

K.S.R. COLLEGE OF ENGINEERING

TIRUCHENGODE - 637215

(An Autonomous Institution, Affiliated to Anna University, Chennai)

Vision of the Institution

We envision to achieve status as an excellent educational institution in the global

knowledge hub, making self-learners, experts, ethical and responsible engineers,

technologies, scientists, managers, administrators, and entrepreneurs who will

significantly contribute to research and environment-friendly sustainable growth of

the nation and the world.

Mission of the Institution

To inculcate in the students' self-learning abilities that enable them to become

competitive and considerate engineers, technologists, scientists, managers,

entrepreneurs, and administrators by diligently imparting the best of education,

nurturing environmental and social needs.

• To foster and maintain a mutually beneficial partnership with global industries

and Institutions through knowledge sharing, collaborative research, and

innovation.

Quality Policy

We, at K.S.R. College of Engineering, shall strive hard continuously, to achieve

academic excellence in Science, Engineering, Technology, Management, and

Research and to produce the most competent Scientists, Engineers, Entrepreneurs,

Managers, and Researchers thorough, objective and innovative teaching methods by

dedicated and duty conscious faculty, continuous and consistent updating of

facilities, welfare and quality improvement of the faculty and a system of continuous

process improvement.

PRINCIPAL-K.S.R. COLLEGE OF ENGINEERING K.S.R. KALVI NAGAR.

TIRUCHENGODE 627 246

DEPARTMENT OF AUTOMOBILE ENGINEERING

Vision of the Department:

DV To build long tradition of excellence to be the leading Automobile Engineering program in partnership with our students, alumni, industry and government. The department shall provide the students with educational experiences that will enable them to become leaders in their profession and society. The department shall also maintain and develop world-class research programs that complement our educational mission, address the evolving needs of industry and society, and contribute to economic and social development in the State of Tamil Nadu, across the nation, and around the world.

Mission of the Department:

- **DM 1** To serve students, industry and society by fulfilling the missions of discovery, learning, and engagement through the creation and dissemination.
- **DM 2** To apply Engineering methods, knowledge, and professional standards relevant to the practice of Automobile Engineering in the many aspects of modern life where it plays a crucial role.

Programme Educational Objectives (PEOs): (B.E. Automobile Engineering)

The graduates of the programme will be able to

- **PEO 1 Professional Excellence:** Graduates are knowledgeable in the areas of Automobile industries and successful in their professional career.
- **PEO 2 Eternal learning:** Graduates Continue significant work in their chosen career, and demonstrate social and ethical responsibility.
- **PEO 3** Team Management: Graduates perform both independently and as a member of a team in project management.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

- **PSO1** Research culture: Meet the needs of Industries/Society and the country in general through various research activities.
- **PSO2** Core values: Synthesize the data and technical concepts for application to Automobile Engineering software, new Challenges for multi-disciplinary projects and ambition of life-long learning.

DEPARTMENT OF CIVIL ENGINEERING

Vision of the Department:

DV To impart knowledge and excellence in Civil Engineering and Technology with global perspectives to our students and to make them ethically strong engineers to create conducive environment.

Mission of the Department:

- **DM 1** To promote innovative thinking in the minds of budding engineers and to make the department a centre of excellence in the field of Engineering.
- **DM 2** To provide knowledge base and moral autonomy to address regional, national and international needs in Civil Engineering.

Programme Educational Objectives (PEOs): (B.E. Civil Engineering)

The graduates of the programme will be able to

- **PEO 1** Successful Career: Design and contribute to the infrastructure development project being undertaken by various sectors and evolves as a successful engineer.
- **PEO 2** Lifelong Learning: Pursue higher studies so that they can contribute to the society in terms of academic, research, sustainable development and other allied fields.
- **PEO 3** Service to Society: Work effectively and ethically in multicultural and multidisciplinary groups in accordance with technological change for the growth of Civil Engineering projects.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

- **PSO1** Research Culture: Update research knowledge in Civil Engineering to solve the unknown issues that they have not encountered before.
- **PSO2** Core Values: Contribute core Universal values and social good in the community by Civil Engineering Profession.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Vision of the Department:

DV To create ever green professionals for software industry, academicians for knowledge

cultivation and researchers for contemporary society modernization.

