



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

<b>Subject</b>	<b>MICROPROCESSOR AND MICROCONTROLLER LAB</b>	<b>15CSL48</b>
<b>COURSE OUTCOMES:</b>		
<b>CO No.</b>	<b>On completion of this course, students will be able to:</b>	<b>Cognitive Level</b>
15CSL48.1	Explain 80x86 instruction set and gain the knowledge how assembly language works.	L2
15CSL48.2	Design and develop assembly programs using 80x86 assembly language instructions.	L3
15CSL48.3	Analyze the functioning of hardware devices and interfacing them into x86 family	L4
15CSL48.4	Develop and implement the program written in ARM7 assembly language .	L3

**CO-PO-PSO MAPPING**

CO No.	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
15CSL48.1	1	1	1	-	-	-	-	-	-	-	-	2	-	-	2
15CSL48.2	2	1	1	-	-	-	-	-	-	-	-	2	-	-	2
15CSL48.3	2	2	2	-	-	-	-	-	-	-	-	2	-	-	2
15CSL48.4	2	1	1	-	-	-	-	-	-	-	-	2	-	-	2
<b>Avg. Mapping</b>	<b>1.8</b>	<b>1.3</b>	<b>1.3</b>	-	-	-	-	-	-	-	-	<b>2.0</b>	-	-	<b>2.0</b>

**CO-PO-PSO JUSTIFICATION**

CO No.	PO/PSO	CL	Justification
15CSL48.1	PO1	1	Understand the fundamentals 8086 instruction set and apply the same to solve engineering problem.
	PO2	1	Identify the existing instructions in 8086 instruction set and able to solve the problem.
	PO3	1	Able to design variety of solution to solve problem using 8086 assembly code

	PO12	2	Apply the knowledge of 8086 instruction set to design a better solution.
	PSO3	2	Understand the 8086 instructions and able write a program at low level
15CSL48.2	PO1	2	Able to apply the fundamentals of 8086 instruction set to solve a problem related 8086 assembly code.
	PO2	1	Identify the existing instructions in 8086 instruction set to write assembly code.
	PO3	1	Able to design variety of solution to solve problem using 8086 assembly code
	PO12	2	Apply the knowledge of 8086 instruction set to design a better solution
	PSO3	2	Able to write a program for variety of problems using 8086 processor instructions
15CSL48.3	PO1	2	Understand the fundamentals interfacing of hardware devices and apply the same to interface the hardware devices.
	PO2	2	Identify the existing interface instructions in 8086 instruction set and use the same to interface the hardware devices.
	PO3	2	Able to design variety of solution to interface the hardware devices to x86 family.
	PO12	2	Apply the knowledge of 8086 instruction set to design a better solution for interfacing hardware devices.
	PSO3	2	Able to write a program to interface hardware devices with 8086 processor
15CSL48.4	PO1	2	Understand the fundamentals ARM7 instruction set and apply the same to solve problem related to embedded systems.
	PO2	1	Identify the existing instructions in ARM7 instructions set to solve the problem related embedded systems.
	PO3	1	Able to design variety of solution to solve problem related embedded systems using ARM assembly code
	PO12	2	Apply the knowledge of ARM instruction set to design better embedded systems
	PSO3	2	Able to write a program for variety of problems using ARM7 processor

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