Course Type	Course Code	Name of Course		Т	Р	Credit
DP2	CSC205	Computer Organization Lab	0	0	2	2

Course Objective

The objective of the course is to present an understanding of the working of various components of computer systems. **Learning Outcomes**

Upon successful completion of this course, students will:

- Understand the design of combination circuits.
- Understand the design of sequential circuits.
- Know about writing assembly language code.

Unit No.	Topics to be Covered	Lecture Hours	Learning Outcome
1	Realization of basic gates implementation		Understanding the working of digital
1		02	Gates
2	Design of Full/Half adder and subtractor using		Understanding the working of digital
	AND, OR, NOT, XOR gates , 4x1 Multiplexer	04	Gates and adders
	realization on bread board		
3	Realization of basic gates NOT, OR, AND, NOR,	02	Understanding the working of digital
	XOR, XNOR, Full adder/subtractor using NAND		Gates with sub tractors
	Design of 4 hit Incrementor using	02	Understanding the working of multiplayers
4	Design of 4 on incrementor using multiplexers/NAND gates	02	Onderstanding the working of multiplexers
5	To realize 4 bit logical and arithmetic circuits	04	Understanding the working of arithmetic
	separately and then integrating them into a single	01	circuit and ALU
	arithmetic and logical unit (ALU).		
6	Realize Carry Look - ahead adder using	02	Understanding the working of digital gates
	OR/NOT/NAND gates		and carry-look ahead adder
	To realize	02	
7	1) 4-bit carry save adder using full		Understanding the working of adders and
	Adder/ANO/XOR/OR		Flip-Flops
	2) 4-bit shift register using J-K Flip Flop		
8	To implement the Binary Code Decimal (BCD)	02	Understanding the working of BCD adders
	adder.	02	I la denatea din a the concluint of different
9	of given six states using L K flip flop	02	states and K K Elip Elop
10	To design a combinational circuit that squares a 3 bit	02	Understanding the working of
	hinary number using ROM	02	combinational circuits and ROM
11	Assembly Language Programming	02`	Understanding the working of Assembly
	Assembly Language Frogramming	02	Language with programming
12	Mini Project/Project evaluation	02	Zungenge min programming

Text Books:

1. "Computer System Architecture", by M. Morris Mano (PHI)

Reference Books:

"8085 Microprocessor and Its Applications", by A N Kani (TMH)