Mission of the Department:

DM 1 To produce proficient design, code and system engineers for software development.

DM 2 To keep updated contemporary technology and fore coming challenges for welfare of the

society.

Programme Educational Objectives (PEOs): (B.E Computer Science and Engineering)

The graduates of the programme will be able to

PEO 1 Problem Solving Skills: Figure out, formulate, analyze typical problems and develop

effective solutions by imparting the idea and principles of science, mathematics,

engineering fundamentals and computing.

PEO 2 Professional Ability: Competent professionally and successful in their chosen career

through life-long learning.

PEO 3 Social and Ethical Values: Excel individually or as member of a team in carrying out

projects and exhibit social needs and follow professional ethics.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

PSO1 Technical competency: Develop and Implement computer solutions that accomplish

goals to the industry, government or research by exploring new technologies.

PSO2 Professional awareness: Grow intellectually and professionally in the chosen field.

PRINCIPAL

K.S.R. COLLEGE OF ENGINEERING

K.S.R. KALVI NAGAR,

TIRUCHENGODE-637 215

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENIGNEERING

Vision of the Department:

DV We envision a Department that leads in the field of Electrical and Electronics Engineering through education, training and research committed to influence the direction of the field and make a constructive contribution to society wherein the Department can thrive and grow.

Mission of the Department:

- **DM 1** To create professionally competent and resourceful Electrical and Electronics Engineers.
- **DM 2** To promote excellence in teaching, pioneering research and innovation for a sustainable growth of the nation and enrichment of humanity.

Programme Educational Objectives (PEOs): (B.E Electrical and Electronics Engineering)

The graduates of the programme will be able to

- **PEO 1** Employability and Higher studies: Excel in professional career and/or higher education by acquiring knowledge in basic engineering, science and mathematics in Electrical and Electronics Engineering.
- **PEO 2** Sustainable Engineering Solutions: Develop and apply engineering solutions for solving contemporary social and human issues with realistic constraints through modern tools.
- **PEO 3** Interpersonal and Ethical Proficiency: Exhibit professional and ethical standards, effective communication skills, teamwork spirit and multidisciplinary approach for successful careers in Indian and Multinational companies and to engage in lifelong learning.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

- **PSO1** Proficiency in core: Realize the generation, transmission, distribution and utilization of electrical power.
- **PSO2** Professional Skill: Formulate the testing procedures needed to make the measurements of electrical and electromagnetic quantities and to provide solution to the real time problems.

(Autonomous)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENIGNEERING

Vision of the Department:

DV We envision as a center of excellence in the field of Electronics and Communication

Engineering to produce technically competent graduates with diverse teaching and

research environments.

Mission of the Department:

DM 1 To educate the students with the state of art technologies to meet the growing challenges

of the industries.

DM 2 To develop an innovate, competent and ethical Electronics and Communication Engineer

with strong foundations to enable them for continuing education.

Programme Educational Objectives (PEOs): (B.E Electronics and Communication Engineering)

The graduates of the programme will be able to

PEO 1 Employability and Higher education: Excel in Professional career and higher

education by acquiring knowledge in mathematical, social, scientific & engineering

principles.

PEO 2 Core Competence: Analyze, design and develop/implement core engineering problems

in communication systems that are technically sound, economically feasible and socially

acceptable.

PEO 3 Interpersonal skills and Team work: Exhibit professionalism, ethical communicating

skills and team work by engaging in lifelong learning for sustainable development of the

society.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

PSO1 Professional Skill: Specify, design and test modern electronic systems that perform

analog and digital processing functions.

