



# Jansons Institute of Technology

Karumathampatti, Coimbatore - 641 659  
Approved by AICTE and Affiliated to Anna University  
An ISO 9001:2015 certified institution

## Department of Computer Science and Engineering Industry Readiness Course - Syllabus Cryptocurrency and blockchain technologies 2018 - 2019 EVEN Semester

### Course Objectives:

- To understand the basic theory underlying Block Chain and IoT.
- To be able to apply blockchain applications to solve problems of moderate complexity.
- Understand how blockchain systems (mainly Bitcoin and Ethereum) work.

### Course Outcomes:

- Analyse the block chain applications in a structure manner.
- Create a Bitcoin network and Demonstrate the ability to mine Bitcoins
- Ability to Handle the cryptocurrency.

### Syllabus:

#### Module 1 Introduction to Blockchain Technology and its importance 10

Introduction to Blockchain - Basic Crypto Primitives I - Cryptographic Hash - Basic Crypto Primitives II - Digital Signature - Evolution of the Blockchain Technology- Elements of a Blockchain - The business backdrop - The problem area- Relation to bitcoin - Requirements for blockchain in a business environment - Requirements deep dive

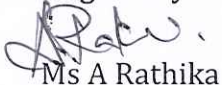
#### Module 2 Blockchain and its Consensus 10

Blockchain Consensus I - Permissionless Models - Blockchain Consensus II - Permissioned Models - Smart Contract Hands On I - Ethereum Smart Contracts (Permissionless Model)- Smart Contract Hands On I-Ethereum Smart Contracts (Permissioned Model)


#### Module 3 Introduction Crypto and Cryptocurrencies 10

Cryptographic building blocks- primitives used to construct simple cryptocurrencies - Bitcoin's consensus mechanism - Decentralization - Mechanics of Bitcoin - Bitcoin protocol - Bitcoin keys, security measures, and various types of services.

### Course Designed By


  
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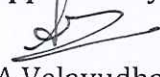
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