

## Batch 2022,2023 PLO

PLO#	Descriptions
PLO-1	<b>Engineering Knowledge</b> An ability to apply knowledge of mathematics, science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems.
PLO-2	<b>Problem Analysis:</b> An ability to identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PLO-3	<b>Design/Development of Solutions:</b> An ability to 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.
PLO-4	<b>Investigation:</b> An ability to investigate complex engineering problems in a methodical way including literature survey, design and conduct of experiments, analysis and interpretation of experimental data, and fusion of information to derive valid conclusions.
PLO-5	<b>Modern Tool Usage:</b> An ability to 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.
PLO-6	<b>The Engineer and Society:</b> An ability to apply reasoning and contextual knowledge to assess societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant to professional engineering practice and solutions to complex engineering problems.
PLO-7	<b>Environment and Sustainability:</b> An ability to understand the impact of professional engineering solutions in societal and environmental contexts and to demonstrate the need for sustainable development.

PLO-8	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of sound engineering practices.
PLO-9	<b>Individual and Teamwork:</b> An ability to work effectively, as an individual or in a team, in multifaceted and /or multidisciplinary settings.
PLO-10	<b>Communication:</b> An ability to communicate effectively, orally as well as in writing, 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.
PLO-11	<b>Project Management:</b> An ability to demonstrate management skills and apply engineering principles to one's work, as a member and/or leader in a team, to manage projects in a multidisciplinary environment.
PLO-12	<b>Lifelong Learning:</b> An ability to recognize the importance of and pursue lifelong learning in the broader context of innovation and technological developments.

### Batch 2024,2025,2026 PLO

PLO#	Descriptions
PLO-1	<b>Engineering Knowledge:</b> Apply knowledge of mathematics, natural sciences, engineering fundamentals, and engineering specialization to the solution of complex engineering problems. <i>(WK-1 to WK-4)</i>
PLO-2	<b>Problem Analysis:</b> Identify, formulate, conduct research literature, and analyze complex engineering problems to reach substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences. <i>(WK-1 to WK-4)</i>
PLO-3	<b>Design/Development of Solutions:</b> 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 factors. <i>(WK-5)</i>
PLO-4	<b>Investigation:</b> Conduct investigations of complex engineering problems using research-based knowledge and methods, including experiment

	design, data analysis and interpretation, and synthesis of information to draw valid conclusions. <i>(WK-8)</i>
PLO-5	<b>Tool Usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling—to complex engineering problems, understanding their limitations. <i>(WK-2 &amp; WK-6)</i>
PLO-6	<b>The Engineer and the World:</b> Analyze and evaluate sustainable development impacts on society, the economy, sustainability, health and safety, legal frameworks, and the environment while solving complex engineering problems. <i>(WK-1, WK-5, &amp; WK-7)</i>
PLO-7	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and norms of engineering practice, adhering to relevant national and international laws. Demonstrate understanding of diversity and inclusion. <i>(WK-9)</i>
PLO-8	<b>Individual and Collaborative Team Work:</b> Function effectively as an individual, and as a member or leader in diverse and inclusive teams, in multidisciplinary, face-to-face, remote, and distributed settings. <i>(WK-9)</i>
PLO-9	<b>Communication:</b> Communicate effectively and inclusively on complex engineering activities with the engineering community and society at large comprehending and writing effective reports, design documentation, and presentations considering cultural and language differences. <i>(WK-1 &amp; WK-9)</i>
PLO-10	<b>Project Management and Finance:</b> Demonstrate knowledge and understanding of engineering management principles and economic decision-making; apply these to one's own work as a member or leader in a team to manage projects in multidisciplinary environments. <i>(WK-2 &amp; WK-5)</i>
PLO-11	<b>Lifelong Learning:</b> Recognize the need for and demonstrate the ability for independent and lifelong learning, adaptability to new and emerging technologies, and critical thinking in the context of technological change. <i>(WK-8 &amp; WK-9)</i>