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 Agricultural 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

- **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.

- **Technology Updation:** 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.
- **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
- **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)		
Engineering Graduates will be able to :		
PEO 1	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 2	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 3	Continuous learning	To inculcate the nature of self-learning, discipline and leadership 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)		
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)		
PSO I	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.
PSO II	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.

20/12/2024

Head of the Department
Department of Agriculture Engineering
Paavai Engineering College

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 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 Civil engineers through cutting-edge technology and educational experience.
- **TechnologyUpdation:** 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.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

- PEO I : **Global reputation:** To create value added, disciplined, high profile Civil Engineers 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 Civil engineering learning in social and environmental aspects and to make allowances for further improvements.

PROGRAMME OUTCOMES (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.

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 Surveying, fluid mechanics, hydrology and water resources and identify the environmental issues to propose suitable solutions.
- **PSO2 : 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
JH-7 PACHAL Post. NAMAKKAL Dist

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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PRINCIPAL
PAAVAI ENGINEERING COLLEGE
NH.7 PACHAL Post. NAMAKKAL Dist

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 and students 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 Dt.

PAAVAI ENGINEERING COLLEGE, NAMAKKAL – 637018
(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	**Core 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 Engineering
Paavai Engineering College
Namakkal - 637 018

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 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 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-Institution relationship and make them industry ready.
- **Research and 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 mechanical 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 use of the domain knowledge and expertise through periodic assignments and projects to continuously prove the functionality of mechanical engineering in terms of social and environmental aspects and to make scope for further improvements

Programme Outcomes (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.

Programme Specific Outcomes (PSOs)

- **PSOI: 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.
- **PSOII: Core Competencies:** To provide necessary foundation on computational platforms to solve challenging practical problems in multidisciplinary areas and its application towards product development in the respective field of engineering.

Head of the Department

HEAD OF THE DEPARTMENT
Mechanical Engineering
PAAVAI ENGINEERING COLLEGE
NH-44, PACHAL (Po) Namakkal - 637 018.

Principal

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

PAAVAI ENGINEERING COLLEGE, Namakkal-637018

(AUTONOMOUS)

DEPARTMENT OF MECHATRONICS

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

HEAD OF THE DEPARTMENT
MECHATRONICS ENGINEERING
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 Biomedical Engineering

Institute 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 path of ethical 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 (PEO)		
Engineering Graduates will be able to :		
PEO1	**Global reputation**	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	**Fundamental Knowledge**	To enable the graduates to exhibit leadership, make decisions with societal and ethical responsibilities function and communicate effectively in multidisciplinary settings.
PEO3	**Continuous learning**	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 (PO)		
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 (PSO)		
PSO I	**Core Competencies**	To design, develop and implement indigenous medical devices that resolve the current societal healthcare problems by applying the concepts of Biomedical Engineering and Technology.
PSO II	**Creativity and Design**	To apply information and Communication Technologies (ICT) and software skills for innovations and solving challenges in medicine and healthcare.

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

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

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 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 emerge as a leading domain in the educational, professional and research fields of cyber security at the Regional, National and Global level with the focus to produce professionally competent and social responsible engineers capable of working in global environment

Mission

- To prepare cyber security professionals both in academic and industrial settings, capable of leading, designing and developing various projects in different areas of cyber security.
- To bestow the knowledge and skill which is required for providing security services to individuals, public and to contribute to the development of society.
- To use modern tools, design to protect against cyber security attacks and also communicate effectively with professional ethics.

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.

HEAD OF THE DEPARTMENT
CYBER SECURITY
PAAVAI ENGINEERING COLLEGE,
(AUTONOMOUS)
NH-7, PACHAL (Po), NAMAKKAL-637 018

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

PAAVAI ENGINEERING COLLEGE, NAMAKKAL (AUTONOMOUS)

DEPARTMENT OF CSE (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

INSTITUTION VISSION 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 VISSION 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:

- **Quality Education:** To produce innovative, competent, and goal-oriented computer science 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 the employability of students through Industry-Institution relationship and make them industry ready.
- **Research & Development:** To widen the knowledge of the faculty members continuously through research and development initiatives.

