOs)	
PSO1	To design, develop and implement indigenous medical devices that resolve the current societal healthcare problems by applying the concepts of Life sciences, Engineering and Technology.
PSO2	To apply information and communication technologies (ICT) and software skills for innovations and solving challenges in healthcare.

HEAD OF THE DEPARTMENT

Head of the Department
Department of Medical Electronics
Paavai Engineering College
Paavai Nagar, Pachal,
Namakkal-637 018.

PRINCIPAL

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
VPM.T PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF CHEMICAL ENGINEERING

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal oriented, quality based and value-added education through state of the art technology on a par with international standards.
- To promote nation building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social, ethical, ecological,cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become well qualified Chemical Engineers competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **M1. Quality Education:** To produce innovative, competent and goal-oriented Chemical Engineers through cutting-edge technology and educational experience.
- **M2. Technology Updation:** To enrich the knowledge of students by imparting state of the art technology, so that they will satisfactorily serve the society.
- **M3. Employability:** To improve employability of students through Industry-Institution relationship and make them industry ready.
- **M4. Research & Development:** To widen the knowledge of the faculty memberscontinuously through research and development initiatives.

Programme Educational Objectives (PEOs)

PEO I	**Global reputation**	To create value added, disciplined, high profile Chemical Engineering professionals for successful careers in their related industry that makes them globally reputed.
PEO II	**Fundamental knowledge**	To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO III	**Continuous learning**	To practice and demonstrate the ability to use the domain knowledge and expertise through periodic assignments, performances and projects to continuously prove their ability in social and environmental aspects.

Programme Outcomes (POs)

Engineering Graduates will be able to:

PO1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**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.
PO3	**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.
PO4	**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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7	**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
PO8	**Ethics**	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and teamwork**	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**Lifelong 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.

Programme Specific Outcomes (PSOs)

PSO I	**Design & Development**	Understanding and applying the working knowledge of chemical engineering principles to design a system for developing quality chemical processes by considering the cost, safety and environmental aspects.
PSO II	**Core Competencies**	Having the ability to implement the inter-perceptional skills of graduates in technical profession.

Head of the Department
Department of Chemical Engineering,
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PRINCIPAL
PAAVAI ENGINEERING COLLEGE
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PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF INFORMATION TECHNOLOGY

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal- oriented, quality – based and value – added education through state – of – the – art technology on a par with international standards.
- To promote nation – building activities in science, technology, humanities and management through research
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To strive to be a globally model institution, all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- **M1.** To develop, innovate, competent and quality IT professionals by imparting state-of the art technology.
- **M2.** To enrich the knowledge of the students through value-based education.
- **M3.** To promote Industry - Institution relationships among the students to become more employable and better technocrats.
- **M4.** To upgrade the Faculty qualification with cutting edge technology.
- **M5** . To constantly update and achieve an improvement in all aspects of outcomes.
- **M6.** To support the institution in its educational pursuits.
- **M7.** To achieve higher Status in technical and research grants.

Programme Educational Objectives (PEO's)

PEO I	**Global reputation**	To create value added, disciplined, high profile Information Technology professionals for successful careers in their related industry that makes them globally reputed.
PEO II	**Fundamental knowledge**	To develop the students with a sound foundation in mathematical, scientific and programming fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO III	**Continuous learning**	To practice and demonstrate the ability to use the domain knowledge and expertise through periodic assignments, performances and projects to continuously prove the programming skills and communication techniques in Information Technology fields and other environmental aspects to make further improvements.

Programme Outcomes (PO's)

Engineering Graduates will be able to:

PO1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**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.
PO3	**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.

PO4	**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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**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
PO8	**Ethics**	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and teamwork**	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**Lifelong 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.

Programme Specific Outcomes (PSO's)

PSO I	**Creativity and Design**	Understand and choose appropriate models for representing various information states like storage, processing, communication with security and privacy.

PSO II	**Software Competencies**	Proficiently develop modern networking technologies and apply their programming skills to create scalable real-time applications.

