

ACSB05	Data Structures Laboratory	3.00	3.00	3.00	3.00	3.00	3.00		3.00	3.00	3.00		3.00			
AEEB04	Basic Electrical And Electronics Engineering	1.70	1.60											1.70		
AEEB08	Basic Electrical And Electronics Engineering Laboratory	3.00							3.00	3.00	3.00		3.00			
ACEB05	Engineering Geology	2.40		2.30	2.80			2.50						1.90	2.80	
ACEB06	Fluid Mechanics	2.20	2.10	2.20	2.00						2.30			2.00	2.90	
ACEB07	Strength Of Materials	2.00	2.30										0.40	2.30	0.40	
ACEB08	Materials, Testing And Evaluation	2.60	2.30	2.90	2.50	2.70								2.60	2.60	
ACEB09	Engineering Geology Laboratory	3.00	3.00		3.00											
ACEB10	Fluid Mechanics Laboratory	3.00		3.00	3.00			3.00						3.00		3.00
ACEB11	Strength of Materials Laboratory	3.00	3.00			3.00									3.00	
AHSB12	Probability And Statistics	2.00	2.30		2.20											
AHSB14	Business Economics And Financial Analysis	1.40	1.40						1.50	1.50		1.30				
ACEB22	Environmental Engineering	2.60	2.60	2.60	2.50									2.50	2.60	
ACEB18	Hydrology and Water Resources Engineering	1.90	1.20	1.20	2.30			2.10						1.20	1.20	
ACSB38	Programming For Problem Solving Using Python	1.90	1.90	1.90	1.80	1.90										
ACEB12	Mechanics of Material	1.90	2.00		2.20									1.80		
ACEB13	Structural Engineering	1.40	1.50	1.50									0.90	1.60		
ACEB14	Hydraulic Engineering	1.70	1.60		1.50						1.80			1.90		
ACEB26	Concrete Technology	1.40	2.00	1.80		1.30		1.30						1.70	1.40	
AMEB54	Mechanical Properties Of Materials	1.70		2.30		2.30		1.70			2.30		2.30			
AHSB15	Project Based Learning (Prototype / Design Building)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
ACEB15	Hydraulic Engineering Laboratory	3.00	3.00	3.00		3.00										3.00
ACEB16	Concrete Technology Laboratory	3.00		3.00		3.00		3.00						3.00		
ACEB17	Engineering Economics, Estimation And Costing	2.30	2.40			2.00	2.00						2.30	2.00		2.30
ACEB19	Geotechnical Engineering	1.20	1.20	1.20	1.20	1.20								1.20	1.20	

ACEB30	Design of Steel Structures And Drawing	2.20	2.00	2.00	2.00									2.10		
ACEB34	Design of Concrete Structures - I	2.70	2.70	2.70		2.70						2.70		2.70		
ACSB34	Relational Database Management Systems	1.80	1.80	1.80	2.30						1.80		1.80			
AHSB16	Research Based Learning (Fabrication / Model Development)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
ACEB20	Geotechnical Engineering Laboratory	3.00	3.00	3.00	3.00		3.00							3.00	3.00	
ACEB21	Reinforced Concrete Structures Drawing Laboratory	3.00	3.00	3.00	3.00	3.00								3.00	3.00	
ACEB23	Transportation Engineering	2.50		2.50	2.30	2.50								2.80	2.40	
ACEB38	Foundation Engineering	1.10	0.90	0.90	1.10	1.20								1.10		
ACEB42	Design Of Concrete Structures - II		2.50	2.00	1.70									2.00		
AHSB21	Global Warming And Climate Change	2.70	2.60				2.90	2.70					2.60		2.90	
ACEB24	Environmental Engineering Laboratory	3.00		3.00			3.00	3.00							3.00	
ACEB25	Transportation Engineering Laboratory	3.00	3.00			3.00				3.00				3.00		
ACEB54	Project Work - (Phase - I)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
ACEB46	Prestressed Concrete Structures	2.20	2.30	2.10	2.10									2.20		
AEEB56	Non Conventional Energy Sources	2.40	2.30	2.00				2.10								
ACEB55	Project Work - (Phase - II)	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
Direct Attainment Value		2.4	2.4	2.4	2.4	2.6	2.9	2.6	2.8	2.9	2.6	2.7	2.4	2.4	2.5	2.8

