



Civil Engineering

Program Educational Objectives

1. Graduates will be prepared with strong engineering fundamentals leading to excellent performance in professional career in planning, designing, construction, operation & maintenance of the built environment and global infrastructure that meet the societal needs.
2. Graduates will exhibit strong technical ability to create & synthesize data using relevant tools and concepts, for providing sustainable solutions to civil engineering problems and projects.
3. Graduates will exhibit excellent interpersonal communication and resource management skills as leaders in the civil engineering profession while working as a part of multidisciplinary team.
4. Graduates will be prepared with sound foundation in mathematics, science and in Civil Engineering to prepare them for higher studies and research.
5. Graduates will possess a breadth of knowledge and engage themselves in the life-long learning to meet challenges of globalization.
6. Graduates will have a sense of responsibility, respect towards society & its heritage and will follow the professional ethics.

Program Outcomes

1. Students will demonstrate the basic knowledge of mathematics, science and engineering.
2. Students will demonstrate ability to design and conduct experiments, interpret & analyse data and report results.
3. Students will demonstrate an ability to design a system, component, or a process that meets desired specifications within realistic constraints.
4. Students will demonstrate an ability to function in multidisciplinary team.
5. Students will demonstrate the ability to identify, formulate and solve civil engineering problems.
6. Students will demonstrate the understanding of their professional responsibilities ethically.
7. Students will be able to communicate effectively to all concerned.
8. Students will have the confidence to apply engineering solutions in global and social context.
9. Students will recognize the need for and an ability to engage in life-long learning.
10. Students will have broad education for understanding the impact of engineering solutions in a global, economic, environmental, and societal context.
11. Students will possess an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.



Computer Science & Engineering

Program Educational Objectives

1. To make students competent for professional career in Computers, IT & allied fields.
2. To build strong fundamental knowledge amongst student to pursue higher education and continue professional development in Computers, IT & other fields
3. To imbibe professional ethics, develop team spirit and effective communication skills to be successful leaders and managers with a holistic approach.
4. To nurture students to be sensitive to ethical, societal & environmental issues while conducting their professional work.

Program Outcomes

Engineering Graduate will be able to -

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.



Mechanical Engineering

Program Educational Objectives

1. To make students competent for professional career in Mechanical & allied fields.
2. To build strong fundamental knowledge amongst student to pursue higher education and continue professional development in Mechanical & other fields
3. To imbibe professional ethics, develop team spirit and effective communication skills to be successful leaders and managers with a holistic approach.
4. To nurture students to be sensitive to ethical, societal & environmental issues while conducting their professional work.

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.



Electronics & Telecommunication Engineering

Program Educational Objectives

- 1 To prepare students to give good theoretical background with sound practical knowledge, enable them to analyze and solve Electronics and communication Engineering problems by applying basic principles of mathematics, science, and engineering and using modern tools and techniques.
- 2 To make students to test hardware components and software for offering solution to real life situations.
- 3 To inculcate students to be sensitive to ethical, societal and environmental issues while pursuing their professional duties.
- 4 To build strong fundamental knowledge amongst students to pursue higher education, and to enhance research and continue professional development in Electronics, communication and IT industries with attitude for lifelong learning.
- 5 To nurture students with technical and communication skills in order to be able to function on multi disciplinary fields and make them aware of contemporary issues at national and international levels.
- 6 To develop students for team working and managerial skills leading to entrepreneurship and leadership.

Program Outcomes

1. an ability to apply knowledge of mathematics, science, and engineering,
2. an ability to design and conduct experiments, as well as to analyze and interpret data,
3. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability,
4. an ability to function on multidisciplinary teams,
5. an ability to identify, formulate, and solve engineering problems,
6. an understanding of professional and ethical responsibility,
7. an ability to communicate effectively
8. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context,
9. a recognition of the need for, and an ability to engage in life-long learning,
10. a knowledge of contemporary issues, and
11. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.