SNS COLLEGE OF TECHNOLOGY

Coimbatore-35
An Autonomous Institution

Accredited by NBA – AICTE and Accredited by NAAC – UGC with 'A++' Grade
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

DEPARTMENT OF INFORMATION TECHNOLOGY

BLOCK CHAIN AND CRYPTOCURRENCY

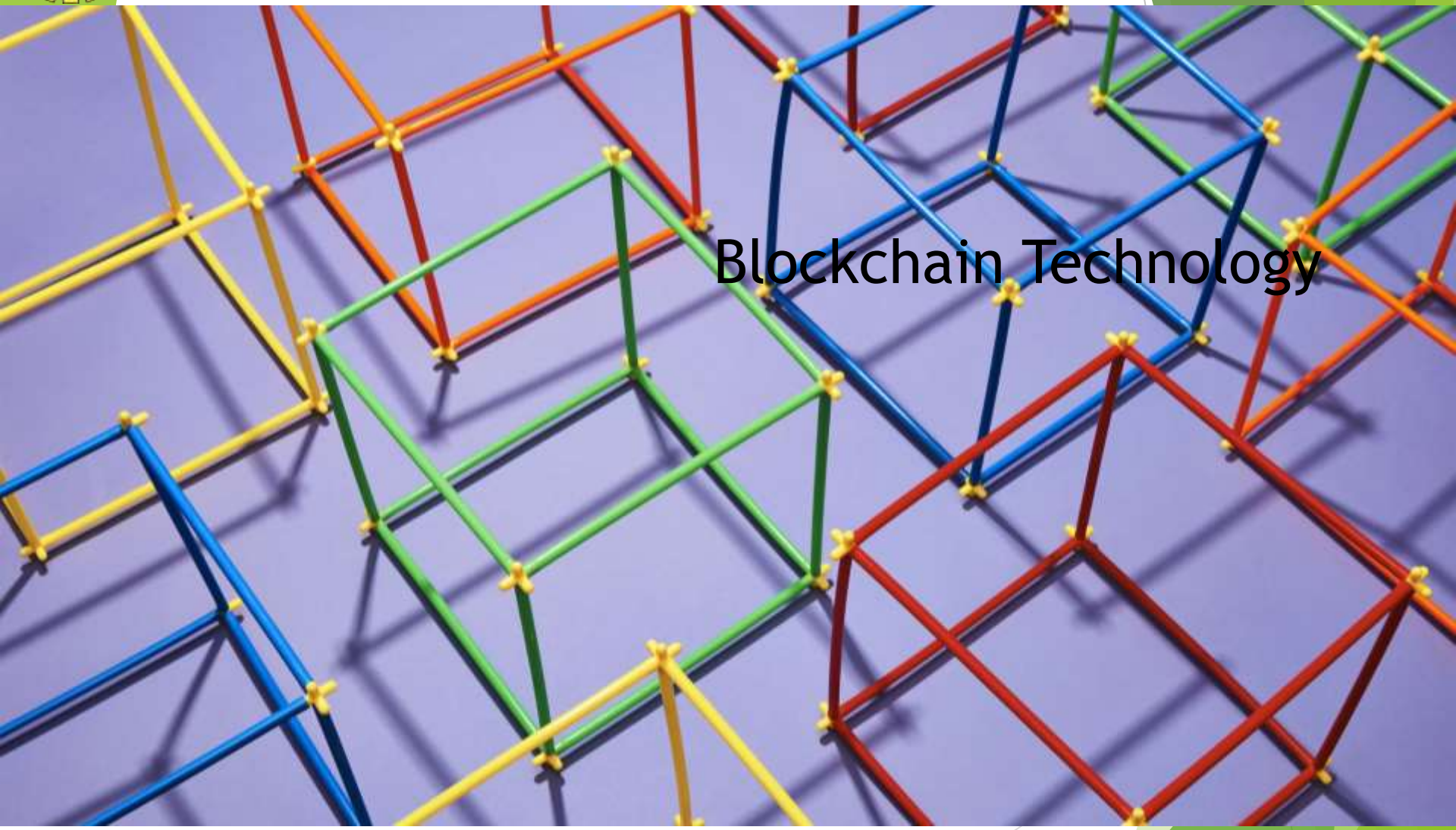
IV YEAR - VII SEM

UNIT 1 – Block chain

Introduction to Block chain

Introduction to BlockChain

Introduction to BlockChain



Introduction to BlockChain

The history of Bitcoin

2008	2009	2010	2011
Idea was published under the pseudonym Satoshi Nakamoto	Start of the Bitcoin Network	Fist cryptocurrency stock exchange is launched	One Bitcoin equals one USD