PSO2 Problem - Solving Skills: Design essential elements (circuits and antennas) of modern

RF/Wireless communication systems.

DEPARTMENT OF INFORMATION TECHNOLOGY

Vision of the Department:

DV To produce excellent and competent software professional, researchers and responsible engineers, who can significantly contribute to environment friendly societal industry through quality education.

Mission of the Department:

- **DM 1** To make the students competitive and efficient in technical field through technological transformations' in Information Technology, by providing them advanced curriculum, infrastructure and nurturing human values.
- **DM 2** To provide an excellent forum for higher studies that leads to careers as Computer and IT professionals in the widely diversified domains of industry, government and academia.

Programme Educational Objectives (PEOs): (B.Tech - Information Technology)

The graduates of the programme will be able to

- **PEO 1** Software Competence: Incorporate with necessary background in science and engineering fundamentals to analyze and solve IT problems and to prepare them for skilled manpower in the field of IT for subsequently generation.
- **PEO 2** Information and Communication: Enhance in various latest programming languages, technologies, software development process and communication technology.
- **PEO 3** Team Fortitude: Attain successful career in industry through effective communication skills, team spirit, learning ethical responsibilities, attitude and adapt to emerging technologies.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

- **PSO1** Technical Competency: Develop and Implement computer solutions that accomplish goals to the industry, government or research by exploring new technologies.
- **PSO2** Professional Awareness: Grow intellectually and professionally in the chosen field.

(Autonomous)

DEPARTMENT OF MECHANICAL ENGINEERING

Vision of the Department:

DV To be a centre of excellence in the field of Mechanical Engineering for providing its

students and faculty with opportunities for excel in education and targeted research themes

in emerging areas.

Mission of the Department:

DM 1 To excel in academic and research activities that meet the industrial and social needs.

DM 2 To develop competent, innovative and ethical mechanical engineers.

Programme Educational Objectives (PEOs): (B.E. Mechanical Engineering)

The graduates of the programme will be able to

PEO 1 SUCCESSFUL CAREER: Identify, design and apply the technical skills to solve

mechanical engineering problems for enhancing the quality of life.

PEO 2 LIFELONG LEARNING: Apply the modern tools and techniques to face the challenges in

mechanical and related engineering areas.

PEO 3 SERVICE TO SOCIETY: Understand the responsibility, communicate and implement

innovative ideas in multidisciplinary teams ethically for uplifting the society.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

PSO1 Research Culture: Read literature, do research on new mechanical engineering

problems and publish the results through patents, journals, conferences and

symposium.

PSO2 Industry Exposure: Enhance professional experience through industrial / inplant

training.

(Autonomous)

DEPARTMENT OF SAFETY AND FIRE ENGINEERING

Vision of the Department:

DV To emerge as a centre of excellence in Safety and Fire Engineering using the framework of

quality education through advanced industry, research, entrepreneurship and society.

Mission of the Department:

DM 1 To provide quality education and to prepare nationally and internationally competitive

students for a successful career in safety, occupational health, environmental

management and fire protection engineering.

DM 2 To inculcate the need for sustainable development in research and innovations

Programme Educational Objectives (PEOs): (B.E. Safety and Fire Engineering)

The graduates of the programme will be able to

PEO 1 Have a sound knowledge in Safety and Fire Engineering aspects to provide solutions for

Potential hazards.

PEO 2 Expertise in the area of Thermal, Chemical Reactions, Structural Stability and

Environmental Impacts.

PEO 3 Practice their Profession through evaluation, communication, ethics and social

responsibility.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

PSO1 Design a safety and fire system for industries, building and other area thereby saving the

loss due to a fire and accidents.

PSO₂ Analyze hazards in a work place and to rectify it by suitable safety and fire engineering

solutions.

K.S.R. COLLEGE OF ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING

Vision of the Department:

DV To impart knowledge and excellence in Civil Engineering and Technology with global

perspectives to our students and to make them ethically strong engineers to create

conducive environment.

