

Bitcoin and Cryptocurrency Technologies





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REF: B1746 DATE: 11 - 15 November 2024 Venue: London (UK) - Fee: 5850 Euro

#### Introduction:

This training program provides participants with essential knowledge and skills in Bitcoin and cryptocurrency technologies. It empowers them to understand the foundational principles, technological frameworks, and practical applications of cryptocurrencies.

# **Program Objectives:**

## At the end of this program, participants will be able to:

- Understand the foundational principles of Bitcoin and other cryptocurrencies.
- Identify the technological components and workings of blockchain.
- Explore the applications and use cases of Bitcoin and cryptocurrencies.
- Recognize the regulatory and security considerations associated with cryptocurrencies.
- Apply knowledge to evaluate and implement cryptocurrency solutions.

# Targeted Audience:

- IT Professionals.
- · Financial Analysts.
- Business Executives.
- Cryptocurrency Enthusiasts.
- Technology Consultants.

# **Program Outline:**

#### Unit 1:

#### Introduction to Bitcoin:

- · Overview of Bitcoin and its origin.
- Understanding Bitcoin s blockchain technology.
- The role of miners and the mining process.



- · Bitcoin transactions and wallets.
- · Key features and benefits of Bitcoin.

#### Unit 2:

## Cryptocurrencies and Blockchain Technology:

- Basics of cryptocurrency and how it works.
- Overview of major cryptocurrencies besides Bitcoin Ethereum, Litecoin, etc..
- Blockchain architecture and its components.
- Consensus mechanisms Proof of Work, Proof of Stake.
- · Security and privacy in blockchain and cryptocurrencies.

#### Unit 3:

## Applications and Use Cases:

- Financial applications: Payments, remittances, and investments.
- Smart contracts and decentralized applications DApps.
- Supply chain management and transparency.
- Healthcare and identity verification.
- Real-world case studies of cryptocurrency applications.

#### Unit 4:

# Regulatory and Legal Considerations:

- · Legal status of Bitcoin and cryptocurrencies worldwide.
- Regulatory frameworks and compliance issues.
- Taxation and reporting requirements for cryptocurrency transactions.
- Anti-money laundering AML and know your customer KYC regulations.
- Case studies on regulatory actions and implications.

#### Unit 5:



## Future Trends and Innovations:

- Emerging trends in cryptocurrency and blockchain technology.
- Decentralized finance DeFi and non-fungible tokens NFTs.
- The impact of quantum computing on blockchain security.
- Environmental sustainability of cryptocurrency mining.
- Future directions and potential developments in the cryptocurrency space.