

Introduction to Blockchain Technology

E4SEM1 Elective

Subject Code: CS4418

Syllabus for MT1 Exam

UNIT I: Introduction to blockchain- History, definition, overview of centralized, decentralized and distributed architectures. Simplified architecture, Structure of a block, Introduction to hash functions - SHA256, Merkle tree and merkle root, introduction to bitcoin- Definition, Transaction life cycle, Bitcoin mining, Introduction to public key cryptography- Signature and Authentication,

UNIT II: Bitcoin – Creation of bitcoins, Transactions, Address generation, Use of public and private keys in bitcoin. Introduction to FORTH language, Bitcoin Script- Understanding of operators and execution of script using stack, Transaction validation using bitcoin script. Bitcoin peer-to-peer network- Joining procedure, Relaying transactions, Relaying blocks.