PROGRAMME EDUCATIONAL OUTCOMES (PEOs)

PEO 1	**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 2	**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 3	**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)

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: 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. P. SRINIVASAN, M.E.,P.hD.,
Professor and Head
Department of B.E.,CSE (AI and ML)
Paavai Engineering College (Autonomous)
Nam[illegible]

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
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PAAVAI ENGINEERING COLLEGE (Autonomous)

Department of CSE (Internet of Things)

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 arttechnology 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

- **Quality Education:** To produce innovative, competent and goal-oriented computer science 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 the employability of students through Industry-Institution relationship and make them industry ready.
- **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 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.

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.

HEAD OF THE DEPARTMENT
Department of CSE (IOT)
PAAVAI ENGINEERING COLLEGE
NH-44, Pachal (P.O), Namakkal-637 018.

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

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF ROBOTICS AND AUTOMATION

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 equip the students with necessary interdisciplinary and advanced knowledge to become full-fledged 'Robotics and Automation' engineers to adopt with the fast changing technological demands.

Mission

- To produce Robotics and Automation Engineers of global standard to cater to the industry requirements with innovative methods and solve real-world problems.
- To inculcate tendencies among students such as continuous technology Updation, enhancing employability skills and a research bent of mind to face global challenges in the field of robotics and automation.

Programme Educational Objectives (PEOs)

- **PEO I: Global reputation:** To create value added, disciplined, high profile mechanical 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 use of the domain knowledge and expertise through periodic assignments and projects to continuously prove the functionality of mechanical engineering in terms of social and environmental aspects and to make scope for further improvements

Programme Outcomes (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.

Programme Specific Outcomes (PSOs)

- **PSOI: Creativity and Design:** To design a robotic system or an automation system as per the requirements of industries using advanced technologies that would increase productivity.
- **PSOII: Core Competencies:** Be adept in advanced technologies and provide appropriate engineering solutions with design, materials and mechanisms in the field of robotics and automation.

Head of the Department

HEAD OF THE DEPARTMENT
Robotics and Automation
PAAVAI ENGINEERING COLLEGE

Principal

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

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF SAFETY AND FIRE 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 impart quality technical education to the students and make them well qualified Safety Engineers to meet all kinds of industrial safety challenges the modern world is throwing and to serve the global society with moral and ethical principles and also professional knowledge and skills.

Mission

- **Quality Education:** To produce innovative, global-ready Safety Engineers through cutting-edge technology and best educational experience.
- **Technology Updation:** To impart knowledge of state-of- the- art technology in the field of Safety and Fire Engineering and develop them to acquire global level competency.
- **Employability:** To expose the students to real-time experience through Industry-Institution interactions and make them industry ready.
- **Research & Development:** To enrich the knowledge of the faculty members and well as the students continuously through conferences, projects and research and development initiatives.

Programme Educational Objectives (PEOs)

- **PEO I: Global reputation:** To create value added, disciplined, high profile mechanical 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 use of the domain knowledge and expertise through periodic assignments and projects to continuously prove the functionality of mechanical engineering in terms of social and environmental aspects and to make scope for further improvements

Programme Outcomes (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.

Programme Specific Outcomes (PSOs)

- **PSOI: Creativity and Design:** Design a safety system to cater to the safety needs of any industry to prevent fire and other kinds of accidents.
- **PSOII: Core Competencies:** Identify and analyse hazards and risks involved in all kinds of work places and provide appropriate engineering solutions with design, materials and mechanisms.

Head of the Department

HEAD OF THE DEPARTMENT
Mechanical Engineering
PAAVAI ENGINEERING COLLEGF
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Principal

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NH-7, PACHAL Post, NAMAKKAL Dis

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.

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PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMANT OF INFORMATION TECHNOLOGY

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 education and mould the students to become qualified IT professionals with social responsibility, and to make them compete to the challenges ahead.

Mission

- To impart quality education that uses a goal oriented cutting-edge technology to meet the global standards.
- To create research and innovation culture and to develop socially responsible entrepreneurs.
- To increase the employability of students by maintaining the relationship with industries

Programme Educational Objectives (PEOs)

- **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 (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 teamwork:** 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.

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

- **PSO II: 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.

