



# Certificate Programme in BLOCKCHAIN

# **BLOCKCHAIN** CERTIFIED EXPERT

# **BLOCKCHAIN-THE FUTURE**

To some, Blockchain is what Steam Engine was for Industrial revolution... To others, it is like the Internet in 1990's. We understood what it was, but we did not understand where it would go. The technology is emerging and ever evolving.

Blockchain technology creates a layer of 'Trust' in the digital transformation of the world. Blockchain creates trust because it represents a shared record of the truth. Data that everyone can believe in will help power other new technologies that dramatically increase efficiency, transparency and confidence. Blockchain is a hugely important, transformative technology that will re-shape businesses. It has a potential to disrupt several Industries and change the way we live.

# No.1

Blockchain is listed as the Number one "Skill" for 2020 in a new report compiled by jobs site LinkedIn.

# 70%

IoT based companies are expected to adapt to blockchain as backend technology by this year end.

# 23.3 bn

Forecasts suggest that global blockchain technology revenues expected to climb to over 23.3 billion U.S. dollars in size by 2023

# **PROGRAMME HIGHLIGHTS**



Live Online



Hackathons



Practical & Hands-On

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Industry Mentor Interaction



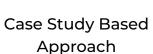
#### Industry Certification



Industry Projects



Vistual Internship

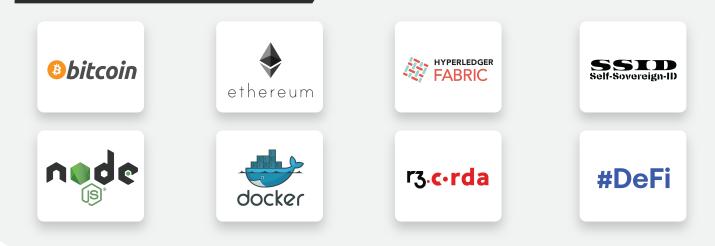


Personalized Assessment Report





# **TOOLS YOU WILL LEARN**



# **SYLLABUS / CURRICULUM**

#### MODULE 1

#### **Blockchain Genesis**

- Ø Blockchain Trends
- Bitcoin and Blockchain
- Onsensus Mechanism
- Properties of Blockchain
- Ø Blockchain use cases

#### MODULE 3

#### Ethereum

- Introduction to Ethereum
- Ethereum Architecture
- ⊘ Wallets
- ERC Tokens
- Smart Contracts

#### MODULE 2

#### **Blockchain Foundation**

- Distributed Computing
- Game Theory
- ⊘ Blockchain and Cryptography
- Onsensus Algorithms
- Blockchain Technology stack

#### MODULE 4

#### **Building D'Apps**

- Programming with Solidity
- Remix Compiler
- Ø Building D'Apps
- Building Applications with Web3 Interface
- Implementing end to end case study





# **SYLLABUS / CURRICULUM**

#### MODULE 5

#### Hyperledger

- Introduction to Hyperledger
- $\bigcirc~$  Hyperledger Framework and Tools
- ⊘ Hyperledger Fabric
- Components of Hyperledger Fabric

#### **MODULE 9**

#### R3 Corda

- Introduction to Corda
- Programming In Corda
- Setting up Corda Network
- End to end case Study

#### MODULE 6

#### Hyperledger Chaincode

- Introduction To Chaincode
- Programming with Go /Node.JS
- ⊘ Writing Chaincode
- Implementing end to end case study

#### MODULE 10

#### **Enterprise Ethereum**

- Intro to Enterprise Ethereum
- O Tools and Utilities
- Setting up the Network
- Deploying Applications

#### MODULE 7

#### Hyperledger Fabric Network

- Hyperledger Network Components
- Hyperledger Network Configuration
- Dockers and Kubernates
- Ochaincode Deployment

#### **MODULE 11**

#### **Blockchain - An Architect's View**

- Major Frameworks in Blockchain
- Ethereum, Hyperledger, Corda
- ⊘ Comparison of Frameworks
- Choosing the right framework for a Business
  Usecase

#### MODULE 8

#### **Advanced Hyperledger Fabric**

- O Hyperledger Fabric Architecture Deep dive
- $\oslash$  Hyperledger Fabric Consensus Mechanisms
  - SOLO, Kafka, RAFT
- MultiOrg Network Setup
- Business Network management

#### MODULE 12

#### **Create Your own Blockchain**

- ⊘ Need for creating your own blockchain
- Ø Blockchain Forking
- ⊘ How to create your own Blockchain
- Ø Best Practices





# **SYLLABUS / CURRICULUM**

#### MODULE 13

#### **Blockchain Design Thinking**

- ⊘ Introduction to Design Thinking
- Blockchain Design Thinking
- Best Practices
- Scalable Architecture Design

#### MODULE 15

#### DEFI

- Defi Demystified
- O Defi Application Framework- MakerDao
- ⊘ CBDC and its anamoly
- Future with Defi

#### MODULE 14

#### Self-Sovereign Identity

- Blockchain and Identity Management
- Ø Hyperledger SSI Projects
- Ø Building your SSI
- Decentralized Identity Foundation

#### MODULE 16

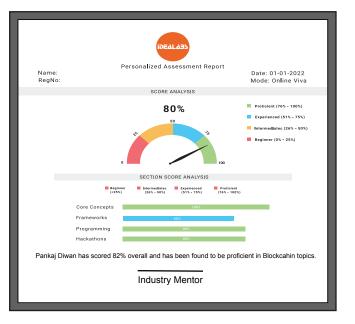
#### **Token Economy**

- Emergence of Token Economy
- ⊘ Types of Tokens
- ⊘ NFTS
- Create your own NFT Marketplace



On successful completion of the programme, you will earn a coveted certificate as Blockchain Certified Expert by Tech Mahindra and a Personalised Assessment Report by an Industry Mentor.





