



Government of Gujarat

# Gujarat Technological University

(Accredited with A+ grade by NAAC)

## Centre of Excellence in Blockchain Technology

(A Government of Gujarat Funded Project)

### LECTURE SERIES IN THE DOMAIN OF BLOCKCHAIN TECHNOLOGY

#### A Report on Lecture 1

#### Recent Trends in Blockchain Technology: Implementation Perspective

(Date: 15<sup>th</sup> April, 2023)

The online session was organized by GTU-Graduate School of Engineering and Technology under CoE in Blockchain Technology.

The resource person for this session was **Prof. (Dr.) Sudeep Tanwar** who is Professor at Nirma University, Ahmedabad.

#### Learning Objectives

- To make the participants aware about nuts and bolts of blockchain technology.
- To provide insights of taxonomy of consensus protocols for permissioned blockchains.
- To cover the tools and techniques to develop a new consensus protocol.
- To provide the detailed guidelines of how to frame out a case study using blockchain technology.

#### Participants

Around 70 participants including PG students, research scholars, faculty members from different institutes across the state were joined and took advantage of this session.

#### Content covered

1.	Decentralization and requirement of blockchain technology
2.	Types of blockchain
3.	Demonstration of creating a blockchain
4.	Creating a blockchain in Java
5.	Appropriate problems to be solved by blockchain
6.	Potential blockchain applications of national interest
7.	Research challenges and issues

## Potential Blockchain Applications of National Interest

- ✓ Transfer of Land Records (Property Record Management)
- ✓ Digital Certificates Management (Education, Death, Birth, agreements, sale, deeds ...)
- ✓ Pharmaceutical supply chain
- ✓ e-Notary Service (Blockchain enabled e-Sign Solution)
- ✓ Farm Insurance
- ✓ Identity management
- ✓ Power distribution
- ✓ Duty payments
- ✓ Agriculture and other supply chains
- eVoting
- ⊖ Electronic Health Record Management ← DISHA
- Digital Evidence Management System
- Public Service Delivery
- IoT Device Management and Security
- Vehicle lifecycle management
- Chit fund operations administration
- Microfinance for Self-Help Groups (SHG)

**Source: Government of India Ministry of Electronics and Information Technology (MeitY) February 2021**

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