

Microprocessors and Microcontrollers Laboratory

Course Code	19EE3651	Year	III	Semester	II
Course Category	Professional Core	Branch	EEE	Course Type	Lab
Credits	1.5	L-T-P	0-0-3	Prerequisites	MPMC Basics
Continuous Internal Evaluation:	25	Semester End Evaluation:	50	Total Marks:	75

Course Outcomes	
Upon successful completion of the course, the student will be able to	
CO1	Develop assembly language programs to perform various arithmetic and logical operations with 8086 micro-processors and 8051 micro-controllers.
CO2	Design various interfacing techniques related to real time applications.
CO3	Perform multiprocessor communication.

Contribution of Course Outcomes towards achievement of Program Outcomes & Strength of correlations (H:High, M: Medium, L:Low)														
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	1	3	3								1	
CO2	3	3	3	3	3								3	3
CO3	3	3	1	3	3								2	2

Syllabus		
List of Experiments		
Expt. No.	Contents	Mapped CO
1	Introduction to MASM/TASM.	CO1
2	Arithmetic operations using 8086 Microprocessors – Multi byte addition and subtraction, Multiplication and Division, ASCII – arithmetic operation	CO1
3	Logic operations using 8086 Microprocessors – Shift and rotate – Converting packed BCD to unpacked BCD, BCD to ASCII conversion.	CO1
4	Sorting of numbers using 8086 Microprocessors.	CO1
5	Arithmetic operations using 8051 Microcontrollers.	CO1
6	Checking 5 th bit using 8051 Microcontrollers.	CO1
7	Display string using 8051 Microcontrollers.	CO1
8	Programs using special instructions like swap, bit/byte, set/reset etc. using 8051 Microcontrollers	CO1
9	Reading and Writing on a parallel port.	CO2
10	Traffic light Interface	CO2
11	Stepper Motor Interface	CO2
12	8259 – Interrupt Controller	CO2
13	Keyboard Interface	CO2
14	ADC Interface	CO2
15	Serial communication implementation using 8051 Microcontrollers	CO3