HEAD OF THE DEPARTMENT
DEPARTMENT OF INFORMATION TECHNOLOGY
PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)
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PRINCIPAL
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NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF FOOD TECHNOLOGY

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal oriented, quality based and value-added education through state of the art technology on a par with international standards.
- To promote nation building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social, ethical, ecological,cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become well qualified Food Technologists competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **M1. Quality Education:** To produce innovative, competent and goal-oriented Food Technologists through latest technology and educational experience.
- **M2. Technology Updation:** To enrich the knowledge of students by imparting state of the art technology, so that they will satisfactorily serve the society.
- **M3. Employability:** To improve employability of students through Industry-Institution relationship and make them industry ready.
- **M4. Research & Development:** To widen the knowledge of the faculty memberscontinuously through research and development initiatives.

Programme Educational Objectives (PEOs)

PEO I	**Global Reputation**	To prepare students to excel as a disciplined, high profile Food Technologist to succeed in industry/ technical profession that makes them globally reputed.
PEO II	**Fundamental Knowledge**	To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO III	**Continuous Learning**	To provide student with an academic environment aware of excellence, leadership, ethical codes and life long learning needed to continuously improve in social and environmental aspects.

Programme Outcomes (POs)

Engineering Graduates will be able to:

PO1	**Engineering Knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**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.
PO3	**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.
PO4	**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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7	**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
PO8	**Ethics**	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and Teamwork**	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**Lifelong 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.

Programme Specific Outcomes (PSOs)

PSO I	**Design & Development**	Understanding and applying the knowledge of food chemistry, food processing and packaging to design and develop the economically feasible equipments with quality, hygienic and cost effective catering to the needs of society.
PSO II	**Core Competencies**	Having the ability to implement their skills to sort and solve the problems in their technical profession.

Head of the Department
Department of Food Technology,
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PRINCIPAL
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NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF PHARMACEUTICAL TECHNOLOGY

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal oriented, quality based and value-added education through state of the art technology on a par with international standards.
- To promote nation building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social, ethical, ecological,cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become well qualified Pharmaceutical Technologists competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **M1. Quality Education:** To produce innovative, competent and goal-oriented Pharmaceutical Technologists through latest technology and educational experience.
- **M2. Technology Updation:** To enrich the knowledge of students by imparting state of the art technology, so that they will satisfactorily serve the society.
- **M3. Employability:** To improve employability of students through Industry-Institution relationship and make them industry ready.
- **M4. Research & Development:** To widen the knowledge of the faculty memberscontinuously through research and development initiatives.

Programme Educational Objectives (PEOs)

PEO I	**Global reputation**	To provide profound knowledge in various fields of Pharmaceutical Technology for a successful career in their related Industries that makes them globally reputed.
PEO II	**Fundamental knowledge**	To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO III	**Continuous learning**	To demonstrate professional success via learning in the broadest context of technological changes, continue to learn and advance in their careers by participation in professional organization & attainment of professional certification in the field of pharmaceutical technology.

Programme Outcomes (POs)

Engineering Graduates will be able to:

PO1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**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.
PO3	**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.
PO4	**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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7	**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
PO8	**Ethics**	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and teamwork**	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**Lifelong 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.

Programme Specific Outcomes (PSOs)

PSO I	**Design & Development**	Design and develop new drug dosage forms which will provide solution to current difficulties faced by the industry of drug delivery and drug safety.
PSO II	**Core Competencies**	Understanding and applying the fundamental concepts of drug synthesis, drug development, drug design and evaluation of the efficacy and safety of specific dosage forms.

Head of the Department
Department of Pharmaceutical Technology,
Paavai Engineerig College,
NH-7, Pachal Post, Namakkal-637018.

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF CYBER SECURITY -

Institution Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal-oriented, quality-based and value-added education through state- of- the-art technology on a par with international standards.
- To promote nation-building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide a propitious academic and research environment to produce competent professionals to the dynamic needs of the emerging trends in the field of Computer Technology especially Cyber Security.

Mission

- To upgrade the academic activities as the value based education with continuous improvement in the teaching - learning process.
- To enhance the social responsibilities of the students necessary for the successful professional practice.
- To facilitate the research and industrial interaction to meet the growing global changes and challenges.
- To encourage the students to become the successful future entrepreneurs and leaders of the society for the betterment of the Country.

The Program Educational Objectives (PEOs)

- **PEO I: Global reputation:** To create value added, disciplined, high profile Cyber Security professionals for successful careers in their related Industry that makes them globally reputed.

