



KHAMMAM INSTITUTE OF TECHNOLOGY & SCIENCES, KHAMMAM

VISION & MISSION

Vision:

To be a Centre for Excellence in value based quality Professional Education carving Research, Innovation and Entrepreneurial Attitude that transforms students into globally competent society sensitised engineers.

Mission:

- *To create a student centric institute support with innovative pedagogy*
- *To maximise the utilisation of the state-of-the-art infrastructure for the overall development of the individuals.*
- *To encourage independent thinking and application-oriented collaborative research in areas of tropical interest to contribute to the development of the region and the nation.*
- *To provide an effective teaching & learning environment for training technical graduates with values, entrepreneurial attitude and globally employable skills.*
- *To encourage participation in Sports, Co-curricular and Extra-curricular activities resulting in over-all personality development.*

Vision and Mission statements of the Institution are made available on Institute website (<http://kits.edu.in>), at central facilities such as Library, Computer center, Principal Office and in all the departments. They are also available in all Institutional level documents like Blue Books, Record Books, Annual Magazines, and News Letter and in Study Material provided to the Students.

PROGRAM OUTCOMES [PO's]

- a) **Engineering Knowledge:** an ability to Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- b) **Problem Analysis:** an ability to Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- c) **Design/development of Solutions:** an ability to 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.
- d) **Conduct Investigations of Complex Problems:** an ability to 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.
- e) **Modern Tool usage:** an ability to 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.
- f) **The Engineer and Society:** an ability to 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.
- g) **Environment and Sustainability:** an ability to understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- h) **Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- i) **Individual and Team Work:** an ability to function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- j) **Communication:** an ability to 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.
- k) **Project Management and Finance:** an ability to demonstrate knowledge and understanding of the engineering, management principles and contemporary issues and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- l) **Life-long Learning:** an ability to recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

DEPARTMENT OF CIVIL

Program Specific Outcomes (PSOs)

PSO1: Graduates will be able to adapt creative thinking and problem solving approach in planning, analysis, design and estimation of civil engineering structures and services.

PSO2: Able to act as renowned consultant in all divisions of Civil Engineering for providing sustainable solutions to practical problems.

PSO3: Graduates will be able to acquire updated knowledge to provide cost-effective solutions to societal engineering problems

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO 1

To produce the students who can excel in their professional career and/or in higher education by acquiring knowledge in mathematical, computing and engineering principles.

PEO 2

To produce the students who can analyze any real life problem and design structures which are not only safe, eco-friendly and economical but also socially acceptable.

PEO 3

To train the students to exhibit the ethical professionalism by imbibing right attitude and built teamwork.

PEO 4

To produce the students who excel as an entrepreneur by adapting lifelong learning practices and facing the challenges with acquired knowledge through research and development and innovative thinking.

DEPARTMENT OF EEE

Program Specific Outcomes (PSOs)

PSO-1

To apply the fundamental engineering knowledge to identify, formulate, design and investigate complex engineering problems of electrical & electronics engineering. To give the students the scope and ability to participate in competitive examinations like GATE, IES, PSU's etc and to attain gainful employment.

PSO-2

To combine the emerging technologies into our core area of power systems and power electronics so as to deal with the environmental issues effectively. To commit ourselves to the highest ethical standards both individually and professionally.

Program Educational Objectives (PEOs)

The Programme Educational Objectives of the B.Tech in Electrical and Electronics Engineering programme are given below and are numbered from PEO1 to PEO4.

PEO-1:

To prepare the students for academic and professional excellence in the field of Electrical and Electronics Engineering

PEO-2:

To train the students to adapt to the innovations and technological developments in the area of electrical and electronics engineering so as to prepare them for their career.

PEO-3:

To impart knowledge and skills so as to enable the students to be employable with ethical values in multidisciplinary environments.

PEO-4:

To encourage the graduates to pursue higher studies, research assignments and as entrepreneurs.

