

**Course Outcomes & CO-PO-PSO Mapping and Justification**

Subject	<b>ANALOG &amp; DIGITAL ELECTRONICS Lab</b>	<b>18CSL37</b>
<b>COURSE OUTCOMES:</b>		
CO No.	On completion of this course, students will be able to:	Cognitive Level
18CSL37.1	Design and demonstrate various combinational logic circuits.	L6
18CSL37.2	Design and demonstrate various types of counters and Registers using Flip-flops.	L6
18CSL37.3	Design Analog and Digital Circuits using Simulation package.	L6
18CSL37.4	Design Multivibrator, Relaxation Oscillator, Window comparator circuits.	L6

**CO-PO-PSO MAPPING**

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
18CSL37.1	3	2	3	-	-	-	-	-	-	-	-	2	-	-	2
18CSL37.2	3	2	3	-	-	-	-	-	-	-	-	2	-	-	2
18CSL37.3	3	2	3	-	2	-	-	-	-	-	-	2	-	-	2
18CSL37.4	1	2	1	-	-	-	-	-	-	-	-	2	-	-	2
<b>Avg. Mapping</b>	<b>2.5</b>	<b>2.0</b>	<b>2.5</b>	<b>-</b>	<b>2.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.0</b>	<b>-</b>	<b>-</b>	<b>2.0</b>

**CO-PO-PSO JUSTIFICATION**

CO No.	PO/PSO	CL	Justification
18CSL37.1	PO1	3	Understand the concept of combinational logic circuits.
	PO2	2	Analyze the combinational logic circuits using truth table and K Map.

	PO3	3	Design the combinational logic circuits using IC's .
	PO12	2	Apply the knowledge of combinational logic circuits designHardware Circuits.
	PSO3	2	Understand the knowledge of combinational logic circuits and able to implement in real world.
18CSL37.2	PO1	3	Understand the concept of Registers ,Counters and Filpflop.
	PO2	2	Analyze the Registers ,Counters and Filpflop using truth table and K Map.
	PO3	3	Design the Registers ,Counters and Filpflop using IC's .
	PO12	2	Apply the knowledge of Registers ,Counters and Filpflop for design Hardware Circuits.
	PSO3	2	Understand the knowledge of Registers ,Counters and Filpflop and able to implement in real world.
18CSL37.3	PO1	3	Understand the concept of Multivibrator, Oscillator, Flipoflop and counters for Simulating the Circuits
	PO2	2	Analyze the Multivibrator,Oscillator, Flipoflop and counters for Simulating the Circuits using truth table and K Map.
	PO3	3	Design the Multivibrator,Oscillator, Flipoflop and counters for Simulating the Circuits
	PO5	2	Using the Pspice tool for analog circuits and Simulink for digital circuits.
	PO12	2	Apply the knowledge of Multivibrator,Oscillator, Flipoflop and counters for Simulating the Circuits.
	PSO3	2	Understand the knowledge of Multivibrator,Oscillator, Flipoflop for Simulating the Circuits and able to implement in real world.
18CSL37.4	PO1	1	Understand the concept of Multivibrator, Relaxation Oscillator, Window comparator circuits.
	PO2	2	Analyze the Multivibrator, Relaxation Oscillator, Window comparator circuits using CRO.
	PO3	1	Design the Multivibrator, Relaxation Oscillator, Window comparator circuits using IC's .
	PO12	2	Apply the knowledge of Multivibrator, Relaxation Oscillator, Window comparator circuits for design Hardware Circuits.
	PSO3	2	Understand the knowledge of Multivibrator, Relaxation Oscillator, Window comparator circuits and able to implement in real world.

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