



Digital Transformation and Innovation

Mastering Blockchain: Exploring Future of Blockchain Technology

Course Introduction

Mastering the blockchain technology can be challenging as this technology demands the use of decentralized consensus to maintain the network. This implies that it is not necessarily controlled by any bank, corporation or government. With the emergence of bitcoin and blockchain, professionals in the technology and finance field must be able to learn how blockchain works and explore the evolution and current state of cryptocurrencies, and future trends in the blockchain technology. This training course is designed to provide participants with blockchain technology applications and the new developments of global companies with their blockchain works.

Target Audience

- Business and technology leaders
- Business Unit Managers
- Business Development Consultants
- General Managers / Regional Managers
- Senior and mid-level leaders
- individual leaders of all levels in the organization
- Art Director
- Marketing Consultants
- Marketing Development Manager

Learning Objectives

- Gain a comprehensive understanding of the relevant concept on the blockchain technology and bitcoin blockchain protocol.
- Identify the key applications of blockchain technology.

- Learn the concepts behind cryptocurrencies, digital ledger and Ethereum, and appreciate the importance of each in the field of technology and finance.
- Recognize and familiarize oneself with the latest global trends in blockchain and the new generation technology & shift of blockchain.

Course Outline

• Day 01

EXPLORING BLOCKCHAIN TECHNOLOGY

- Understanding Two Types of Blockchains
- What is the Bitcoin Blockchain Protocol?
- Examining the Promise of Permissionless Blockchains
- Applications of Blockchain Technology
- Exploring Smart Contracts
- Using Smart Contracts in Business
- Solving Challenges in Smart Contract Deployment

CRYPTOGRAPHY ESSENTIALS

- Securing Messages with Private-Key Encryption
- Securing Messages with Public-Key
- Verifying the Origin of Messages with Digital Signatures

• Day 02

DIGITAL LEDGER

- Short History of Money and Trust
- Fundamentals of Blockchains
- Bitcoin Mechanics
- Other Applications of Blockchains

INTRODUCTION TO ETHEREUM

- The need of Ethereum, Ethereum Foundation, Accounts & its creation
- How Ethereum Works
- Ethereum network
- Ethereum Virtual Machine

- Transactions and Types
- Gas - Transactional Fee & Incentivisations
- Blockchain Structure & Formation
- Mining & Consensus
- Smart Contracts
- Consensus - PoW

• Day 03

ALTERNATE PUBLIC, FEDERATED AND PRIVATE BLOCKCHAIN AND COMPARISONS

- Limitation of Public Blockchains
- Private and Consortium Blockchain, Benefits of private Blockchain
- Why Quorum and what it has
- Quorum Architecture Components
- Quorum Transaction Processing and Privacy
- Quorum consensus o Explanation of Raft
- Security and network permissioning
- Quorum setup
- Develop using quorum
- Running quorum nodes (Maker, Observer, Voter) o Developing smart contract
- Running permissioning
- Quorum API
- Corda Key concepts

• Day 04

NEW GENERATION TECHNOLOGY & SHIFT OF BLOCKCHAIN

- Top Global companies and their work in Blockchain technology
- New developments in Blockchain technologies & looking forward
- Case Study and Analysis: EOS
- Building application on EOS
- Case Study and Analysis: Auxledger
- Interoperability and Customizability with Auxledger
- Integration of Blockchain with other technologies: IoT, AIML and BigData
- Process excellence & Mistake proofing requirements

• Day 05

GLOBAL TRENDS IN BLOCK CHAIN USES

- Blockchain and banking & Financial Services
- Blockchain and Healthcare Industry

- Blockchain and Supply-Chain Industry
- Blockchain and identity
- Current projects around the world
- Blockchain and Utilities Industry

Confirmed Sessions

FROM	TO	DURATION	FEES	LOCATION
June 16, 2025	June 20, 2025	5 days	4950.00 \$	Austria - Vienna
Aug. 24, 2025	Aug. 28, 2025	5 days	4250.00 \$	Bahrain - Manama
Dec. 1, 2025	Dec. 5, 2025	5 days	4250.00 \$	UAE - Dubai