HEAD OF THE DEPARTMENT
DEPARTMENT OF INFORMATION TECHNOLOGY
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PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEARTMENT 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 members continuously 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.

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S. Kailasam, Professor & Head
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PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEARTMENT 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 members continuously 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,
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(AUTONOMOUS)
DEPARTMENT OF BIOTECHNOLOGY

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, ethicl, ecological, cultural and economic upliftment.

Department Vision and Mission

Vision

- To equip students with academic excellence to develop their innovative and entrepreneurial skill through engineering principles in the field of Bictechnology that address the real-world challenges.

Mission

- To provide high-quality streamlined education with the goal of preparing students for career success in the diverse field of bioengineering.
- To foster a dynamic learning environment that enables every bioengineer to develop their abilities and inventions in different biotechnological sectors and to foster an entrepreneurial spirit.
- To impart engineering expertise to graduates for long-term biotechnology research and development for both the present and the future.
- To empower students from diverse socioeconomic levels for the nourishment and benefit of society.

Programme Educational Objectives (PEO)

Engineering Graduates will be able to:

PEO I: Global reputation:

To enable the biotechnology graduates to develop research and professional skills to meet the industrial challenges with economic viability, sustainability and global competency.

PEO II: Fundamental Knowledge:

To apply the concepts of mathematics, science, and engineering for the modulations of biology with exposure of new cutting-edge technologies for the real-life application to benefit the society and nation.

PEO III: Continuous learning:

To understand the importance of education and to inculcate the ability of self-governing, discipline and leadership qualities with lifelong learning in the holistic sense of technological development.

Programme Outcomes (PO)

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 (PSO)

PSO I - Core Competencies

To implement technologies for industry-oriented processes and bioproducts development to address human requirements.

PSO II- Creativity and Design

To apply the knowledge of bioengineering and Technology to analyze, solve and interpret data in multidisciplinary facet for the sustainable development of the environment

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PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)
DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

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 foster excellence in Teaching, Research and Innovation, Grooming globally competent professionals for the societal development through continuous up skilling and upgrading of knowledge.

Mission:

- Providing outcome and value based quality Engineering education.
- Nurturing Innovation and ethical leadership through training programs.
- Enabling students to be future industry ready to tackle the challenges.
- Making Students socially responsible to create positive impact in the society.

The Program Educational Objectives (PEOs)

PEO 1: Global Reputation: To Adapt emerging technologies of Artificial Intelligence & Data Science and develop state of the art solutions in the fields of Manufacturing, Automation, Agriculture, Health-care, Education, and Cyber Security to become a globally recognized AI Engineer.

PEO 2: Fundamental Knowledge: To formulate, analyze, design, develop and test Artificial Intelligence and Data science based solutions for actual business and real time problems.

PEO 3: Continuous Learning: Embrace lifelong learning to meet ever changing developments in Artificial Intelligence and Data science through continuous upgrading of latest and futuristic technologies.

Program Outcome (POs)

PO1: Engineering Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and Artificial Intelligence (AI) and Data Science (DS) concepts to the solution of complex engineering problems.

PO2: Problem Analysis: Identify, formulate, 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 specified needs with appropriate consideration for public health and safety, 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 information to provide valid conclusions.

PO5: Modern Tool Usage: Create, select and apply appropriate techniques, resources, , modern engineering and data visualization tools and machine learning tools to complex engineering activities with an understanding of the limitations.

PO6: The Engineer and Society: Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice.

PO7: Environment and Sustainability: Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.

PO9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and 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 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 lifelong learning in the broadest context of Technological Change.

Program Specific Outcomes (PSOs)

PSO I: Integrate the foundations of mathematical, analytical, programming, machine learning, visualization, data analytics related tools and techniques to build AI enabled systems for solving real world problems

PSO II: Acquire skills to model the data science assisted systems and to analyze the data to solve business related problem and to pursue higher studies in Artificial Intelligence and Data Science in reputed Universities.

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PAAVAI ENGINEERING COLLEGE

(AUTONOMOUS)

M.E. COMPUTER SCIENCE AND ENGINEERING

VISION AND MISSION OF THE INSTITUTION

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.

