PO Attainment Levels and Actions for improvement for Batch 2024						
POs	Target Level	Attainment Level	Observations			
PO1 Statement: Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.						
PO1	2.00	2.36				
Action 1:	More emphasis will be given to practical applications/case studies/Research					
PO2 Statement: 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.						
PO2	2.00	2.21				
Action 1:	Improvement in analytical problem-solving skills shall be attempted by giving additional tutorial problems to students and introducing new methods of assessment like mini projects /case studies.					
PO3 Statement: 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.						
PO3	2.00	1.68				
Action 1:	Better student mentoring practice and peer programs shall be organized to inculcate the thought of innovation.					
Action 2:	Students shall be encouraged to pursue internships at NITs and IITs to gain exposure to emerging technologies.					
PO4 Statement: 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.						
PO4	2.00	1.82				
Action 1:	Students shall be encouraged to pursue internships at NITs and IITs to gain exposure to emerging technologies.					
Action 2:	Encouraging the students to take up additional tutorial problems of higher order and internships in organizations that deal with complex civil engineering problems					
PO5 Statement: 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.						

PO5	2.00	1.97				
Action 1:	Students will be trained in latest civil engineering related softwares to express their ideas on complex problems in an efficient way.					
Action 2:	Students shall be encouraged to undergo mini projects in the domain of their interest by adopting modern tools.					
PO6 Statem knowledge t responsibilit	<b>PO6</b> Statement: 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.					
PO6	2.00	1.92				
Action 1:	By organizing guest talks and field visit to improve the contextual awareness of social responsibilities associated to engineering practice					
Action 2:	Aligning the civil engineering technology to suit the societal requirements and get familiarized with the standard code of practice					
PO7 Statement: 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.						
PO7	2.00	1.66				
Action 1:	By sensitizing and familiarizing the students on sustainable development goals (SDGs)					
Action 2:	To align students towards achieving sustainability by use of alternate materials					
PO8 Statement: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.						
PO8	2.00	1.80				
Action 1:	By organizing workshop emphasizing ethical practices in engineering and encouraging students to participate.					
Action 2:	By continuously emphasizing on professional ethics and obligations through courses such as universal human values, project work and industrial training					
PO9 Statement: Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings						
PO9	2.00	2.19				

Action 1:	Students shall be encouraged to participate in interdisciplinary and multidisciplinary group projects in order to gain a better understanding of the value of teamwork.					
PO10 Statement: 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						
PO10	2.00	2.18				
Action 1:	Students shall be encouraged to improve their communication skills by presenting their projects and industrial training effectively.					
Action 2:	Students shall be encouraged to improve their communication skills by hosting group discussions during classroom teaching.					
PO11 Statement: 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.						
PO11	2.00	1.12				
Action 1:	Students shall be encouraged to participate in interdisciplinary and multidisciplinary group projects in order to gain a better understanding of engineering and management principles					
Action 2:	Students are encouraged to enroll minor specialization in finance, marketing and management related courses.					
PO12 Statement: 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.						
PO12	2.00	1.91				
Action 1:	A holistic growth of knowledge of the individual shall be ascertained to maintain the zest for lifelong learning.					
Action 2:	Students mentor-mentee scheme allow to enrich the knowledge and keep adopting the learning mindset					
PSO Attainment Levels and Actions for improvement						
PSO1 Statement: Graduates will demonstrate an ability to test the materials and interpret data to develop conventional and alternative engineering solutions						
PSO1	2.00	2.60				
Action 1:	By inculcating the importance of handling the materials, testing them and imposing interest to review the outcomes during and after laboratory practice.					

**PSO2** Statement: Graduates will implement the basic knowledge to acquire specialization in civil engineering streams of structural engineering, geotechnical engineering, transportation engineering, environmental engineering, water resources engineering and construction management & building technology, as well as interdisciplinary areas.

PSO2	2.00	2.08		
Action 1:	During curriculum modification, course structure and content delivery will be developed to incorporate a deeper grasp of basic facilities in civil engineering and other related fields.			