

CERTIFICATE COURSE IN BLOCKCHAIN TECHNOLOGY (CCBT)

COURSE CURRICULUM

1. Introduction to Blockchain

1. Basic concept of Blockchain, DLT and Trust
2. History of Blockchain (Financial crisis of 2008)
3. Centralisation vs. Decentralisation vs. Distributed
4. Types of Blockchain – Private, Public and Consortium
5. Architecture of Blockchain
6. Blockchain Security Management
7. Benefits of Blockchain Technology
8. P2P Systems
9. Digital Signatures
10. Hashes
11. Cryptocurrency
12. Bitcoin
13. Altcoin
14. Blockchain Ecosystem
15. Blockchain Governance/Regulations

2. Programmable Economy and Tokenomics

1. Basic concept of Tokenomics
2. Utility Tokens
3. Crypto Tokens
4. Different Blockchain Protocols
5. Consensus Protocols
6. External Technologies/tools supporting Blockchain

3. Introduction to Ethereum Platform

1. Introduction to Ethereum
2. What is Smart Contracts?
3. Features of Smart Contracts
4. Ethereum Virtual Machine (EVM)
5. Ethereum ecosystem, DApps and DAOs
6. Example of Solidity Programming
7. Standards for Ethereum tokens (ERC 20 and ERC 721)

4. Hyperledger

1. Introduction to Hyperledger
2. Hyperledger Fabric and its architecture
3. Hyperledger Composer

5. Emerging Trends in Blockchain

1. Cloud-based blockchain
2. Multichain
3. Geth
4. Stellar
5. Ripple
6. R3 Corda
7. Blockchain API
8. Blockchain Sandboxes

6. Blockchain Use Cases

1. Supply Chain Management
2. Finance
3. Health Care
4. Remittance
5. Land Records
6. Voting and election
7. Loyalty Programs
8. Go Green (Renewable Energy)