VISION AND MISSION OF THE DEPARTMENT

Vision

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

Mission

- To produce innovative, competent and goal-oriented computer science engineers through cutting-edge educational experience.
- To enrich the knowledge of students by imparting state-of- the- art technology.
- To improve employability of students through Industry-Institution relationship and making them industry ready.
- To update the knowledge and qualification of the faculty members continuously.

The Program 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	An ability to independently carry out research / investigation and development work to solve Practical problems.
PO2	An ability to write and present a substantial technical report/document.
PO3	Students should be able to enhance their expertise in the field of Computer Science and Engineering.
PO4	Employ modern techniques, skills, and tools in computer to up skill students in a specific Computer Science and Engineering field.
PO5	Promote the development of socially relevant and sustainable eco-friendly projects by using technical knowledge and ethical principles.
PO6	Understand the relevance of continuous learning, stay updated and actively participate in technological advancements.

HEAD OF THE DEPARTMENT
COMPUTER SCIENCE & ENGINEERING
PAAVAI ENGINEERING COLLEGE
(AUTONOMOUS)
PACHAL (PO) NAMAKKAL - 637018

PRINCIPAL
PAAVAI ENGINEERING COLLEGE
PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE
(AUTONOMOUS)
Pachal, Namakkal -637 018.

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

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 and students 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 Communication systems, Signal Processing, Wave propagation 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 Dt.

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

M.E. ENGINEERING DESIGN

Programme Educational Objectives (PEOs)

- **PEO I:** An ability to independently perform research, development, and investigation tasks that solve real-life problems.
- **PEO II:** Being able to develop and deliver an extensive technical report or document.
- **PEO III:** Students should be able to demonstrate a suitable level of topic knowledge in accordance with the program's area of specialization. The degree of proficiency must satisfy the prerequisites of the relevant bachelor's degree.

Programme Outcomes (POs)

- **PO1:** An ability to independently carry out research /investigation and development work to solve practical problems.
- **PO2:** An ability to write and present a substantial technical report/document.
- **PO3:** According to the program's area of concentration, students should be able to demonstrate an appropriate level of mastery of the subject. The level of mastery needs to meet the requirements of the appropriate bachelor's program.
- **PO4:** Students will be able to identify, formulate, develop, and solve engineering challenges in addition to understanding the value of creativity in the design process.
- **PO5:** It should be possible for students to apply the methods and modern instruments required to solve engineering challenges.
- **PO6:** Responsibility for learning values and professionally, along with developing confidence for self-education and the capacity for lifelong learning.

Head of the Department

HEAD OF THE DEPARTME
Mechanical Engineering
PAAVAI ENGINEERING COLLEC
NH-44, PACHAL (Po) Namakkal - 637 01

Principal

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

PAAVAI ENGINEERING COLLEGE, NAMAKKAL – 637018
(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	Get elevated as technically competent power engineer to cater the needs of electrical power industry, research and educational institutions.
PEO II	To become an entrepreneur and develop indigenous technology to meet the requirements of the societal needs.
PEO III	To make students evolve themselves as a consultant and provide solutions to the practical problems faced by power industries.

Programme Outcomes (PO's)	
Engineering Graduates will be able to:	
PO1	An ability to independently carry out the research/investigation and development work to solve practical problems.
PO2	An ability to write and present a substantial technical report/document.
PO3	An ability to demonstrate thorough mastery in power system engineering for the consistent, reliable, and secure operation of the power grid.
PO4	To model and analyse power system components and perform steady state and dynamics analysis.
PO5	To design adaptive protection schemes equipped to adapt the growing integration of renewable energy sources into the grid.
PO6	To develop controllers for the enhancement of damping and alleviation of oscillations in power systems.

Dr. G. BALAJI, M.E., Ph.D.,
Professor & HOD
Department of Electrical and Electronics Engineering
Paavai Engineering College
Namakkal - 637 018.

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

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)
DEPARTMENT OF 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 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 Civil 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-Institution relationship and making them industry ready.
- **Research& Development:** To extend the knowledge of the faculty members continuously through research and development initiatives.

PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

PEO I : Attain the essential professional competencies in structural engineering requisite for success in careers within both public and private sector organizations.

