Introduction to Blockchain Technology (BC)

E4SEM1 Elective   **Subject Code: CS4418**

Syllabus for MT2

UNIT III: Consensus in Bitcoin- Introduction, Proof of work, Proof of stake, Proof of elapsed time, Proof of burn, Monopoly in bitcoin, Attacks- Double spending attack, Sybil attack, Denial of service attack, Bitcoin mining, Difficulty of mining, Permissioned blockchain – Definition, smart contracts- concept of state machine, Distributed state machine replication (crowd funding example) Consensus algorithms : RAFT consensus, Network faults, Byzantine general problem, Practical byzantine fault tolerance systems.

Unit IV: Blockchains for enterprises – Introduction, Actors and components in blockchain, System architecture