Mission of the Department:

DM 1 To promote innovative thinking in the minds of budding engineers and to make the

department a centre of excellence in the field of Engineering.

DM 2 To provide knowledge base and moral autonomy to address regional, national and

international needs in Civil Engineering.

Programme Educational Objectives (PEOs): (M.E- Construction Engineering and Management)

The graduates of the programme will be able to

PEO 1 Successful Career: To import the concepts and technical education needed for a

career in Construction Engineering and management.

PEO 2 Life-long Learning: To provide students with the knowledge and dexterity to perform

effectively in the workplace with the communication skills needed to deal with fellow

workers, clients and public.

PEO 3 Service to Society: To promote a strong sense of ethics, professionalism, a respect for

diversity and a knowledge of contemporary professional, social and global issues.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

PSO1 Research Culture: Design, integrated and administrate new construction problems

using technology and literature.

PSO2 Core Values: Contribute core Universal values and social good in the community.

DEPARTMENT OF CIVIL ENGINEERING

Vision of the Department:

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Mission of the Department:

- **DM 1** To promote innovative thinking in the minds of budding engineers and to make the department a centre of excellence in the field of Engineering.
- **DM 2** To provide knowledge base and moral autonomy to address regional, national and international needs in Civil Engineering.

Programme Educational Objectives (PEOs): (M.E- Structural Engineering)

The graduates of the programme will be able to

- **PEO 1** Successful Career: Provide students to learn the detailed concepts of structural engineering for designing Civil Engineering structures.
- **PEO 2** Life-long Learning: Have successful career in different sectors of Structural Engineering Industry and technical institutes through life-long learning.
- **PEO 3** Service to Society: Independently analyze socio-industrial problems and provide feasible solutions through critical thinking and research.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

- **PSO1** Knowledge of Structural Engineering Discipline: Profound knowledge of Structural Engineering discipline, with an ability to evaluate, analyze and synthesize the existing and new knowledge in the field of structural design with wide applications.
- **PSO2** Critical Analysis of Structural Engineering Issues and Innovation: Critically analyze complex Structural Engineering problems, apply independent judgment for synthesizing information and make innovative advances in a theoretical, practical and policy context.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Vision of the Department:

DV To create ever green professionals for software industry, academicians for knowledge cultivation and researchers for contemporary society modernization.

Mission of the Department:

DM 1 To produce proficient design, code and system engineers for software development.

DM 2 To keep updated contemporary technology and fore coming challenges for welfare of the society.

Programme Educational Objectives (PEOs): (B.E Computer Science and Engineering)

The graduates of the programme will be able to

PEO 1 Apply the necessary mathematical tools and fundamental & advanced knowledge of computer science & engineering.

PEO 2 Develop computer/software/network systems understanding the importance of social, business, technical, environmental, and human context in which the systems would work.

PEO 3 Contribute effectively as a team member/leader, using common tools and environment, in computer science and engineering projects, research, or education.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

PSO1 Scholarship of Knowledge: Acquire in-depth knowledge of specific discipline or professional area, including wider and global perspective, with an ability to discriminate, evaluate, analyze and synthesize existing and new knowledge, and integration of the same for enhancement of knowledge.

PSO2 Critical Thinking: Analyze complex engineering problems critically, apply independent judgment for synthesizing information to make intellectual and/or creative advances for conducting research in a wider theoretical, practical and policy context.

KSRCE/QM/5.5.3/01/ECE

K.S.R. COLLEGE OF ENGINEERING: TIRUCHENGODE - 637 215

(Autonomous)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENIGNEERING

Vision of the Department:

DV We envision as a center of excellence in the field of Electronics and Communication

Engineering to produce technically competent graduates with diverse teaching and

research environments.

Mission of the Department:

DM 1 To educate the students with the state of art technologies to meet the growing challenges

of the industries.

