Annexure 1

Detailed Syllabus of Course

S. No	Module Title	Topics	Duration (Hours)		Learning Outcome
			Theory	Lab	
1.	**Grasping Blockchain Fundamentals**	• Tracing Blockchain's Origin, • The shortcomings of current transaction systems. • The emergence of bitcoin, t • he birth of blockchain, • Revolutionizing the Traditional Business Network, • exploring a blockchain application, • Recognizing the key business benefits Building trust with blockchain	1	1	• Understand what blockchain is. • List out the benefits of blockchain incorporated business model compared to traditional model.

2	**Taking a Look at How Blockchain Works**	• Why It's Called "Blockchain". • What Makes a Blockchain Suitable for Business? • Shared ledger, Permissions, Consensus, Smart contracts, • Identifying Participants and Their Roles.	4	1	• Understand what is meant by friction in businesses. • Apply blockchain concepts in easing and reducing frictions dominating the businesses.
3	**Propelling Business with Blockchains**	• Recognizing Types of Market Friction, • Information frictions • Interaction frictions, Innovation frictions, • Moving Closer to Friction-Free Business Networks • reducing • information friction, • easing interaction friction, • easing innovation friction, • Transforming Ecosystems through Increased Visibility.	5	3	• Understand what is meant by friction in businesses. • Apply blockchain concepts in easing and reducing frictions dominating the businesses.

4	**Blockchain in Action: Use Cases**	• Financial Services, • Commercial financing, • Trade finance, • Cross-border transactions, • Insurance, Government, • Supply Chain Management, Healthcare, • Electronic medical records, Healthcare payments pre-authorization The Internet of Things (IoT).	5	10	• Understand and apply the concepts of Blockchain in their respective sectors after analyzing the feasibility of it.
5	**Ten Steps to Your First Blockchain application**	• Deciding Whether Blockchain Has a Place in Your Industry, • Identifying Speed Bumps in Business Processes, • Determining How Blockchain Can Help, • choosing an Appropriate Use Case, • Determining the Goal of Your Blockchain Network, • Identifying Dependencies, • choosing a Blockchain Provider and Platform, • Developing and Deploying Chaincode, • Testing and Fine-Tuning Your Application and	5	10	• Understand the things to consider before development, do a feasibility analysis and then implement the blockchain concepts in building the application

		• Network, Joining the Hyperledger Rocket Chat Channel.			
6	**Ethereum, Smart contract and solidity**	• What is Ethereum, • Concept of Gas in Ethereum, Ether, • Ethereum Virtual Machine • Meta Mask and Execute Contracts Using Meta Mask • Wallets, creating accounts • Ethereum tools • what is Smart Contract, Basic constructs of a Smart contract, • Introduction to Solidity Programming, Developing and deploying Smart Contract	5	15	• Will learn solidity programming to implement smart contracts

7	**Hyperledger, a Linux Foundation Project**	• Hyperledger Vision, • Hyperledger Fabric • Go Programming • How Can IBM Help Developers Innovate with Blockchain? Offering an easily accessible cloud and, development platform, Individualized attention and industry expertise.	5	10	• Understand what is a HYPERLEDGER. • Identify and differentiate the various blockchain platforms • Will learn GO Programming Language
8	**Mini Project**	Project based on Blockchain implementation	-	10	
Total			**90 Hours(Theory-30, Lab-60)**		