Overall Attainment

S No.	Assessment Component(Direct + Indirect)	Program Outcomes												PSOs		
		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1.	Direct Assessment (CIA + SEE + Course End Survey) (a)	2.4	2.4	2.4	2.4	2.6	2.9	2.6	2.8	2.9	2.6	2.7	2.4	2.4	2.5	2.8
2.	Student Program exit surveys (b)	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.4	2.3	2.3	2.3	2.3	2.3	2.3
3.	Employer surveys (c)	2.1	2.2	2.1	2.1	2.1	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.1	2.1	2.1
4.	Alumni Survey (d)	2.4	2.4	2.6	2.4	2.4	2.5	2.4	2.4	2.5	2.3	2.4	2.5	2.4	2.4	2.6
Overall attainment = a*0.8 + b*0.1 + c*0.05 + d*0.05		2.4	2.4	2.4	2.4	2.5	2.8	2.5	2.7	2.8	2.5	2.6	2.4	2.4	2.5	2.7

Action taken to improve the attainment of POs and PSOs:

POs	Target Level	Attainment Level	Observations
PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO1	1.8	2.40	Target Achieved. Following courses were identified which didn't meet the attainment target AHSB02, AMEB03, AEEB04, AHSB14, ACEB13, ACEB14, ACEB19, ACEB26, AMEB54, ACEB38.
Action:			
<ol style="list-style-type: none"> 1. Extra special lectures will be arranged for Geotechnical Engineering, Foundation Engineering and Structural Engineering for the students to reinforce their knowledge on the fundamentals of the subjects.. 2. Tutorial classes will be conducted for Engineering Mechanics and Hydraulic Engineering to improve logical thinking. 			
PO 2: Problem Analysis: Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.			
PO 2	1.8	2.40	Target Achieved. Following courses were identified which didn't meet the attainment target AHSB02, AEEB04, AHSB14, ACEB18, ACEB13, ACEB14, ACEB19, ACEB38.
Action:			
<ol style="list-style-type: none"> 1. Special classes will be conducted to improve problem solving ability for Structural Engineering, Hydrology and Water resources Engineering and Foundation Engineering 2. In Hydraulic Engineering and Geotechnical Engineering, the slow learners are identified and additional classes will be conducted. 			
PO3: 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.			
PO 3	1.8	2.40	Target Achieved. Following courses were identified which didn't meet the attainment target ACEB18, ACEB13, ACEB19, ACEB38.

Action:

1. Interactive-sessions were organized to students with experts to improve skills in current and upcoming technologies.
2. Societal and environmental design problems were given as self-study to students in Foundation Engineering and Structural Engineering.
3. Students are emphasized to include design components while carrying out major and minor project work during their final year so that the learnt design principles are being adopted in concurrence to the Indian Standard code specifications.

PO 4: 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.

PO 4	1.8	2.40	Target Achieved. Following courses were identified which didn't meet the attainment target AMEB03, ACEB14, ACEB19, ACEB38, ACEB42.
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Action:

1. Students will be encouraged to tackle assignment problems on their own in most analytical and design related disciplines.
2. Research based Courses will be included, syllabi to be updated to include and inculcate the analysis, research skills.

PO5: 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 5	1.8	2.50	Target Achieved. Following courses were identified which didn't meet the attainment target ACEB26, ACEB19, ACEB38.
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Action:

1. Students were motivated to use latest software like Autodesk, Staad.Pro, ETABS and ANSYS for modelling and designing of structures.
2. Value added courses will be conducted on drafting tools and designing of structures.

PO 6: 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.

