

ICAI
COURSE ON
BLOCKCHAIN TECHNOLOGY
FOR
PROFESSIONAL ACCOUNTANTS



BLOCKCHAIN
TECHNOLOGY

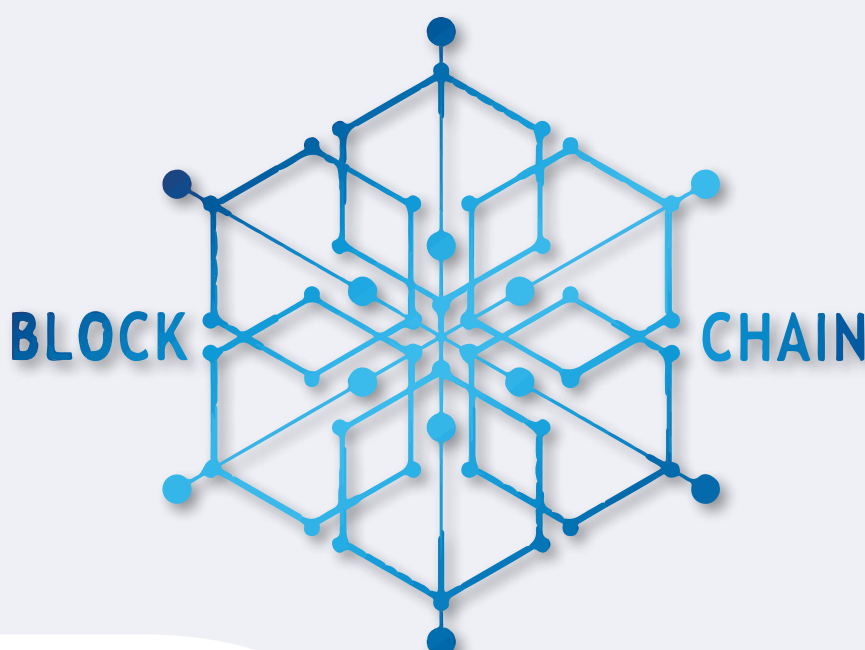


Digital Accounting & Assurance Board
The Institute of Chartered Accountants of India
(Set up by an Act of Parliament)

ICAI COURSE ON BLOCKCHAIN TECHNOLOGY FOR PROFESSIONAL ACCOUNTANTS

DIGITAL ACCOUNTING AND ASSURANCE BOARD
THE INSTITUTE OF CHARTERED ACCOUNTANTS OF INDIA

ADVANCE YOUR KNOWLEDGE OF BLOCKCHAIN



BLOCKCHAIN COURSE DESCRIPTION

Objectives

This five days Blockchain Course is designed to introduce the concepts of blockchain and explain the fundamentals of blockchain from perspective of a professional accountant. As a beginner, participants will be learning blockchain fundamentals, importance of consensus in transactions, smart contracts, how transactions are stored on blockchain, characteristics of cryptocurrency and digital wallets, etc.

In addition, participants will be learning about Ethereum development platform, other blockchain platforms and its working in addition to practical applications and use cases of blockchain technology. The Course would also cover issues pertaining to identifying opportunities and risks in blockchain ecosystem, understanding of governance and regulatory issues, areas where professional accountants can render assurance services related to blockchain implementations, etc.

Benefits

- Provide knowledge to professional accountants of high-level technology concepts forming base of blockchain
- Help to anticipate potential applications, benefits and risks of this emerging technology
- Exposure to blockchain use cases across various industry segments
- Exploring blockchain application in their organizations and lead in implementation
- Creating opportunities by translating this knowledge into relevant business application and value

Mode of Learning

- Five days master class lectures by experienced faculties
- Pre-reading material
- Guided Hands on exercise for blockchain platforms
- Team Case Study Presentation
- Reference books and reference material
- Online resources on blockchain
- Peer Learning and Mentorship

Who should attend?

- Professionals in Practise who are keen to invest into the future
- Industry professionals who want to diversify their skills
- CFOs / CXOs wanting to have a cutting edge in the market
- Professionals who are keen to be a part of this revolution on Blockchain Technology

Details

CPE Hours

Members of ICAI will be awarded 30 CPE hours for successfully completing the Course.

Certificate

All participants who have successfully completed the Course will be awarded a Certificate of Participation.

Fees

Fees for the Five Days Course BHD 200/-. This includes reading material and lunch, tea, etc.

