COGNIZANCE 2K24

CSPIT CE

Title of Technical Event (Workshop): Blockchain Technology

Event Coordinators:

Faculty Coordinators

1. Mr. Martin Parmar - 8488065457

Student Coordinators

1. Mohit Gajjar (Student Id: D22CE163, 9714356313)

Event Description:

Workshop Overview:

This workshop offers participants a comprehensive grasp of Blockchain concepts, platforms, and their applications. Through hands-on experience, attendees will learn to develop decentralized applications (dApps), master the creation and testing of smart contracts, and gain insights into Blockchain's real-world problem-solving capabilities.

Workshop Topics:

Introduction to Blockchain

What is Blockchain?

History and evolution of Blockchain technology

Core principles and components of Blockchain

Types of Blockchain

Public, private, and consortium Blockchain

Permissioned vs. permissionless Blockchain

Distributed ledger technology (DLT)

Cryptocurrency and Tokens

Understanding cryptocurrencies (Bitcoin, Ethereum, etc.)

Tokenization and its significance. Nfts

Blockchain Architecture

Structure of a block

Consensus mechanisms (Proof of Work, Proof of Stake, etc.)

Nodes, miners, and validators

Smart Contracts

What are smart contracts?

Use cases and applications

Developing and deploying smart contracts (REMIX Ethereum, Truffle/Hardhat, Ganache)

Decentralized Applications (dApps)

Characteristics and advantages of dApps

Building a simple dApp (hands-on activity)

Workshop Format:

- Lectures and Presentations: Experts in the field deliver presentations on Blockchain topics, explaining concepts and best practices.
- Hands-on Sessions: Participants engage in practical exercises to work with Blockchain platforms, tools, ide, and Smartcontract.
- Case Studies: Analysing real-life use cases of Blockchain projects to understand successful implementation strategies and challenges faced.
- Q&A Sessions: Opportunities for participants to ask questions and discuss specific concerns with the instructors.
- Networking: Participants can interact with industry professionals, fellow attendees, and workshop organizers to expand their professional network.

Target Audience: (Max 150 Participants)

Students from Computer Engineering, Computer Science and Engineering, Information Technology, and Master of Computer Applications. Applicable to Diploma, Degree, and Master Program.

By the end of the workshop, participants should have exposure to Blockchain Technology concepts and equipped with practical skills to develop Blockchain-based applications especially smart contract development and its testing.