KIIT POLYTECHNIC, BHUBANESWAR

LESSON PLAN

Session :: Winter – 2022

Course Type :: Theory

Semester/Branch :: 3rd Semester, Computer Science & Engineering

Subject (with code) :: Computer System Architecture (Th1)

Contact hours/week :: 4 hours

Name of Faculty :: Mr Amalendu Kumar Pradhan

Sl. No	Class ID	Course Content	Mode of Delivery	Exhibit/Reference
1	1	**UNIT-1** Introduction ,Basic Structure of computer hardware	Explanation	Study Material
2	2	Functional Units	Explanation	Study material
3	3	Performance measures	Explanation	Fundamentals Of Computer Architecture By Parthasarthy, Senthil Kumar
4	4	Performance measures contd…	Explanation	Fundamentals Of Computer Architecture By Parthasarthy, Senthil Kumar
5	5	Memory addressing(Endian)	Explanation	Study material
6	6	Bus Structure	Explanation	Study material
7	7	**UNIT-2** Fundamentals to instructions	Explanation	Study material
8	8	Operands-concept and types of operand	Explanation	Study material
9	9	Op codes	Explanation	Study material
10	10	Types of Opcodes	Explanation	Study material
11	11	Instruction format and types.	Explanation	Study material
12	12	Types of Addressing Modes	Explanation	Study material
13	13	**UNIT-3** Introduction to processor system.	Explanation	Study material

14	14	Registers files, Data path design	Explanation	Study material
15	15	Complete instruction execution	Explanation	Study material
16	16	Control unit	Explanation	computer system architecture by moris mano
17	17	Micro programmed control	Explanation	computer system architecture by moris mano
18	18	Hard wired control contd...	Explanation	computer system architecture by moris mano
19	19	**UNIT-4** Memory characteristics	Explanation	Study material
20	20	Semiconductor RAM ,ROM	Explanation	Study material
21	21	Interleaved Memory	**Video Content**	**Youtube link:** https://www.youtube.com/watch?v=u_ZzxkQ2i3Y
22	22	Cache memory	**Video Content**	**Personal Video link** https://www.youtube.com/watch?v=v5MMaXmYwis
23	23	Cache memory mapping	Elaboration	computer system architecture by moris mano
24	24	mapping Contd..	Elaboration	computer system architecture by moris mano
25	25	Memory–processor data transfer	Explanation	Study material
26	26	Virtual memory	Explanation	Study material
27	27	**UNIT-5** Input - Output Interface	Explanation	Study material
28	28	Modes of data transfer	Explanation	fundamentals of computer architecture by parthasarthy
29	29	Programmed I/O	Explanation	fundamentals of computer architecture by parthasarthy
30	30	Interrupt driven I/O	Explanation	fundamentals of computer architecture by parthasarthy
31	32	Handling of interrupt	Explanation	Study material
33	33	I/O channel	Explanation	Study material
34	34	DMA	**Video Content**	**Youtube Link:** https://www.youtube.com/watch?v=9vE4THVpqPM

35	35	I/O processor	Explanation	Study material
36	36	**UNIT-6** Bus	Explanation	Study material
37	37	Types of bus	**Demonstration**	PPT (Self prepared)
38	38	Bus interconnection	**Demonstration**	PPT (Self prepared)
39	39	Basic parameters of Bus design	Explanation	fundamentals of computer architecture by parthasarthy
40	40	Parameters contd..	Explanation	fundamentals of computer architecture by parthasarthy
41	41	Bus structure	Explanation	Study material
42	42	Types of Bus architecture	Explanation	Study material
43	43	PCI SCSI USB	Explanation	Study material
44	44	**UNIT-7** Parallel Processing	Explanation	Study material
45	45	Linear PipeLine	**Video Content**	**Nptel Reference:** https://www.youtube.com/watch?v=R41DfN3NpIM
46	46	Linear PipeLine contd…	Explanation	Study material
47	47	Multiprocessor	Explanation	Study material
48	48	Flynn's Classification	Explanation	Study material

Amalendu Kumar Pradhan

Signature of Faculty