Registration

Please register through BCICAI Mobile app or visit www.bahrain-icai.org

DETAILED COURSE CONTENTS

DAY	THEME	PARTICULARS
DAY 1	Blockchain evolution	<p>Session Coverage</p> <ul style="list-style-type: none">• Introduction and expectation settings (use case)• History of blockchain and bitcoin• Bitcoin and blockchain characteristics• Building block and core technologies for blockchain- cryptography, peer to peer, DLT, smart contract, hash• Consensus mechanism (consensus mechanism fault-tolerant mechanism used in computer and blockchain systems to achieve necessary agreement on single data)• PKI & Cryptography and the relevance for Blockchain• Team creations and mentor assigned <p>Learning Objectives</p> <ul style="list-style-type: none">• Understand the basics of blockchain• Identifying fundamentals of cryptocurrency and its evolution.• Distinguish between blockchains, cryptocurrency and ownership.• Understanding fundamental concepts of blockchain technology and smart contract• Distinguish between proof of work, proof of stake and mining• Understanding problem of consensus and how underlying mechanism of blockchain solves it
DAY 2	Blockchain ecosystem	<p>Session Coverage</p> <ul style="list-style-type: none">• Blockchain Definition Revision• Types of Blockchain (Private blockchain, public blockchain), (permission and permission less)• Blockchain Architecture & Different Platforms like Ethereum, Hyperledger, EOS etc• Genesis Block in Blockchain (first block in the blockchain. Modern versions of bitcoin number it as block 0)• 51% Attack theory• How to build a use cases and assess if it's a good fit to use blockchain• Creation of the use case Architecture• Use case- BFSI (Banking Finance Service and Insurance)<ul style="list-style-type: none">○ Trade finance○ KYC and identity Management○ International remittances○ Regulatory reporting <p>Learning objectives</p> <ul style="list-style-type: none">• Recognize elements of permissioned and permission less ledgers• Identify components of security models for both types of blockchains and the continuum where other blockchain reside• Recognize governing concepts behind transactions and fees in different blockchain use cases• Recall value propositions and accounting challenges of stable coins and privacy coins• Exposure to various blockchain platforms

DAY	THEME	PARTICULARS
DAY 3	Deep dive - Guided hands-on for participants	<p>Session Coverage</p> <ul style="list-style-type: none"> • Introduction to Ethereum and its use cases. (Ethereum is an open-source, public, blockchain-based distributed computing platform and operating system featuring smart contract functionality) • Hyperledger and its components. (Hyperledger is an umbrella project of open source blockchains and related tools) • Running two live cases on Enterprise Blockchain Platforms <p>Learning objectives</p> <ul style="list-style-type: none"> • Understand the differences between Ethereum and bitcoin • Understand Smart contract and its impact • Identify the characteristics of hybrid blockchains and blockchain-as-a-service • Recall how smart contracts differ from traditional contracts • Experiencing Enterprise Grade Blockchain Platforms and How They Can Be Used to Architect Solutions
DAY 4	Transforming enterprise business models	<p>Session Coverage</p> <ul style="list-style-type: none"> • Blockchain in supply chain – real time tracking of a product in a supply chain with the help of blockchain which reduces the cost of moving items in a supply chain. • Use cases <ul style="list-style-type: none"> ○ Asset tracking ○ Procure to pay ○ Claim management & warranty ○ Interoperability of various supply chain ○ Food and agriculture related cases • Manufacturing & IOT <p>IOT-The internet of things, or IoT, is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction.</p> <ul style="list-style-type: none"> • Use cases <ul style="list-style-type: none"> BOM tracking • Media & content industry, transport • Energy & governance <p>PDS Aadhar and land registry</p> <p>Learning objective</p> <ul style="list-style-type: none"> • Comprehend areas where blockchain is used • Recall how the internet of things will increase an auditor's scope <p>MCQ exam for participants</p>

DAY	THEME	PARTICULARS
DAY 5	Blockchain frontiers & Governance challenges	<p>Session Coverage</p> <p>Audit and Assurance-</p> <ul style="list-style-type: none"> • Process and Technical controls • System and Organizational controls • Blockchain analytics and auditing tools (Exporting the static blockchain data into an analytics platform for review of various transaction characteristics, segment transactions, analyse trends, predict future events, and identify relationships between blockchain and other data sources) • Governance, legal and regulatory issues in blockchain • Control responsibilities for permissioned blockchain applications • Real time and continuous auditing in blockchain implementation • Develop an integrated audit program on blockchain implementation. • Privacy & Blockchain <p>Learning objectives</p> <ul style="list-style-type: none"> • Understand the regulatory and governance issues on blockchain • Identifying various system and organization controls related to blockchain • Practical learning of blockchain analytics tools • Identify the fundamental and changing roles of Professional Accountants in blockchain ecosystem <p>TEAM PRESENTATION OF CASE STUDIES</p> <p>CONCLUDING SESSION</p>