DM 2 To develop an innovate, competent and ethical Electronics and Communication Engineer

with strong foundations to enable them for continuing education.

Programme Educational Objectives (PEOs): (M.E. - Communication Systems)

The graduates of the programme will be able to

PEO 1 Apply concepts of Statistics, Linear Algebra and Residue Calculus in Communication,

Signal processing and Electromagnetics domain

PEO 2 Solve issues in real wor1d communication sectors, and develop feasible and

viable communication systems.

PEO 3 Inculcate effective communication skills, produce effective team work, professional

ethics and pursue research.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

PSO1 Research Culture: Use the knowledge of signal processing, communications, networks

and Electromagnetics to simulate algorithms in virtual environments and to perform

research to implement embedded and VLSI platforms.

PSO₂ Core Values: Contribute core Universal values and social good m the community

TIRUCHENGODE-637 215

(Autonomous)

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENIGNEERING

Vision of the Department:

D۷ We envision a Department that leads in the field of Electrical and Electronics Engineering

through education, training and research committed to influence the direction of the field

and make a constructive contribution to society wherein the Department can thrive and

grow.

Mission of the Department:

DM 1 To create professionally competent and resourceful Electrical and Electronics Engineers.

DM 2 To promote excellence in teaching, pioneering research and innovation for a sustainable

growth of the nation and enrichment of humanity.

Programme Educational Objectives (PEOs): (M.E. - Power Electronics and Drives)

The graduates of the programme will be able to

PEO 1 Excel in professional career with technical knowledge, skills and ability to design,

develop and test power electronic converters and drives using advanced tools.

PEO 2 Technically competent and Exhibit leadership qualities to pursue career in broad

area of Power Electronics and Drives globally.

PEO₃ Engage in life-long learning through independent study, projects and research.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

PSO1 Evaluate critically one's own work and make decisions by considering professional,

social and ethical responsibilities.

PSO2 Recognize the need and engage in life-long learning through independent study,

projects, research and to work in multidisciplinary teams.

(Autonomous)

<u>DEPARTMENT OF INFORMATION TECHNOLOGY</u>

Vision of the Department:

DV To produce excellent and competent software professional, researchers and responsible engineers, who can significantly contribute to environment friendly societal industry through

quality education.

Mission of the Department:

DM 1 To make the students competitive and efficient in technical field through technological

transformations' in Information Technology, by providing them advanced curriculum,

infrastructure and nurturing human values.

DM 2 To provide an excellent forum for higher studies that leads to careers as Computer and IT

professionals in the widely diversified domains of industry, government and academia.

Programme Educational Objectives (PEOs): (M.E - Information Technology)

The graduates of the programme will be able to

PEO 1 Incorporate with necessary background and significantly contribute to contemporary

research in information technology to investigate complex problems.

PEO 2 Enhancing the abilities for successful teaching/research careers in industry or

academia

PEO 3 Apply and disseminate intellectual ideas related to IT field and advance in their

profession.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

PSO1 Research Culture: Integrate and administrate the design and solutions through IT in

software industry, society and R&D activities.

PSO2 Core Values: Contribute core universal values and social good in the community.

K.S.R. COLLEGE OF ENGINEERING K.S.R. KALVI NAGAR,

TIRUCHENGODE-637 215

DEPARTMENT OF MECHANICAL ENGINEERING

Vision of the Department:

DV To be a centre of excellence in the field of Mechanical Engineering for providing its students and faculty with opportunities for excel in education and targeted research themes in emerging areas.

Mission of the Department:

- **DM 1** To excel in academic and research activities that meet the industrial and social needs.
- **DM 2** To develop competent, innovative and ethical mechanical engineers.