\*The Certificates shown above are for indicative purpose only. The actual certificates may vary.



**Personalised Assessment Report** 

Certificate Programme in  $\ensuremath{\mathsf{BLOCKCHAIN}}$ 



# **INDUSTRY MENTORS**



Ajay Jadhav FOUNDER, AYAN WORKS



Kishore Seshagiri FINTECH LEADER BROADRIDGE



CIO, GMR Group



Dharmen Dhulla BLOCKCHAIN ARCHITECT TECH MAHINDRA



Pankaj Diwan BLOCKCHAIN EVANGELIST IDEALABS



Sharat Chandra PRESIDENT, GBA INDIA



Jagadeesh Prasad BLOCKCHAIN ARCHITECT, TECH MAHINDRA



Prasanna Lohar CIO DCB BANK



Srinivas Mahankali HEAD-COE UL TECHNOLOGY SOLUTIONS PVT LTD

# BEST-IN-CLASS BLOCKCHAIN INDUSTRY EXPERTS





## **BENEFITS**

- ⊘ Learn from Industry Leaders
- ⊘ Certification from Tech Mahindra
- ⊘ Blockchain Community Connect
- ⊘ Live online with backup videos

- Personalized Assessment Report by Industry Mentor
- ⊘ 24\*7 Cloud based lab access with support
- ⊘ Peer network across top-notch companies
- ⊘ Career transition support

# **Domain Specific Projects / Case Studies**

## **LEADERS SPEAK**



#### JAYESH RANJAN Principal Secretary, ITE&C, Govt. of Telangana

I Congratulate Tech Mahindra and Idealabs for

I Congratulate Tech Mahindra and Idealabs for launching this programme. This is the need of the hour. I'm sure participants will benefit a lot from this programme.



#### **RAJESH DHUDDU**

Blockchain & CyberSecurity Leader, Tech Mahindra

We are happy to partner with Idealabs for this initiative. It will provide access to Blockchain learning and career opportunities for students and Professionals across India.



VINAY AGRWAL Global Head - HR, Tech Mahindra

Blockchain is one of the key skills in Digital Transformation. It can create a differential on your resume.



UDAY DESAI Prof. Emeritus and Founding Director, IIT Hyderabad

Ideally, this certificate by Tech Mahindra and Idealabs should be created as a Credit course in the syllabus. This can be of great advantage to students and Academia.





Idealabs has tied up with a host of corporates and startups across various domains for case studies & internship opportunities. Participants will get an opportunity to work on live case studies.



Rajesh Dhuddu Head of Blockchain Practice

#### Tech -----Mahindra

We have an exclusive partnership with Idealabs for the Blockchain Certification Programmes. The participants of the programme will get an opportunity to work on case studies and PoCs and get mentoring from TechMahindra blockchain team



Venkat Maroju, CEO

## Sourcelrace.

We are seeing a surge in requirements of digitization in agriculture using Blockchain for traceability of farm to fork. We are happy to engage participants from Idealabs in building these solutions.



Prasanna Lohar CIO

DCB BANK

It's a win-win situation for us to work with Idealabs blockchain programme participants. We get fresh ideas and they get the domain insights from our team.



Rama lyer CIO, GMR Group



At GMR group, we see a huge potential for blockchain across our operations from aircraft management to logistics and supplychain management. We are keen on working on innovtive usecases with Idealabs participants.







## **Client Project - Virtual Internship**

Idealabs has tied-up with several corporates and startups in different domains like Supplychain Management, Health, Agriculture etc. to avail case studies of Blockchain. The participants will get an opportunity to interact with the teams from these companies and work on their case studies.

The Participants will also get a client certificate on successful completion of the project.

## **Personalized Assessment Report**

Every participant will get a personalized Assessment report by a senior Industry mentor from a reputed company. The personalized assessment report will be hosted on our website for future reference. This neutral assessment will serve as a testimony of your accomplishments.





### **Placement Support**

Idealabs is currently working with more than 100 companies for their recruitment needs. The participants who complete the programme successfully will get a plethora of opportunities and job interviews. The Placement support shall continue for one year after the programme. Further the career advisory cell at Idealabs will work with you on the following aspects to improve your placement prospects:

Resume reviews | Mock Interviews | Job referrals

There is lot of excitement for starting up a new venture. Idealabs is tied-up with several Incuba-

Any participant or team interested in starting-up will be incubated by Idealabs and get all the support in terms of Idea validation, mentoring, market access and funding opportunities.



Incubation



### **Community Connect**

tors and Accelerators, startup enablers and Investment networks.

Idealabs has a very strong presence in the Blockchain Ecosystem including professionals, industry leaders, corporates, startups and government initiatives. Being connected with the Blockchain community is one of the most recommended ways to have continuous learning and opportunities.









# Certificate Programme in **BLOCKCHAIN**

# YOUR GREAT CAREER MOVE! JUST A CLICK AWAY !!!

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