DEPARTMENT OF MECH

Program Specific Outcomes (PSOs)

PSO 1: An Ability to recognize the Global issues like Green initiatives and Alternate Energy Sources and relate the mechanical engineering solutions to meet such requirements.

PSO 2: An ability to take technology to village and to recognize the rural requirements.

PSO 3: An ability to become an entrepreneur or related industry or be able to get qualified in competitive examinations like GRE, GATE, CAT, GMAT, PSUs etc.

PROGRAM EDUCATIONAL OUTCOMES {PEOs}

PEO 1: To provide a solid foundation to build a professional career, take-up higher studies with sound knowledge in Mathematics, Science and Mechanical Engineering along with fundamentals in programming, modeling and design to acquire problem solving skills with global competence.

PEO 2: To instill strong ethical values and leadership qualities in graduates that makes them socially responsible citizens.

PEO 3: To widen the thirst for knowledge by encouraging them to develop R&D skills alongside lifelong learning skills.

PEO 4: To make graduates as Entrepreneurs by inculcating the qualities required for Entrepreneurship.

DEPARTMENT OF ECE

Program Specific Outcomes (PSOs)

The ability to absorb and apply fundamental knowledge of core Electronics and Communication Engineering subjects in the analysis, design, and development of various types of integrated electronic systems as well as to interpret and synthesize the experimental data leading to valid conclusions.

PSO-2: Successful Career

Excellent adaptability to changing work environment, good interpersonal skills as a leader in a team in appreciation of professional ethics and societal responsibilities.

Program Educational Objectives (PEOs)

The Programme Educational Objectives of the B.Tech in Electronics and Communications Engineering programme are given below and are numbered from PEO1 to PEO5.

PEO-1: To provide the graduates with solid foundation in Electronics and Communications Engineering along with the fundamentals of Mathematics, Science, Computing and Engineering with a view to impart in them high quality technical skills like designing, modeling, analyzing and problem-solving with global competence.

PEO-2: To prepare and motivate graduates with recent technological developments related to core subjects like programming, databases, design of compilers and Network Security aspects and future technologies so as to contribute effectively for Research & Development by participating in professional activities like publishing and seeking copy rights.

PEO-3: To train the graduates for a high degree of employability in both public and private sector industries at national and international level by initiating in them professional competence, ethical administrative acumen and ability to handle critical situations.

PEO-4: To prepare the graduates for higher education by providing training to excel in competitive examinations and to improve their technical and intellectual capabilities for life-long learning process.

PEO-5: To train the graduates to have basic interpersonal skills and sense of social responsibility that paves them a way to become good team members and leaders.

DEPARTMENT OF CSE

Program Specific Outcomes (PSOs)

The ability to understand, analyze and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics and networking for efficient design of computer based systems of varying complexity.

PSO-2: Successful Career and Entrepreneurship:

The ability to employ modern computer languages, environments, and platforms in creating innovative career paths to be an entrepreneur and a zest for higher studies/employability in the field of Computer Science & Engineering.

Program Educational Objectives (PEOs)

The Programme Educational Objectives of the B.Tech in Computer Science & Engineering programme are given below and are numbered from PEO1 to PEO4.

PEO-1 : To provide the graduates with solid foundation in computer science and engineering along with fundamentals of Mathematics and Sciences with a view to impart in them high quality technical skills like modelling, analyzing, designing, programming and implementation with global competence and helps the graduates for life-long learning.

PEO-2: To prepare and motivate graduates with recent technological developments related to core subjects like programming, databases, design of compilers and Network Security aspects and future technologies so as to contribute effectively for Research & Development by participating in professional activities like publishing and seeking copy rights.

PEO-3: To train graduates to choose a decent career option either in high degree of employability /Entrepreneur or, in higher education by empowering students with ethical administrative acumen, ability to handle critical situations and training to excel in competitive examinations.

PEO-4 : To train the graduates to have basic interpersonal skills and sense of social responsibility that paves them a way to become good team members and leaders.