PO's, PEO's & PSO's

Computer Science and Engineering (PO's)

Engineering programmes offered by MRITS demonstrate that their students attain the following 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.

Computer Science and Engineering (PEO's)

PEO1: The graduates of the program will understand the concepts and principles of Computer Science and Engineering inclusive of basic sciences.

PEO2: The program enables the learners to provide the technical skills necessary to design and implement computer systems and applications, to conduct open-ended problem solving, and apply critical thinking.

PEO3: The graduates of the program will practice the profession with work effectively on teams to communicate in written and oral form, ethics, integrity, leadership and social responsibility through safe engineering leading them to contribute their might for the good of the human race.

PEO4: The program encourages the students to become lifelong activity and as a means to the creative discovery, development, and implementation of technology as well as to keep up with the dynamic nature of the Computer Science and Engineering discipline.

Computer Science and Engineering (PSO's)

PSO1: Design and development of software applications by using data mining techniques.

PSO2: Enrichment of graduates with global certifications to produce reliable software solutions.

Electronics and Communication Engineering (PO's)

Engineering programmes offered by MRITS demonstrate that their students attain the following outcomes:

1. Graduates will demonstrate ability to apply knowledge of Mathematics, Science and Engineering.
2. Graduates will have the knowledge of how to apply vector calculus, differential equations, complex variables, matrix theory, physics and probability theory in electronics and communication engineering fields.
3. Graduate will demonstrate an ability to visualize and work on laboratory and multidisciplinary tasks.
4. Graduates should have the ability to design and synthesize a system, a component or process as per needs and specifications.
5. Graduates will have ability to function on Multidisciplinary teams
6. Graduates will demonstrate an ability to solve the practical problem that arises by identifying and relating them to the basic subjects they have studied.
7. Graduates will have knowledge of professional and ethical responsibilities.
8. Graduates are expected to communicate effectively.
9. Graduates will develop confidence for self study and ability for lifelong learning.
10. Graduates will show the understanding of impact of engineering solutions on the society and also will be aware of contemporary issues.
11. Graduates will have knowledge on modern engineering tools, software and equipment to analyze problems.
12. Graduates will be in a position to serve the mankind by contributing directly or indirectly in a way of development.

Electronics and Communication Engineering (PEO's)

PEO1: To excel in different fields of electronics and communication as well as in multidisciplinary areas. This can lead to a new era in developing a good electronic product.

PEO2: To increase the ability and confidence among the students to solve any problem in their profession by applying mathematical, scientific and engineering methods in a better and efficient way.

PEO3: To provide with a good academic environment to the students which can lead to excellence, and stress upon the importance of teamwork and good leadership qualities, written ethical codes and guide lines for lifelong learning needed for a successful professional career.

PEO4: To provide with a solid foundation to students in all areas like mathematics, science and engineering fundamentals required to solve engineering problems and also to pursue higher studies.

PEO5: To expose the students to the state of art technology so that the student would be in a position to take up any assignment after his graduation.

Electronics and Communication Engineering (PSO's)

PSO1: 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.

PSO2: Competence in using electronic modern IT tools (both software and hardware) for the design and analysis of complex electronic systems in furtherance to research activities.

PSO3: Excellent adaptability to changing work environment, good interpersonal skills as a leader in a team in appreciation of professional ethics and societal responsibilities.

Civil Engineering (PO's)

Engineering programmes offered by MRITS demonstrate that their students attain the following outcomes:

1. An ability to apply knowledge of computing, mathematics, science and engineering fundamentals appropriate to the Civil Engineering discipline.
2. An ability to analyze a problem, identify and formulate the requirements appropriate to its solution.
3. An ability to design, implement a process to meet desired needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations.
4. An ability to design and conduct experiments, as well as to analyze and interpret data.
5. An ability to use current techniques, skills, and modern tools necessary for civil engineering practice.
6. An ability to analyze the local and global impact of civil engineering on individuals, organizations and society.
7. Knowledge of contemporary issues.
8. h) An understanding of professional, ethical, legal, security and social issues and responsibilities.
9. An ability to function effectively, individually and on teams, including diverse and multi disciplinary area, to accomplish a common goal.
10. An ability to communicate effectively with a range of audience.
11. Recognition of the need for and an ability to engage in continuing professional development.
12. An 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.

Civil Engineering (PEO's)

PEO1: Excel in professional career and/or higher education by acquiring knowledge in mathematical, civil and other engineering principles.

PEO2: Analyze real life problems, design and implement appropriate civil engineering solutions that are technically sound, economically feasible and socially acceptable.

PEO3: Exhibit professionalism, ethical attitude, communication skills in their profession and adapt to current trends by engaging in lifelong learning.

PEO4: To provide student with a good academic environment which can lead to excellence, and stress upon the importance of team work and good leadership qualities.