PROGRAM OUTCOMES

a) **Engineering knowledge:** Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the conceptualization of engineering models.

b) **Problem Analysis:** Identify, formulate, research literature and solve complex engineering problems reaching substantiated conclusions using first principles of mathematics and engineering sciences.

c) **Design/development of solutions:** Design solutions for complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

d) **Conduct investigations of complex problems:** Conduct investigations of complex problems including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.

e) **Modern Tool Usage**: Create, select and apply appropriate techniques, resources, and modern engineering tools, including prediction and modeling, to complex engineering activities, with an understanding of the limitations.

f) **The engineer and society**: Function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings.

g) **Environment & sustainability:** 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.

h) **Ethics**: Demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering practice.

i) **Individual and Team work**: Understand and commit to professional ethics and responsibilities and norms of engineering practice.

j) **Communication**: Understand the impact of engineering solutions in a societal context and demonstrate knowledge of and need for sustainable development.

k) **Project Management and Finance:** Demonstrate a knowledge and understanding of management and business practices, such as risk and change management, and understand their limitations.

l) **Lifelong Learning**: Recognize the need for, and have the ability to engage in independent and life-long learning