Lecture Plan:Computer Organization and Architecture

Subject Code: ETCS-204

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3	**1**	**4**

S.NO	Content	Total Lectures
	Topics to be covered	
	First Term	
	Unit-1 (Arithmetic and Register transfer language)	
1	Unsigned notation, Signed notation, Binary coded decimal, floating point numbers	2
2	IEEE 754 floating point standard, Micro-operation	2
3	Bus and Memory transfers, Bus architecture, Bus Arbitration	4
4	Arithmetic logic, Shift micro-operation, Arithmetic Logic Shift Unit	2
	Unit-II (Instruction set architecture & computer organization)	
5	Levels of programming Languages, Assembly language instructions	2
6	8085 Instruction set architecture, Instruction codes Computer Registers	3
7	Computer Instructions, Timing & control, Instruction cycle	3
8	Memory Reference Instructions, Input-Output and Interrupts	2
	Second Term	
	Unit-III (Control Design)	
9	Instruction sequencing and interpretation, Hardwired & micro programmed (control unit)	2

10	Micro-programmed computers, micro-coded CPU: Pentium processor	2
11	Specifying a CPU, Design and implementation of simple CPU,General register organization	3
12	Stack organization, instruction formats, Addressing modes	4
13	Internal architecture of 8085 microprocessor	2
	Unit-IV (Memory &input/output organization)	
14	Memory Technology, Main memory (RAM and ROM chips,Virtual memory, High speed memories	3
15	Asynchronous Data Transfer, Programmed I/O Interrupts	4
16	Direct memory access, Serial communication UARTS RS-232-C &RS-422 Standard	4