

2.3.1: Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

We at SIESGST, conduct various student centric activities to improve the quality of teaching-learning. The activities that are conducted under experiential learning, participative learning and problem-solving methodologies are shown in figure 1.

Experiential learning: Experiential learning is the process of learning through experience by doing and reflecting. We encourage students to practice various technical and non-technical skills through project development, student seminars, student development programs, workshops, internships and industrial visits. These activities are planned, conducted and monitored regularly by the faculty to ensure that students are practicing the required skills, reflecting on their experiences and improving their skills.

Participative learning: We always strive to enhance the learning experience of learners in class through various interactive and participatory approaches apart from traditional teaching. These approaches aid in creating a feeling of responsibility in learners and makes learning a process of construction of knowledge. Various approaches used are- Think-Pair-Share (TPS), Flipped Classroom, Peer Instruction (PI), Group Discussion, etc.

Year	Class/Sem	Subject	Student-centric Activity	Brief explanation about the activity	Impact analysis
2019-20	SECE, IV	COA	Collaborative Learning	Students were asked to Design 1-bit ALU using basic components of logic design and simulate the same	Students could design the ALU and perform well in groups
2019-20	SECE, III	DLDA	Collaborative Learning	Students were asked to design combinational logic circuit based on problem on issuing insurance policy	Students could find the best solution to the problem by collaborating with each other in a group
2019-20	TECE, V	MP	Animated Concept Map	Animated concept map prepared to give overview of the chapter	Students could easily link the wide topics

Problem based learning: Students are given exposure to various problem-solving methodologies by solving real-world problems, design problems, and case studies. The problems posed are open problems like “design a system to check the quality of air”. Such problems have unstated goals and constraints and have multiple correct solutions. Such problem-solving activity enables students to not only apply concepts learned but also aid in developing skills related to formulate problems and subproblems, generate alternative solutions, identify constraints and analyse and select solutions.

Year	Subject/Class	Problem based learning
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2018-19	DWM, TECE	<p>Consider the following business scenario. A telecom company plans to maintain a CRM data warehouse. There are 10 million customers of the company. Besides the usual attributes, the company wants to maintain additional demographic information like literacy percentage, male/female ratio, average life expectancy and average income of the people belonging to the state to which each customer belongs. The company also wants to maintain information about the age group, income level and marital status of its customers. They also need to run queries like the number of married and unmarried customers they have at any point in time.</p> <p>a. Design an efficient data warehouse schema that satisfies the above business scenario. Clearly identify the fact table(s), dimension table(s), primary key(s) and foreign key(s).</p> <p>b. Write an SQL statement that generates the number of married and unmarried customers that the company has today.</p>
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