PO 6	1.8	2.80	Target Achieved. All the courses meet the attainment target.
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Action:

1. Essence of Indian traditional knowledge is being introduced in UG20 curriculum to have an exposure to the contextual knowledge of the society and cultural issues and its consequent responsibility on professional engineers.
2. The students are encouraged to participate in technical contests, orientation programs, seminars by developing innovative solutions to address the basic needs of society.

PO 7: 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.			
PO 7	1.8	2.50	Target Achieved. Following courses were identified which didn't meet the attainment target ACEB26, AMEB54.
Action:			
<ol style="list-style-type: none"> 1. Students will be encouraged to undertake projects which highlights environmental and sustainability issues. 2. Environmental and Societal related courses like Green building technologies, disaster management and Industrial management will be offered as Professional and Open elective courses. 			
PO 8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
PO 8	1.8	2.70	Target Achieved. Following courses were identified which didn't meet the attainment target AHSB14.
Action:			
<ol style="list-style-type: none"> 1. Motivational talks by professional engineers, successful entrepreneurs and other corporate lectures are arranged to assimilate professional ethics in the civil engineering field. 2. Students were advised to have their major project and internship papers checked for plagiarism to maintain proper professional ethics practice. 			
PO 9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.			
PO 9	1.8	2.80	Target Achieved. Following courses were identified which didn't meet the attainment target AHSB14.
Action:			
<ol style="list-style-type: none"> 1. The students are encouraged to undertake major and minor project works as a team of students, which provides a platform to work as a group and helps the students to groom the skills of leadership to lead an effective team. 2. Students are also encouraged to participate in various co-curricular and extra-curricular activities. 3. Student chapter activities will be organized to demonstrate their individual and teamwork. 			

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 10	1.8	2.50	Target Achieved. All the courses meet the attainment target.
Action:			
<ol style="list-style-type: none"> 1. Students were motivated to participate in various club activities where they will learn to function effectively both as individuals and as team members in a group. 2. Students were encouraged to participate in class room presentations and national/international conferences/seminars/symposia. 			
PO 11: 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.			
PO 11	1.8	2.60	Target Achieved. Following courses were identified which didn't meet the attainment target AHSB14.
Action:			
<ol style="list-style-type: none"> 1. Courses like Construction Engineering and management and Project Planning laboratory will be introduced in UG20 curriculum to get awareness on the management principles. 2. Students are encouraged to participate in a full semester internship programme in various organizations to work on industry-related projects. 			
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.			
PO 12	1.8	2.40	Target Achieved. Following courses were identified which didn't meet the attainment target ACEB07, ACEB12.
Action:			
<ol style="list-style-type: none"> 1. Alumni and Industrial expert talks are frequently organized to know the technical advancement for their future learning in Civil Engineering field. 2. Highly motivated students are encouraged to pursue higher studies on specialized areas of civil engineering in premier institutions. 			

PSO 1 Design and Supervise Sub-Structures and Super Structures for Residential and Public Buildings, Industrial Structures, Irrigation Structures, Power Houses, Highways, Railways, Airways, Docs and Harbors.

PSO 1	1.8	2.40	Target Achieved. Following courses were identified which didn't meet the attainment target AEEB04, ACEB18, ACEB13, ACEB26, ACEB19, ACEB38.
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Action:

1. To further improve the target level, special attention will be given to the weak students and extra classes will be taken and students are motivated to attend technical workshops/seminars to improve their domain knowledge.
2. Students are encouraged to explore real-world challenges as part of their project work so that they can create, analyse, and identify solutions that expose them to modern technology.

PSO 2: Focus on Improving Performance of Structures with reference to Safety, Serviceability and Sustainable Green Building Technology.

PSO 2	1.8	2.50	Target Achieved. Following courses were identified which didn't meet the attainment target ACEB07, ACEB18, ACEB19, ACEB26.
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Action:

1. Students are encouraged to participate in field and Industrial visits to gain knowledge in terms of structural performance and safety standards.
2. Green building technologies, disaster management and Industrial management will be offered as professional and open elective courses for the better understanding of Civil Engineering discipline.

