UTKAL INSTITUTE OF ENGINEERING & TECHNOLOGY

DISCIPLINE: ETC	SEMESTER: 4TH Sem	NAME OF THE TEACHING FACULTY: Er.Rehebari Tarannum	
SUBJECT: Th.3 MICROPROCESSOR & MICROCONTROLLE	No of Days/Per week class allotted: 4 Class P/W**(60)**	Semester From Date:16/01/2024 To Date:26/04/2024 No. Of Weeks: **15**	
WEEK	**CLASS DAY**	1.1 Introduction to Microprocessor and Microcomputer & distinguish between them	**REMARKS**
1st	1st	1.1 Introduction to Microprocessor and Microcomputer & distinguish between them	Date / Dean/Prin cipal
	2nd	1.3 General Bus structure Block diagram.	
	3rd	1.1 Data Communication	
	4th	1.4 Basic Architecture of 8085 (8 bit) Microprocessor	
2nd	1st	1.5 Signal Description (Pin diagram) of 8085 Microprocessor	
	2nd	1.6 Register Organizations,Distinguish between SPR & GPR, Timing & Control Module,	
	3rd	1.7 Stack, Stack pointer &Stack top.	
	4th	1.8 Interrupts:-8085 Interrupts, Masking of Interrupt(SIM,RIM)	
3rd	1st	1.3 General Bus structure Block diagram.	
	2nd	1.1 Introduction to Microprocessor and Microcomputer & distinguish between them	
	3rd	Microprocessor and Microcomputer & distinguish between them	
	4th	1.4 Basic Architecture of 8085 (8 bit) Microprocessor	
4th	1st	1.5 Signal Description (Pin diagram) of 8085 Microprocessor	
	2nd	1.6 Register Organizations,Distinguish between SPR & GPR, Timing & Control Module,	

4th	3rd	Doubt Clear Class		
	4th	2.1 Addressing data & Differentiate between one-byte, two-byte &three-byte instructions with examples.		
5th	1st	2.2 Addressing modes in instructions with suitable examples		
	2nd	2.3 Instruction Set of 8085(Data Transfer, Arithmetic, Logical, Branching, Stack& I/O , Machine Control		
	3rd	2.4 Simple Assembly Language Programming of 8085		
	4th	2.4.1 Simple Addition & Subtraction		
6th	1st	2.4.2 Logic Operations (AND, OR, Complement 1's & 2's) & Masking of bits		
	2nd	2.4.3 Counters & Time delay (Single Register, Register Pair, More than Two Register)		
	3rd	2.4.4 Looping, Counting & Indexing (Call/JMP etc).		
	4th	2.4.4 Looping, Counting & Indexing (Call/JMP etc)		
7th	1st	2.4.5 Stack & Subroutine programes		
	2nd	2.4.6 Code conversion, BCD Arithmetic & 16 Bit data Operation, Block Transfer.		
	3rd	2.4.7 Compare between two numbers		
	4th	2.4.8 Array Handling (Largest number & smallest number in the array) 2.5 Memory & I/O Addressing,		
8th	1st	2.4.5 Stack & Subroutine programes		
	2nd	2 Draw timing diagram for memory read, memory write, I/O read, I/O write machine cycle.		
	3rd	3.3 Draw a neat sketch for the timing diagram for 8085 instruction (MOV, MVI, LDA instruction)		
	4th	3.1 Define opcode, operand, T- State, Fetch cycle, Machine Cycle, Instruction cycle & discuss the concept of timing diagram.		
9th	1st	3.2 Draw timing diagram for memory read, memory write, I/O read, I/O write machine cycle.		
	2nd	3.3 Draw a neat sketch for the timing diagram for 8085 instruction (MOV, MVI, LDA instruction).		

9th	3rd	3.3 Draw a neat sketch for the timing diagram for 8085 instruction (MOV, MVI, LDA instruction)		
	4th	3.1 Define opcode, operand, T- State, Fetch cycle, Machine Cycle, Instruction cycle & discuss the concept of timing diagram.		
10th	1st	3.3 Draw a neat sketch for the timing diagram for 8085 instruction (MOV, MVI, LDA instruction)		
	2nd	SAMPLE PAPER QUESTION DISCUSSION		
	3rd	4.1 Concept of interfacing		
	4th	4.2 Define Mapping &Data transfer mechanisms - Memory mapping & I/O Mapping		
11th	1st	4.3 Concept of Memory Interfacing:- Interfacing EPROM & RAM Memories		
	2nd	4.4 Concept of Address decoding for I/O devices		
	3rd	4.5 Programmable Peripheral Interface: 8255		
	4th	4.6 ADC & DAC with Interfacing		
12th	1st	4.7 Interfacing Seven Segment Displays		
	2nd	4.8 Generate square waves on all lines of 8255		
	3rd	4.9 Design Interface a traffic light control system using 8255. 4.10 Design interface for stepper motor control using 8255. 4.11 Basic concept of other Interfacing DMA controller,USART		
	4th	5.1 Register Organisation of 8086		
13th	1st	5.2 Internal architecture of 8086		
	2nd	5.3 Signal Descriptionof 8086		
	3rd	5.4 General Bus Operation& Physical Memory Organisation		
	4th	5.5 MinimumMode&Timings		
	1st	5.6 Maximum Mode&Timings,		

	2nd	5.7 Interrupts and Interrupt Service Routines, Interrupt Cycle, Non-Maskable Interrupt, Maskable Interrupt		
14th	3rd	8 8086 Instruction Set & Programming: Addressing Modes, Instruction Set, Assembler Directives and Operators, 5.9 Simple Assembly language programmingusing 8086 instructions		
	4th	6.1 Distinguish between Microprocessor & Microcontroller 6.2 8 bit & 16 bit microcontroller 6.3 CISC & RISC processor 6.4 Architectureof8051Microcontroll er		
	1st	6.5 Signal Descriptionof8051Microcontrolle rs 6.6 Memory Organisation- RAM structure, SFR 6.7 Registers,timers,interruptsof805		
15th	2nd	6.8 Addressing Modes of 8051 6.9 Simple 8051 Assembly Language ProgrammingArithmetic & Logic Instructions , JUMP, LOOP, CALL Instructions, I/O Port Programming		
	3rd	6.10 Interrupts, Timer & Counters 6.11 Serial Communication		
	4th	6.12 Microcontroller Interrupts and Interfacing to 8255		

HOD **DEAN** **PRINCIPAL**