

## **Blockchain System Training schedule on digitizing academic certificates**

### **1. Program Outline:**

<u>Date</u>	<u>Topics</u>	<u>Duration</u>
Day 1	1. Introduction to Blockchain Technology 2. Ethereum Blockchain 3. Smart Contract 4. Crypto wallet service and setup 5. Gas Fees	4 hours
Day 2	6. Technical Tools/Services required for DApp 7. Project architecture 8. Project Structure and Code	4 hours
Day 3	9. User Manual on the system 10. Live Demo	2 hours

### **Content Details:**

#### **1. Introduction to Blockchain Technology**

- i. What is blockchain?
- ii. Advantages of using blockchain
- iii. Key Concepts
- iv. Blockchain Use cases

#### **2. Ethereum Blockchain**

- i. What is Ethereum?
- ii. Why Ethereum blockchain
- iii. Decentralized application
- iv. Dapps over centralized system

#### **3. Smart contract**

- i. What is smart contract
- ii. How do smart contract work
- iii. ABI in smart contract

#### **4. Crypto wallet**

- i. Crypto wallet service
- ii. Meta mask

#### **5. Gas Fee**

- i. Gas fee?
- ii. Gas and why do gas fee exist
- iii. Gas fee calculation

#### **6. Technical / Tools used for Dapps**

- i. Ethereum
- ii. Ether
- iii. Wallet
- iv. Gas fee
- v. Smart contract
- vi. Solidity Programming language
- vii. Laravel framework
- viii. Truffle Framework
- ix. Text Editor
- x. Laravel 8 and bootstrap
- xi. Web3 Js
- xii. Infura
- xiii. Web server
- xiv. Database server

#### **7. Project Architecture**

- i. MVC Architecture

#### **8. Project Code**

- i. Explain and walk-through Project code and flow.

#### **9. Project user manual**

- i. User manual for blockchain system.

#### **10. Live Demo**

- i. Live demo on the system.