PSO 3: Make use of Advanced Structural Analysis and Project Management Software for creating Modern Avenues to succeed as an Entrepreneur, Pursue Higher Studies and Career Paths.

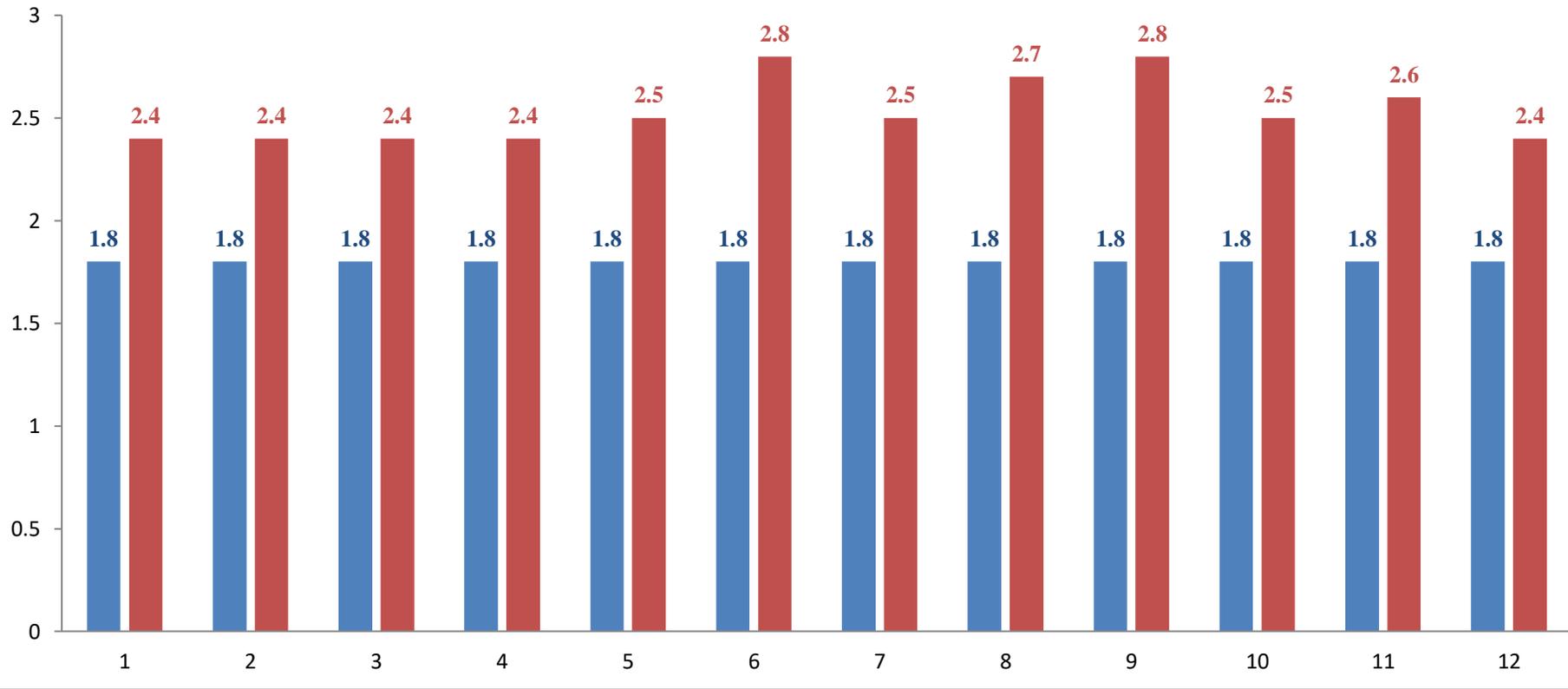
PSO 3	1.8	2.70	Target Achieved. All the courses meet the attainment target.
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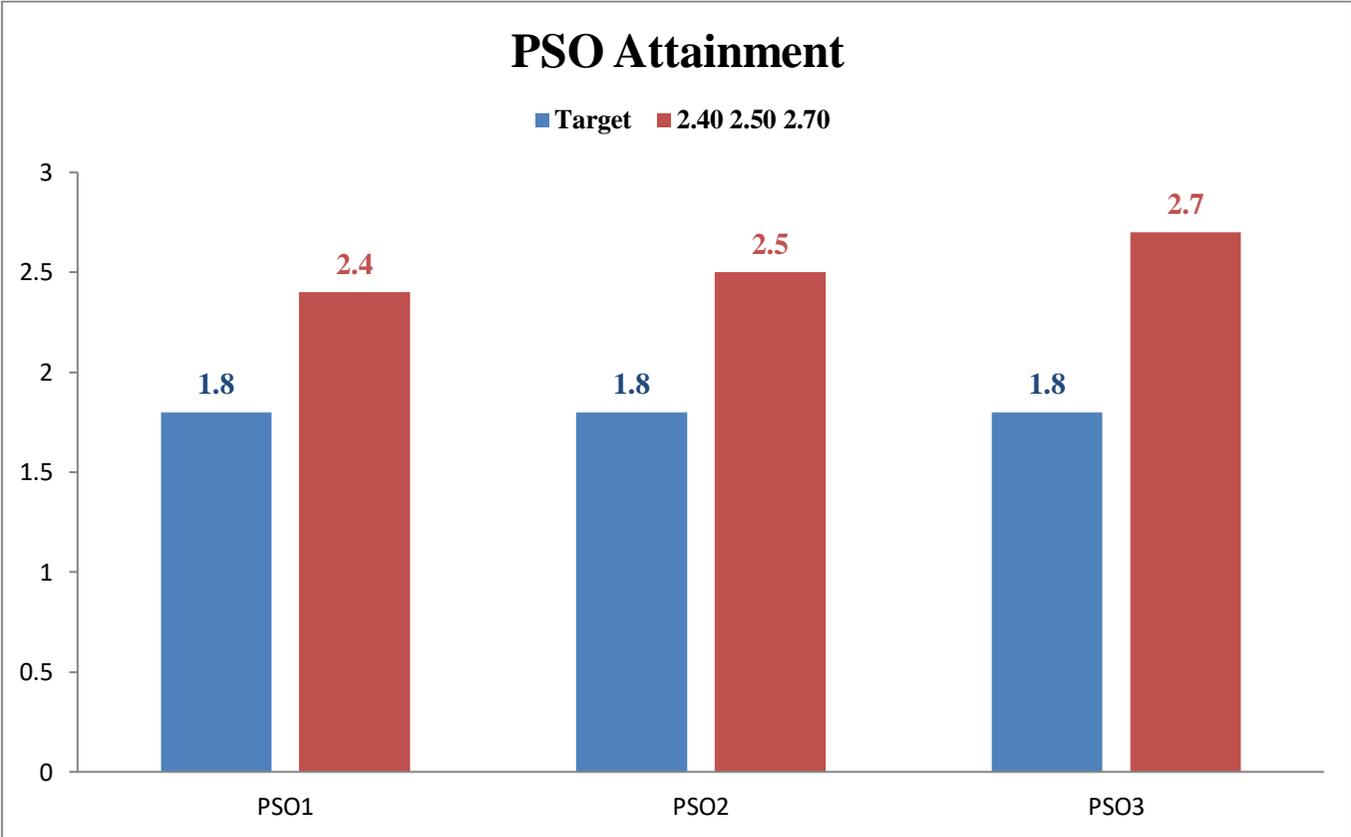
Action:

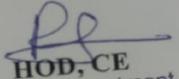
1. Workshops and short-term training programs will be organized to have exposure to modern engineering tools such as Autodesk, STAAD Pro, ETABS, Primavera, and other civil engineering software packages to handling and applying modern engineering tools and software.
2. Students are motivated to become successful entrepreneurs and pursue higher education in Civil Engineering specialization at prestigious Institutions.

PO Attainment

■ Series 1 ■ Series 2






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