



**IMI**  
KOLKATA



**Swaransh**  
IT solutions



# Certificate Programme in Blockchain



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## Overview:

Gain a solid understanding of blockchain with the Certificate Program in Blockchain which is jointly provided by the Center of Applied Blockchain and Digital Transformation at IMI Kolkata and Swaransh IT Solutions Private Limited. Starting with the basics of blockchain, the participants will be able to build decentralized apps, smart contracts, and work on industry specific use-cases through hands-on capstone project. Transform your career with this blockchain certificate program in just three months with this 100 hour of this certificate program and 2 months paid internship.

## Blockchain Course and Certification Details:

Equip yourself with blockchain skills to build and deploy blockchain solutions that drive innovation in industries like finance, supply chain, and more with this world blockchain course. Shape your career with this certificate program.

## Learning Path

### Module 1: Fundamentals of Blockchain

- History and Evolution of Blockchain, Understand the core concepts of blockchain, including centralized and decentralized systems, DLT, and its impact on industries.
- Major Types of Blockchain, and the Layers of Blockchain,
- Explore blockchain pillars like cryptography, game theory, computer science engineering concepts, consensus, and distributed ledgers.
- Understand the working of a distributed system in blockchain environments, and how transactions are processed, and the job of miners.
- Regulatory, Legal and Ethical issues in Blockchain.



## **Module 2: Overview of programming - Python Foundations**

- Basics of Python programming, understanding data types, control structures, and core programming concepts.
- Learn how to link different portions of the code and perform repetitive tasks.

## **Module 3: Evolution of blockchain, Cryptocurrency, and Ethereum**

- Overview of Cryptocurrency, Overview of Bitcoin and the Bitcoin Network, Bitcoin Transactions, and Bitcoin Wallets
- Overview of Ethereum blockchains, smart contracts, and DApps.
- Building smart contracts for different use-cases.

## **Module 4: Enterprise Blockchain Platforms**

- Explore enterprise blockchain platforms like Hyperledger, and Multichain for real-world applications.
- Solving use-cases using Hyperledger

## **Module 5: Overview of Fintech**

- Overview of DeFi, NFT, ICO, crowdfunding, lending in blockchain,
- Overview of RegTech, and Insurtech

## **Module 6: Strategizing and Marketing Blockchain based products**

- Identifying and Scoping of a business use case for Blockchain Implementation
- Design thinking approach and considerations for Blockchain projects.
- Marketing Strategies for Blockchain Based products
- Branding and Promoting Blockchain based products

## **Module 7: Discussion on Blockchain related use cases**

- Use of Blockchain in Finance
- Use of Blockchain in Education
- Use of Blockchain in Operations and Supply chain
- Use of Blockchain in HR
- Use of Blockchain in marketing



## **Module 8: Developing Applications and Architecture for certain use cases**

- Develop private blockchains, transfer assets, and explore streams.
- Develop and deploy smart contracts using Solidity, managing functions, variables, and security.
- Build enterprise-level applications by developing, deploying, and managing chain code in Hyperledger Fabric.

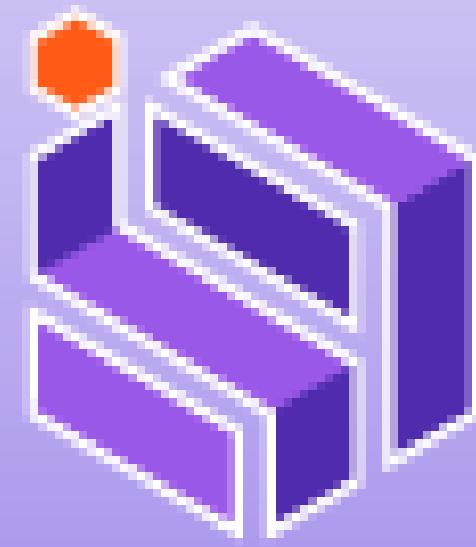
## **Module 9: Capstone Project**

- Apply your knowledge through practical capstone projects that simulate real-world blockchain challenges.
- Engage in multiple projects designed to integrate and demonstrate your skills.
- Sample Capstone Project: Medicine Supply Chain (Implement a solution to track hospital drug shipments. Track the drug's journey and enable real-time verification to improve communication and patient trust)

## **Module 10. Career Based Discussion**

- Participants will be given career guidance by corporate experts and academic experts from India and foreign countries. Participants will also be given an overview of the expectations during the internship period and how to approach the selection interviews.





## Tools Covered:

- Bitcoin
- Ethereum
- Hyperledger
- Truffle
- Solidity
- Hyperledger Fabric
- Python

## Eligibility Criteria

For admission to this Blockchain certification program, candidates should have:

- 2+ years of work experience (preferred, but not compulsory)
- A bachelor's degree with an average of 50% or higher marks
- Basic knowledge of coding in any platform

## Program Benefits

- Program completion certificate from IMI Kolkata and Swaransh IT Solutions Pvt. Ltd.
- Masterclass from eminent IMI Kolkata faculty having PhD from IIMs, and IITs.
- Masterclass from eminent Industry Experts and Blockchain Based Founders.
- Job Guidance and Opportunity for Blockchain based projects with industry
- Capstone project on real-world use cases



## Blockchain Industry Trends

The global blockchain technology market was valued at around USD 17.57 billion in 2023. The market is expected to grow significantly in the coming years.

### Market value projections:

- Fortune Business Insights: Predicts the market will grow to USD 825.93 billion by 2032
- Statista: Predicts the market will grow to nearly USD 1,000 trillion by 2032
- Data Bridge Market Research: Predicts the market will grow to USD 1,317.39 billion by 2031
- Skyquestt: Predicts the market will grow to USD 1,368.64 billion by 2032
- Researchnester: Predicts that the market will grow to USD 3.13 trillion by 2037

### Total Program Fees:

INR 110000 /- (inclusive of taxes)

### Flexible Payment Options:

Registration (By 15th June 2025): INR 5000/-

By 31st July 2025: INR 40000/-

By 15th September 2025: INR 20000/-

### Program Starts: First week of July 2025

### Group Discounts:

- 10 or more participants: 20% per participant
- 5 or more participants: 15% per participant
- 3-4 participants: 5% per participant