- **PEO II: Fundamental Knowledge**: To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.

- **PEO III. Continuous learning**: To practice and demonstrate the ability to use the domain knowledge and expertise through periodic assignments , performances and projects to continuously prove the functionality of Cyber Security learning in social and environmental aspects and to make allowances for further improvements.

Program Outcome (POs)

- **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 (PSOs)

- **PSO I**: **Foundation of Computer System and Cyber Security**: Ability to understand the principles and working in the areas related to data communication, networking, digital forensic, cyber defense, cryptography, network security, cyber laws and ethics for the development of Cyber Security solutions.

- **PSO II**: **Applications of Cyber Security**: Ability to apply the acquired depth knowledge of Cyber Security to protect and defend computer systems and networks from cyber security attacks.

Dr. P. MUTHUSAMY, ME (CSE)., Ph.D (CSE).
Professor and Head
Department of Cyber Security
Paavai Engineering College (Autonomous)
Namakkal-637 018, Tamilnadu India

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

M.E. COMPUTER SCIENCE AND ENGINEERING

Institution Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal-oriented, quality-based and value-added education through state- of- the- art technology on a par with international standards.
- To promote nation-building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become sustainable well qualified Engineers competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **M1. Quality Education:** To produce innovative, competent and goal-oriented computer science engineers through cutting-edge technology and educational experience.
- **M2. Technology Updation:** To enrich the knowledge of students by imparting state-of- the- art technology so that they will satisfactorily serve the society.
- **M3. Employability:** To improve the employability of students through Industry-Institution relationship and make them industry ready.
- **M4. Research & Development:** To widen the knowledge of the faculty members continuously through research and development initiatives.

Programme Educational Objectives (PEOs)

PEO I	**Global reputation**	To create value added, disciplined, high profile Computer Science and Engineering professionals for successful careers in their related Industry that makes them globally reputed.
PEO II	**Fundamental Knowledge**	To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO III	**Continuous learning**	To practice and demonstrate the ability to use the domain knowledge and expertise through periodic assignments performances and projects to continuously prove the functionality of computer science and engineering learning in social and environmental aspects and to make allowances for further improvements.

Programme Outcomes (POs)

Engineering Graduates will be able to:

PO1 **Engineering knowledge**: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems

PO2 **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.

PO3 **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.

PO4 **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.

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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 **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.

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 multidisciplinary settings.

PO10 **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.

PO11 **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.

PO12 **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.

Programme Specific Outcomes (PSOs)

PSO1 **Foundation of Computer System and Software development:** Ability to understand the principles and working of computer systems for the development of software solutions.

PSO2 **Applications of Computing and Research Ability:** Ability to use knowledge in various domains to identify research gaps and hence to provide solution with new ideas and innovations.

Dr. A. SUPHA LAKSHMI, B.E., M.E., Ph.D.,
Professor & Head
Department of Computer Science and Engineering
Paavai Engineering College
(Autonomous)
NH-44, Pachal (PO), Namakkal-637018

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE(AUTONOMOUS) PACHAL, NAMAKKAL- 637018
M. E COMMUNICATION SYSTEMS

Vision of the Institution

To strive to be a globally model institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission of the Institution

- To provide goal-oriented, quality-based and value-added education through the state-of-the-art, technology on a par with international standards.
- To promote nation–building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social ethical, ecological, cultural and economic upliftment.

Vision of the Department

- To provide quality technical education and prepare the students to become well qualified Electronics and Communication Engineers competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission of the Department

- **M1. Quality Education:** To produce innovative, competent and goal oriented Electronics and Communication engineers through cutting-edge educational experience.
- **M2. Technology Updation:** To enrich the knowledge of students by imparting state-of- the- art technology so that they will satisfactorily serve the society.
- **M3. Employability:** To improve the employability of students through Industry-Institution relationship and make them industry ready.
- **M4. Research & Development:** To extend the knowledge of the faculty members continuously through research and development initiatives.

Programme Educational Objectives

PEO I: Global reputation:

To create value added, disciplined, high profile Electronics and Communication Engineering professionals for successful careers in their related Industry that makes them globally reputed.

PEO II: Fundamental Knowledge:

To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge upgradation which will lead to technical innovations.

