

Program Outcome

School of Technology

B.Tech. (Electrical Engg.)

1. Enable graduates to obtain the knowledge and skills necessary for immediate employment and continued advancement in the field of Electrical Engineering.
2. Students will possess a strong technical background as well as analytical, critical-thinking, and problem-solving skills that enable them to excel as professionals contributing to a variety of Engineering roles within the various fields of Electrical Engineering and the high-tech industry.
3. To understand the impact of Engineering solutions in a global, economic, environmental, and societal context.
4. To get knowledge of Design, analysis, operation, control, protection, and simulation of electrical power systems (Generation, Transmission, Distribution & Utilization).
5. Knowledge of principles of operation, design, performance and testing of static and rotating machines and power electronics based electric drives.
6. An ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.
7. Students will committed to professional development and lifelong learning by engaging in professional or graduate education in order to stay current in their field and achieve continued professional growth.

B.Tech. (Mechanical Engg.)

1. **Engineering knowledge:** An ability to apply knowledge of mathematics, science, and engineering in solving/analyzing problems in industries, research and development institutions, public sector units, higher education and in academia.
2. **Problem Analysis:** An ability to design and conduct experiments, as well as to analyze and interpret data in mechanical engineering theory and practice at various industrial work-places.
3. **Design/ Development of solutions:** An ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, health and safety, manufacturability, and sustainability.
4. **Multidisciplinary Approach:** An ability to function on multidisciplinary teams.
5. **Modern tool usage:** An ability to identify, formulate, and solve engineering problems using modern tools and techniques.
6. **Communication:** An ability to communicate effectively.
7. **The Engineer and Society:** The broad education necessary to understand the impact of mechanical engineering solutions in a local, global, economic, environmental, and societal context.
8. **Life-long learning:** A recognition of the need for, and an ability to engage in life-long learning.
9. **Investigations of complex problem:** Use of Applied research including design of experiments, analysis and interpretation of data, synthesis of the information to provide valid solutions with the knowledge of contemporary issues.
10. **Project Management:** An ability to apply engineering knowledge and management principles skills to manage engineering projects.

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11. **Environment and Sustainability:** An ability to design sub-systems, systems, components and processes to fulfil demand of environmental sustainability.
12. **Ethics:** Apply engineering principles toward the professional values and ethics.

B.Tech. (Civil Engg.)

1. The graduates will be able 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.
2. The graduates will come to know the application of modern tools such as different computer software, modern instrumentation for understanding the limitations of engineering activities and also for the modeling and design of engineering systems.
3. The graduates will be able to understand the professional and ethical responsibility. The graduates will come to know recognition of need for, and an ability to engage in, life-long learning.
4. The graduates will be able to make effective communication in oral, written, graphical forms with confidence.
5. Students will committed to professional development and lifelong learning by engaging in professional or graduate education in order to stay current in their field and achieve continued professional growth.

B.Tech. (Chemical Engg.)

1. The ability to identify, formulate and solve Chemical Engg. problems
2. Work collaboratively in multidisciplinary teams to tackle complex multifaceted problems that may require different approaches and viewpoints to arrive at a successful solution.
3. Pursue careers in chemical engineering and related fields as demonstrated by professional success at positions within industry, government, or academia.
4. 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.
5. An ability to design systems, components, or processes to meet desired needs within realistic constraints (such as economic, environmental, social, political, ethical, health, safety, and sustainability)

B.Tech. (Information & Communication Technology)

1. Be able to apply, model, analyse and solve the engineering problems using knowledge of Science, Technology, Engineering and Mathematics.
2. Be able to design solutions, products and systems to meet specified needs of society and industry.
3. Be aware **of and be able to use state-of-the-art tools, standards and technology.**
4. **Be able to appreciate and span** multidisciplinary domains.
5. An ability to design systems, components, or processes to meet desired needs within

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realistic constraints (such as economic, environmental, social, political, ethical, health, safety, and sustainability)

B.Tech. (Computer Engg.)

1. Successfully practice computer engineering to serve state and regional industries, government agencies, or national and international industries.
2. Work professionally in one or more of the following areas: computer hardware and software design, embedded systems, computer networks and security, system integration, and electronic design automation.
3. Achieve personal and professional success with awareness and commitment to their ethical and social responsibilities, both as individuals and in team environments.
4. Maintain and improve their technical competence through lifelong learning, including entering and succeeding in an advanced degree program in a field such as engineering, science, or business.
5. 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.

M.Tech. (Mechanical Engg.(Thermal))

1. To apply the concepts of material science and engineering, computer aided engineering, thermal engineering and manufacturing technologies for design, development, analysis and maintenance of mechanical systems and processes.
2. An ability to design systems, components, or processes to meet desired needs within realistic constraints (such as economic, environmental, social, political, ethical, health, safety, and sustainability)
3. 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.

M.Tech. (Electrical Engg. (Power system))

1. Demonstrate dexterity in the domains of Electrical Engineering viz. network analysis, control systems, electrical machines, electronics and electrical power systems.
2. Understand specifications and requirements, apply laws, analyze, simulate circuits, interpret results and design appropriate solutions in various areas of electrical engineering with evident validation.
3. 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.

M.Tech. (Civil Engg. (Infrastructure Engg. & Management))

1. Apply principles of Civil Engineering to propose application-centric Solutions utilizing modern tools and techniques
2. Plan, Design and Construct Sustainable Infrastructure satisfying Economic, Environmental, Social, Ethical and Safety Constraints

Program Outcome

3. Communicate effectively with Stakeholders and add values to multi-disciplinary domains in addition to Civil Engineering.
4. Maintain and improve their technical competence through lifelong learning, including entering and succeeding in an advanced degree program in a field such as engineering, science, or business.

M.Tech. (Environmental Engg.)

1. To understand the impact of engineering solutions in a global, economic, environmental, and societal context.
2. To train the students on developing practical, efficient and cost effective solutions on problems and challenges on environmental sciences and engineering.
3. To inculcate among students sensitivity towards social and corporate responsibilities.
4. 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.

M.Tech. (Chemical Engg.)

1. An ability to model, simulate and validate the chemical engineering problems
2. An ability to design or develop chemical processes incorporating impact of economic, environmental, social, health, safety and sustainability
3. An ability to practice or apply chemical engineering principles, communication and other skills in a wide range of industrial and professional employment areas.
4. 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.

M.Tech. (Nuclear Science and Technology)

1. Explore the innovative field of Nuclear Science & Technology.
2. Provide Trained Engineers for construction, operation of the Nuclear reactors and support facilities
3. To train the students on developing practical, efficient and cost effective solutions on problems and challenges Nuclear sciences and engineering.
4. 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.

M.Tech. (Energy Systems (Focused on Solar Energy))

1. To prepare the students for successful career in the energy industry; energy regulation and management agencies; and in the academic and R&D institutions.

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2. To produce graduates strong in energy resources, technologies and management fundamentals, and capable in addressing the present and potential future energy problems.
3. To produce energy professionals, who are sensitive to, and well aware of, the energy issues and concerns, and who can apply their specialized knowledge for the sustainable energy management.
4. 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.