

KIIT POLYTECHNIC, BHUBANESWAR

LESSON PLAN

Session (2023-2024)

Discipline: ETC/CSE	Semester:4th, summer/2023	Name of the Teaching Faculty: Dr. Upali Aparjaita Dash Assistant Professor E-mail ID udashfet@kp.kiit.ac.in
Subject: Microprocessor and Microcontroller	No. of Days/Week Class Allotted -4	Semester From Date: 16.01.2024 To Date: 26.04.2024 No. of Weeks: 15
Week	Class Day	Theory Topics
1st	1st	Discussion of microprocessor and its application
	2nd	Distinguish between microprocessor and microcomputer
	3rd	Discussion of Architecture of processor and Bus system in processor
	4th	Pin configuration of Intel 8085 microprocessor
2nd	1st	Architecture of Intel 8085 processor
	2nd	Revising the taught portions
	3rd	Doubt clearance
	4th	Pin configuration of Intel 8085 microprocessor
3rd	1st	Architecture of Intel 8085 processor
	2nd	Registers of Intel 8085. Distinguish between SPR and GPR
	3rd	Stack, stack pointer and stack top
	4th	Addressing modes in Intel 8085
4th	1st	Types of instruction
	2nd	Simple programming examples
	3 rd	Basic assembler Directives
	4 th	Programming on logic operations
5 th	1 st	Programming on logic operations
	2 nd	Programming on Delay

	3 rd	Quiz 1
	4 th	Programming on looping, counting , Indexing(JMP and CALL)
6 th	1 st	Compare between two numbers, Array Handling, code conversion
	2 nd	T-state, Fetch cycle, Machine cycle and Instruction cycle
	3 rd	T-state, Fetch cycle, Machine cycle and Instruction cycle
	4 th	Differentiate between Instruction cycle, machine cycle and T state
7 th	1 st	Timing diagram of MOV,DCR,MVI,LDA,DCX
	2 nd	Timing diagram of MOV,DCR,MVI,LDA,DCX
	3 rd	Timing diagram of MOV,DCR,MVI,LDA,DCX
	4 th	Timing diagram of MOV,DCR,MVI,LDA,DCX
8 th	1 st	Revision of Timing diagram Doubt clearance
	2 nd	Pin configuration of Intel 8255 and discussion of interfacing
	3 rd	Memory mapping and IO mapping
	4 th	Memory interfacing with RAM and EPROM
9 th	1 st	8257 DMA controller and 8259 programming interrupt controller
	2 nd	Traffic light controlling, stepper motor control
	3 rd	ADC and DAC interfacing
	4 th	Internal architecture of Intel 8086, maximum and minimum mode
10 th	1 st	Internal architecture of Intel 8086, maximum and minimum mode
	2 nd	Assignment
	3 rd	Checking of assignment
	4 th	Class test
11 th	1 st	Internal ready revision
	2 nd	Pin details of 8086
	3 rd	Pin details of 8086

	4 th	Addressing modes of 8086
12th	1 st	Instruction set of 8086
	2 nd	Instruction set of 8086
	3 rd	Simple programming
	4 th	Quiz -2
13th	1 st	Distinguish between Microprocessor & Microcontroller
	2 nd	8 bit & 16 bit microcontroller
	3 rd	CISC & RISC processor
	4 th	Architecture of 8051 Microcontroller
14th	1 st	Signal Description of 8051 Microcontrollers
	2 nd	Memory Organisation-RAM structure, SFR
	3 rd	Registers, timers, interrupts of 8051 Microcontrollers
	4 th	Addressing modes of 8051
15th	1 st	Simple 8051 Assembly Language Programming Arithmetic & Logic Instructions, JUMP, LOOP, CALL Instructions, I/O Port Programming
	2 nd	Interrupts, Timer & Counters, Serial Communication
	3 rd	Microcontroller interrupts and interfacing with 8255
	4 th	Final revision, previous year questions discussion.