PEO III. Continuous learning:

To practice and demonstrate the ability to use the domain knowledge and expertise through periodic assignments , performances and projects to continuously prove the functionality of Electronics and Communication engineering learning in social and environmental aspects and to make allowances for further improvements.

Program Outcomes:

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, 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**: 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.

Program Specific Outcomes:

1. **Domain specific Knowledge:** Graduates of the Programme will be able to exhibit necessary engineering knowledge to create and design optimal model based solutions for complex problems in the domains of Electronics, Communication Engineering, Signal Processing, VLSI design and related fields.
2. **Career Growth:** Graduates of the Programme will be motivated to demonstrate specialized behavior and engage ethically in life-long learning with career growth for global challenges and societal needs.

HOD

HEAD OF THE DEPARTMENT
Electronics & Communication Engg
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL (Po) Namakkal - 637 018

PRINCIPAL

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF MECHANICAL ENGINEERING

M.E – ENGINEERING DESIGN

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal oriented, quality based and value-added education through state of the art technology on a par with international standards.
- To promote nation building activities in science, technology, humanities and managementthrough research.
- To create and sustain a community of learning that sticks on to social, ethical, ecological,cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become well qualified Mechanical Engineers competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **Quality Education:** To produce innovative, competent and goal-oriented Mechanical Engineers through cutting-edge technology and educational experience.
- **Technology Updation:** To enrich the knowledge of students by imparting state-of- the- art technology, so that they will satisfactorily serve the society.
- **Employability:** To improve employability of students through Industry-Institutionrelationship and make them industry ready.
- **Research & Development:** To widen the knowledge of the faculty memberscontinuously through research and development initiatives.

Programme Educational Objectives (PEOs)

Engineering Graduates will be able to :

PEO 1	Global reputation	create value added, disciplined, high profile mechanical professionals for successful careers in their related industry that makes them globally reputed
PEO 2	Fundamental knowledge	develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up-gradation which will lead to technical innovations
PEO 3	Continuous learning	practice and demonstrate the use of the domain knowledge and expertise through periodic assignments and projects tocontinuously prove the functionality of mechanical engineering in terms of social and environmental aspects and to make scope for further improvements

Programme Outcomes (POs)

PO1	Engineering knowledge	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	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.
PO3	Design/developmentof solutions	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the publichealth and safety, and the cultural, societal, and environmental considerations.
PO4	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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	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.
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 multidisciplinary settings.
PO10	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 reportsand design documentation, make effective presentations, and give and receive clear instructions.
PO11	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.
PO12	Life Long Learning	Recognize the need for, and have the preparation and abilityto engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes (PSOs)

PSO1	Creativity and Design	To develop the ability among students to synthesize the simulated outcomes and technical concepts for application to mechanical elements and product design.
PSO2	Core Competencies	To provide necessary foundation on computational platforms to solve challenging practical problems in multidisciplinary areas and it's application towards product development in the respective field of engineering.

HEAD OF THE DEPARTMENT
Mechanical Engg.
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL (Po) Namakkal - 637 018

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

M.E. POWER SYSTEMS ENGINEERING

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal- oriented, quality – based and value – added education through state – of – the – art technology on a par with international standards.
- To promote nation – building activities in science, technology, humanities and management through research
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become well qualified Electrical and Electronics Engineers competent to face global challenges and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **M1. Quality Education:** To produce innovative, competent and goal oriented electrical and electronics engineers through cutting-edge technology and educational experience.
- **M2. Technology Updation:** To enrich the knowledge of students by imparting state-of- the- art technology so that they will satisfactorily serve the society.
- **M3. Employability:** To improve the employability of students through Industry-Institution relationship and make them industry ready.
- **M4. Research and Development:** To extend the knowledge of the faculty members continuously through research and development initiatives.

Programme Educational Objectives (PEO's)

PEO I	**Global reputation**	To create value added, disciplined, high profile Electrical and Electronics Engineering professionals for successful careers in their related Industry that makes them globally reputed.
PEO II	**Fundamental knowledge**	To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the

		technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO III	**Continuous learning**	To practice and demonstrate the ability to use the domain knowledge and expertise through periodic assignments, performances and projects to continuously prove the functionality of electrical and electronics engineering learning in social and environmental aspects and to make allowances for further improvements.