PEO II : Implement feasible solution to overcome societal problems using professional knowledge which results in sustainability.

PEO III : Exhibit professional and ethical attitude, good communication skills and pursue life-long learning skills needed for a successful professional career.

PROGRAMME OUTCOMES (POs):

PO1 : An ability to independently carry out research / investigation and development work to solve practical problems.

PO2 : An ability to write and present a substantial technical report / document.

PO3 : Demonstrate a degree of mastery over the area as per the specialization of the program. The mastery should be at a level higher than the requirements in the appropriate bachelor program.

PO4 : Analyze a system, component or process in the areas of Structural Engineering using standard methods and advanced tools.

PO5 : Design a system, Structural elements or process in the areas of Structural Engineering as per codal recommendations.

PO6 : Develop confidence for self-education and ability for life-long learning with professionalism.

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

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

PAAVAI ENGINEERING COLLEGE, NAMAKKAL – 637 018

(AUTONOMOUS)

DEPARTMENT OF MASTER OF BUSINESS ADMINISTRATION

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 (PEO's):

1. To prepare management graduate to empower in the areas of business, managerial, communication, professional, public speaking, leadership, marketing and team building skills.
2. To prepare management graduate for immediate employment and continuous learning in the emerging areas of management discipline.
3. To prepare our students to be innovative, ethical, responsible, and responsive leaders and managers, who will make difference in their professions and in the society.

PROGRAMME OUTCOMES (PO's):

The students of Master of Business Administration Programme of Paavai Engineering College, Namakkal should, at the time of being graduated, be in possession of

a) Ability to apply conceptual business and management knowledge to solve business problems.
b) Capacity to understand global market and its impact on business firms, common people, and the country economy.
c) An awareness of current issues like cultural diversity, social responsibility, sustainability, analytical, innovation, knowledge management in business organization.
d) Ability to work effectively on multi-disciplinary teams.
e) Ability to analyze business problems and opportunities as well as making effective decisions.
f) Recognize and address ethical issues and values and apply them in organizational settings.
g) Competent in key business functional areas including Production, Operation, Accounting, Finance, Marketing, Business Analytics, Human Resource Management.
h) Ability to communicate effectively, both in writing and orally.
i) Capable to manage information effectively by scanning, organizing, and analyzing data for knowledge sharing and decision making.
j) Knowledge of contemporary issues (Social awareness).
k) Ability to use current techniques, skills, and tools necessary for managerial practice.

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

DEPARTMENT PROFILE

The Department of Master of Business Administration was established in 2005 with the objective of imparting quality education in the field of Management Studies. Since its inception, the department has expanded and grown in terms of dissemination of knowledge within and outside curriculum and Managerial skill development activities & Entrepreneurship. The curriculum review is conducted periodically so as to keep the students updated with the latest trends in the corporate world at the global level. The class rooms are well-equipped with all audio-visual facilities and other Educational Technological aids.

COURSES OFFERED

M.B.A – Master of Business Administration

INNOVATION IN PROPOSED CURRICULUM

- Case Study Method of learning has been introduced in most of the papers to improve the problem solving and decision making skills of the students.
- Business Communication Laboratory has been introduced in the 1st semester to improve the communication skills required for managers.
- Business Plan Development has been introduced in the 3rd semester to improve the ability of the students to identify potential business opportunities and design business solutions.
- Summer Internship as a Laboratory course has been introduced in 3rd semester to develop leadership qualities, team building, creative thinking and time management skills.

HEAD OF THE DEPARTMENT
Management Studies
PAAVAI ENGINEERING COLLEGE
NH-7, PACHAL (Po) Namakkal - 637018.

PRINCIPAL
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NH-7 PACHAL Post, NAMAKKAL Dist

PAAVAI ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

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 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

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.

- **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.

- **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.

- **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

Program Specific Outcomes (PSOs)

- **PSO I**: **Core Competencies**: Foundation of Computer System and Software development. Ability to understand the principles and working of computer systems for the development of software solutions.

- **PSO II**: **Creativity and Design**: 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.

HoD/MCA

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

PRINCIPAL

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NH-7, PACHAL Post, NAMAKKAL Dist