B.Tech: Agricultural Engineering

Program Educational Objectives (PEOs):

Graduates of the Program will

PEO 1	Develop diverse capability to work with tractor industries, seed processing industries, irrigationcompanies and also to run self entrepreneurship like dairy farming and custom hiring centers.
PEO 2	Solve real time engineering problems using professional knowledge and skills resulting in significant societal development.
PEO 3	Demonstrate multidisciplinary skills to analyze engineering issues in a broader perspective withethical responsibility towards sustainable development.

Program Outcomes (POs):

After successful completion of the program, the graduates will be able to

PO 1	**Engineering Knowledge:** Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
PO 2	**Problem Analysis:** Identify, formulate, research literature, and analyse complex engineering problems, reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3	**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.
PO 4	**Conduct investigations of complex problems:** Conduct investigations of complex problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.
PO 5	**Modern tool usage:** 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.
PO 6	**The Engineer and society:** Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant to professional engineering practice.
PO 7	**Environment and Sustainability:** Understand the impact of professional engineering solutions in societal and environmental contexts and demonstrate knowledge of and need for sustainable development.

PO 8	**Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of engineering practice.
PO 9	**Individual and teamwork:** Function effectively as an individual, and as a member or leader in diverse teams and in multidisciplinary settings.
PO 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.
PO 11	**Project Management and Finance:** Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member and leader in a team and to manage projects in multidisciplinary environments.
PO 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.

Program Specific Outcomes (PSOs):

After successful completion of the program, the graduates will be able to

PSO 1	Develop skills necessary to design the process and evaluate and come out with problem solutions of farm implements through adequate farm power for sustainable agriculture and to gain better employment in various industries of agricultural engineering.
PSO 2	Develop expertise in planning and management of natural resources through advanced soil and water conservation techniques and various irrigation and drainage methods with the skill of data interpretation.
PSO 3	Contribute towards enhancing farmer income & play a dynamic role in the circular economy through technology intervention in promoting sustainable food supply chain & processing of agro-food produce.