Programme Outcomes (PO's)

Engineering Graduates will be able to:

PO1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**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.
PO3	**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.
PO4	**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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**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
PO8	**Ethics**	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and teamwork**	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**Lifelong 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.

Programme Specific Outcomes (PSO's)

PSO I	**Creativity and Design**	To develop the ability among the students to synthesize the simulated outcomes and technical concepts for the application to electrical elements and product design.
PSO II	**Software Competencies**	To provide necessary foundation to simulate and to model the electrical designs practically in multidisciplinary areas towards product development in the field of Electrical Engineering.

Dr.G.BALAJI,M.E.,Ph.D.
Professor & HOD
Department of Electrical and Electronics En
Paavai Engineering coll
Namakka' - 63701

PRINCIPAL
PAAVAI ENGINEERING COLLE
NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

M.E. STRUCTURAL ENGINEERING

Institute Vision and Mission

Vision

- To strive to be a globally model institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal-oriented, quality-based and value-added education through the state-of-the-art, technology on a par with international standards.
- To promote nation–building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social ethical, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To provide quality technical education and prepare the students to become well qualified Civil Engineers competent to face global challengers and to serve the society by acquiring adequate professional knowledge and skills by training.

Mission

- **Quality Education:** To produce innovative, competent and goal oriented Civil engineers through cutting-edge educational experience.
- **Technology Updation:** To enrich the knowledge of students by imparting state-of- the- art technology so that they will satisfactorily serve the society.
- **Employability:** To improve employability of students through Industry-Institution relationship and making them industry ready.
- **Research & Development:** To extend the knowledge of the faculty members continuously through research and development initiatives

ProgrammeEducational Objectives (PEOs)

EngineeringGraduates will be able to :

PEO1	Global reputation	To create value added, disciplined, high profile Civil Engineers professionals for successful careers in their related Industry that makes them globally reputed.
PEO2	Fundamental knowledge	To develop the students with a sound foundation in Mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO3	Continuous learning	To practice and demonstrate the ability to use the domain Knowledge and expertise through periodic assignments , performances and projects to continuously prove the functionality of Civil engineering learning in social and environmental aspects and to make allowances for further improvements

Programme Outcomes (PO's)

Engineering Graduates will be able to:

PO1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**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.
PO3	**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.
PO4	**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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**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
PO8	**Ethics**	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	**Individual and teamwork**	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**Lifelong 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.

Programme Specific Outcomes (PSO's)

PSO I	**Core Competencies**	Students attain deep domain knowledge in the fields of basic science to engineering applications and to enhance linguistic skills for effective communication and an ability to use conceptual knowledge of Surveying, fluid mechanics, hydrology and water resources and identify the environmental issues to propose suitable solutions
PSO II	**Creativity and Design**	Students gain profound knowledge in the area of Planning, analyzing, design and estimation of civil engineering structures with professional ethics and managerial skills for economic design and suggests suitable materials and techniques for construction and rehabilitation works.

Head of the Department,
Department of Civil Engineering
Paavai Engineering College
Pachal, Namakkal - 637 018

PRINCIPAL,
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, Namakkal Dt

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF MASTER OF BUSINESS ADMINISTRATION

Institute's Vision and Mission

Vision

- To strive to be a globally model institution, all set for taking a lead role in grooming the younger generation, socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal-oriented, quality-based and value-added education through state-of-the –art technology on a par with international standards.
- To promote nation-building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social, ethical, ecological, cultural and economic upliftment.

Department's Vision and Mission

Vision

- To strive to be a globally model institution, all set for taking a 'lead role' in grooming the younger generation, socially responsible and professionally competent to face the challenges ahead.

Mission

- To produce world class managers with excellent leadership quality.
- To impart appropriate managerial knowledge to the students to serve the business community.
- To mould management graduate to serve and uplift the society by all possible means.
- To train and develop the basic managerial skill sets which in turn facilitate the students to achieve Managerial excellence.

Programme Educational Objectives (PEOs)

Management Graduates will be able to :

PEO I To prepare post graduates in management to empower in the areas of business, managerial, communication, professional, public speaking, leadership, marketing and teambuilding skills.

PEO II To prepare post graduates in management graduates for immediate employment and continuous learning in the emerging areas of management discipline.

