Lab Code	Lab Name	Credit
CSDL7022	**Blockchain Lab**	**1**

Prerequisite: Cryptography and Network Security	
Lab Objectives:	
1	To explore Blockchain concepts.
2	To implement public and private Blockchain.
3	To create applications using Blockchain.
Lab Outcomes:	
1	Creating Cryptographic hash using merkle tree.
2	Design Smart Contract using Solidity.
3	Implementing ethereum blockchain using Geth.
4	Demonstrate the concept of blockchain in real world application.

Suggested Experiments: Students are required to complete at least 10 experiments.	
Sr. No.	**Name of the Experiment**
1	Cryptography in Blockchain, Merkle root tree hash
2	Create a Blockchain using Python
3	Create a Crypto Currency using Python for the blockchain implement experiment 2
4	Case Study on different blockchain platforms Identify a Domain as per your choice and perform the below experiments with respect to the selected domain
5	Creating Smart Contract and performing transactions using Solidity and Remix IDE
6	Implement the embedding wallet and transaction using Solidity
7	Implement the Blockchain platform ethereum using Geth
8	Implement the Blockchain platform Ganache
9	Testing Interoperability and Cross-Chain Communication between platforms

10	Presentation on a suitable platform that meets the need of the Mini Project

Term Work:	
1	Term work should consist of 10 experiments.
2	Journal must include at least 2 assignments.
3	The final certification and acceptance of term work ensures satisfactory performance of laboratory work and minimum passing marks in term work.
4	Total 25 Marks (Experiments: 15-marks, Attendance Theory & Practical: 05-marks, Assignments: 05-marks)
Continuous Assessment Exam:	
1	Based on the subject and related lab of CSDC7022 and CSDL7022