Course Number and Name
BEC5L6 - MICROPROCESSOR AND MICROCONTROLLER LAB

Credits and Contact Hours
2 and 45

Course Coordinator's Name
Ms S. Philomina

Text Books and References
Lab Manual

Course Description

- Study the Architecture of 8085&8086 microprocessor.
- Learn the design aspects of I/O and Memory Interfacing circuits.
- Study the Architecture of 8051 microcontroller

Prerequisites	Co-requisites
Digital Electronics Lab	Microprocessor and Microcontroller

required, elective, or selected elective (as per Table 5-1)
required

Course Outcomes (COs)

CO1 Design and implement programs on 8085 microprocessor.
CO2 Design and implement programs on 8086 microprocessor.
CO3 Design interfacing circuits with 8085
CO4 Design interfacing circuits with 8086.
CO5 Design and implement 8051 microcontroller based systems
CO6 To Understand the concepts related to I/O and memory interfacing

Student Outcomes (SOs) from Criterion 3 covered by this Course

COs/SOs	a	b	c	d	e	f	g	h	i	j	k
CO1	H			M		L		L	H	L	
CO2	H			M			M				
CO3	M	M	M	H			M		M		
CO4	M	M	M	H				H		M	
CO5	M	H	H		H				H		
CO6			M			M					

List of Topics Covered

1. Programming with 8085 – 8-bit/16-bit addition/subtraction
2. Programming with 8085 – 8-bit/16-bit multiplication/ division using repeated addition/subtraction.
3. Programming with 8085 – 8-bit/16-bit Ascending/Descending order
4. Programming with 8085 – 8-bit/16-bit Largest/smallest number
5. Programming with 8085- code conversion, decimal arithmetic, bit manipulations.
6. Programming with 8085 – matrix multiplication, floating point operations.
7. Programming with 8086 – String manipulation, search, find and replace, copy operations, sorting.
8. Interfacing with 8085/8086 – 8255, 8253.
9. Interfacing with 8085/8086 – 8279, 8251.
10. 8051 Microcontroller based experiments – Simple assembly language programs
11. 8051 Microcontroller based experiments – simple control applications.