PEO III To prepare our management graduates to be innovative, ethical, responsible, and responsive leaders and managers, who will make difference in their professions and in the society.

Programme Outcomes (POs)

The students of Master of Business Administration Programme of Paavai Engineering College, Namakkal should, at the time of being graduated, possess :

PO1 Ability to apply conceptual business and management knowledge to solve business problems.

PO2 Capacity to understand global market and its impact on business firms, common people, and the country's economy.

PO3 An awareness of current issues like cultural diversity, social responsibility, sustainability, innovation and knowledge management in business organization.

PO4 Ability to work effectively on multi-disciplinary teams, by developing their soft skills.

PO5 Ability to continuously learn, improvise, energise, adapt and grow by synergising among the most diverse set of variables.

PO6 Ability to recognize and address ethical issues and values and apply them in organizational settings.

PO7 Competency in key business functional areas including Production, Operation, Accounting, Finance, Marketing, Human Resource Management.

PO8 Ability to develop both written and oral communication skills.

PO9 Capability to manage information effectively by scanning, organizing, and analyzing data for knowledge sharing and decision making.

PO10 Knowledge of contemporary issues (Social awareness).

PO11 Ability to use current techniques, skills, and tools necessary for managerial practice

PO12 Ability to rise, invest and manage fund for running a business unit successfully.

Programme Specific Outcomes (PSOs)

PSO1 To prepare postgraduates in management who will design business solutions for problems across the various functional domains of Management.

PSO2 To prepare postgraduates in management who will contribute to the growth and development of the society, through their research acumen and entrepreneurial and entrepreneurial skills.

HEAD OF THE DEPARTMENT
Management Studies
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL (Po) Namakkal - 63

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL Post, NAMAKKAL -

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

MASTER OF COMPUTER APPLICATIONS

Institute Vision and Mission

Vision

- To strive to be a globally model Institution all set for taking 'lead-role' in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To provide goal oriented, quality based and value-added education through state of the art technology on a par with international standards.
- To promote nation building activities in science, technology, humanities and management through research.
- To create and sustain a community of learning that sticks on to social, ethical, ecological,cultural and economic upliftment.

Department Vision and Mission

Vision

To strive to be globally model institutions all set for taking lead role in grooming the younger generation socially responsible and professionally competent to face the challenges ahead.

Mission

- To upgrade the academic activities by continuous improvement in the teaching - learning process with value based education.
- To enhance social responsibilities of the students necessary for successful practice of the profession.
- To facilitate research and industrial interaction.
- To mould the students into competent and creative technocrats to meet the growing global changes and challenges.
- To encourage the students as entrepreneurs and leaders of the society for the betterment of the Country.

- **Programme Educational Objectives (PEOs)**

PEO I	**Global reputation**	To provide profound knowledge in various fields of Pharmaceutical Technology for a successful career in their related Industries that makes them globally reputed.

PEO II	**Fundamental knowledge**	To develop the students with a sound foundation in mathematical, scientific and engineering fundamentals necessary to synthesize the technical core concepts focusing on skill development and knowledge up gradation which will lead to technical innovations.
PEO III	**Continuous learning**	To demonstrate professional success via learning in the broadest context of technological changes, continue to learn and advance in their careers by participation in professional organization & attainment of professional certification in the field of pharmaceutical technology.

Programme Outcomes (POs)

Engineering Graduates will be able to:

PO1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	**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.
PO3	**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.
PO4	**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.
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 the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	**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
PO8	**Ethics**	Apply ethical principles and commit to professional ethics and

		responsibilities and norms of the engineering practice.
PO9	**Individual and teamwork**	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	**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.
PO11	**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.
PO12	**Lifelong 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.

HEAD OF THE DEPARTMENT
Master of Computer Application
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL (Po) Namakkal - 637 018.

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NH-7, PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE

(AUTONOMOUS)

CURRICULUM STRUCTURE

S. No.	Category	Percentage of Credits	
		Min	Max
1	Humanities and Social Sciences (HS)	6%	8%
2	Basic Sciences (BS)	15%	17%
3	Engineering Sciences (ES)	12%	14%
4	Professional Core Courses (PC)	33%	42%
5	Professional Elective Courses (PE)	9%	10%
6	Open Elective Courses (OE)	3%	7%
7	Employability Enhancement Courses (EE)	6%	7%

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