

**Semester: IV**

<b>S.No</b>	<b>Topic</b>	<b>No. of Lectures</b>	<b>CO Covered</b>	<b>Teaching Methodology</b>
1	Blockchain, Growth of blockchain technology	1	CO1	Board
2	Distributed systems, History of blockchain and Bitcoin	2		Board+PPT
3	Types of blockchain.	1		Board + PPT
4	Methods of decentralization, Routes of decentralization	2		Board + PPT
5	Blockchain and full ecosystem decentralization, Smart contracts	2		Demonstration + PPT
6	Decentralized organizations and platforms for decentralization.	2		Demonstration + PPT
7	Architecture, Versions, Variants	1		PPT
8	Use cases, Life use cases of blockchain	2		Board + PPT
9	Blockchain vs shared Database,	1		Board + Book
10	Introduction to cryptocurrencies , Types, Applications	1	CO2	Board + PPT
11	Introducing Bitcoin, Bitcoin digital keys and addresses	2		Board + Book
12	Bitcoins:, Transactions, Blockchain mining	1		Board + PPT
13	Alternative Coins. Limitations of Bitcoin	2		Demonstration+ Board
14	Concept of Double Spending, Hashing, Proof of work	2		Demonstration + Board
15	Bitcoin Network and payments, Bitcoin network	2	CO3	Board + Book
16	Wallets, Bitcoin payments	1		Book + Board
17	Innovation in Bitcoin, Bitcoin Clients and APIs.	2		Book + Board
18	Introduction to Blockchain Platforms: Ethereum	2	CO4	Board + Notes
19	Hyperledger, IOTA	1		Demonstration +Book
20	EOS, Multichain, Bigchain, etc, Advantages and Disadvantages	1		Book + Board
21	Ethereum vs Bitcoin, Design a new blockchain	2		Board + Demonstration
22	Potential for disruption	2		Board + Demonstration
23	Design a distributed application	1		Board
24	Blockchain applications	2		Board + Demonstration
25		2		All COs