Programme Educational Objectives (PEOs): (M.E. - Industrial Safety Engineering)

The graduates of the programme will be able to

- **PEO 1** Enhance the skills and knowledge on safety, health and environment with respect to industry and research, for executing safe methods in complex engineering problems.
- **PEO 2** Understand the impact of safety, health and environmental solutions on productivity, quality and societal at large.
- **PEO 3** To comply with legal safety, ethical and contractual requirements, professional practices to contribute the community for the sustainable development of society.

Programme Specific Outcomes (PSOs)

Engineering Graduates will be able to:

- **PSO1 RESEARCH CULTURE:** Read literature, do research on new industrial safety, health and environmental problems and publish the results through patents, journals, conferences and symposium.
- **PSO2 CORE VALUES:** Contribute the core universal values and social good to the community with respect to industrial safety, health and environment.

K.S.R. COLLEGE OF ENGINEERING: TIRUCHENGODE - 637 215 (Autonomous) DEPARTMENT OF BUSINESS ADMINISTRATION (MBA)

Vision of the Department:

To Develop the Student into a competing Entrepreneur and Manager by imparting a quality **DV.** education who will also significantly contribute to environment friendly sustainable growth of the nation and the world.

Mission of the Department:

DM1. Shaping the students to compete with the competitive environment by cultivating required management and research skills. The department provides an opportunity to enhance technologically advanced skills by offering the best innovative, ethical and quality education.

The students are trained to meet the expectation of the industry and tries to balance the **DM2.** gap between department and industry through MOU with reputed company, Industrial Visit and inviting the resource person for knowledge sharing to get practical exposure.

Programme Educational Objectives (PEOs): Master of Business Administration

The graduates of the programme will be able to

- **PEO1.** (Creative Managers) Graduates of the program can face the emergent global challenges in management.
- **PEO2.** (Career opportunity) -Graduates will have competent and skill to adapt the professional career.
- **PEO3.** (Continuous learning) -Graduates will persist to learn the value based education and to adapt in business.
- **PEO4.** (Service to Industry) Graduates will develop effective interaction between industry and institute for mutual benefits.
- **PEO5.** (Services to Society) Graduate will create ethical environment towards research and innovative ideas for long term benefits to the society.

Programme Specific Outcomes (PSOs)

Master Graduates will be able to:

- **PSO1** Research Culture: An ability to cultivate the research skills among the students in finance, marketing, human resource, production, system, other management and interdisciplinary areas to address social and industrial issues.
- **PSO2** Core Values: An ability to develop industry ready managers, administrators and entrepreneurs with ethical and core values, to need for the society and organizational growth.

DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS

Vision of the Department:

DV. To develop professionals having good knowledge, skills and attitude in the field of computer applications for the betterment of industry and society.

Mission of the Department:

- **DM1.** To provide high quality education in the field of computer applications and there by create computer professionals with proper leadership skills, commitment and moral values.
- **DM2.** To educate students to be successful, ethical, and effective problem-solvers and life-long learners who will contribute positively to the economic well-being of our region and nation.

Programme Educational Objectives (PEOs): Master of Computer Applications

The graduates of the programme will be able to

- **PEO1.** Employability and Higher education: Demonstrate high quality fundamental knowledge in varied sectors and have the ability to develop innovative software on emerging technologies and provide access to higher degree by research programs.
- **PEO2.** Core Competence: Work as teams on multi-disciplinary projects with effective communication skills, critical thinking, individual, team work and leadership qualities necessary to function productively and professionally.
- **PEO3.** Interpersonal skills and Team work: Understand the social and ethical professionalism, public policy and aesthetics that allows them to develop sufficient awareness of the societal impact of technology and the life-long learning needed for a successful professional career as a scientist / technocrat / an entrepreneur.

Programme Specific Outcomes (PSOs)

Master Graduates will be able to:

- **PSO1** Technical competency: Apply their knowledge and skills to develop and Implement computer solutions that accomplish goals important to the industry, government or research area in which they are working. They will explore and integrate new technologies.
- PSO2 Professional awareness: Graduates will continue to grow intellectually and professionally in their chosen field.