Introduction to BlockChain

The history of Bitcoin

2013

1 Bitcoin equals 100 USD

2014

Microsoft accepts Bitcoin

2017

1 Bitcoin equals 10,000 USD

Introduction to BlockChain

Bitcoin ≠ blockchain

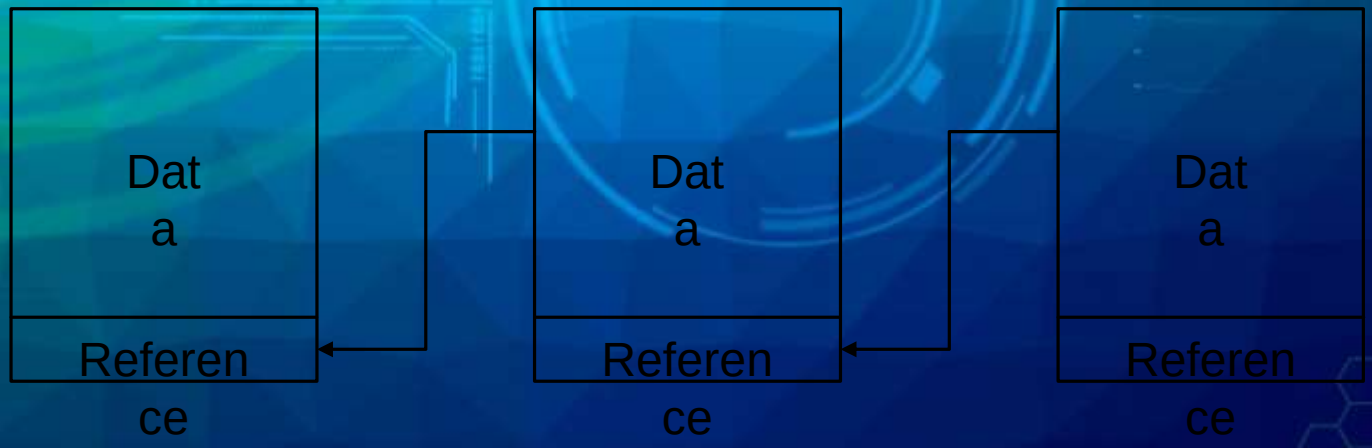
Is an application of blockchain technology

Is the underlying datastructure, which can be used for many things, including cryptocurrencies

Introduction to BlockChain

What is A Blockchain?

A blockchain is a growing list of data blocks that are linked together.



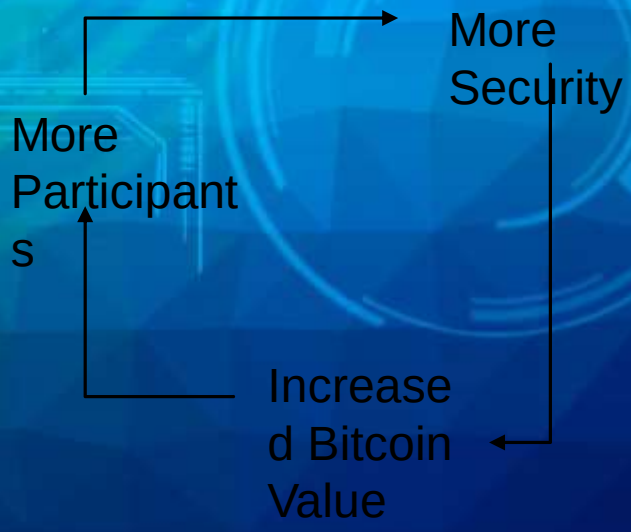
Bitcoin ecosystem

A public network in which anyone, including a malicious participant, can participate without restriction.

Even though it is not organized by a central authority, it works!

Introduction to BlockChain

Bitcoin ecosystem



Introduction to BlockChain

Cutting the middleman

E.g. direct transfer
of Bitcoins

Building Consensus

After a finite time, all participants agree on a single state.

E.g. on who owns how many Bitcoin.

CREATING WITNESSES

If something is published on a public blockchain, all participants become witnesses.

This is used, for example, by OriginStamp to create a secure timestamp for documents.

Introduction to BlockChain

Key Features

Write-only, immutable, transparent data storage

Decentralized, no need for intermediaries

Consistent state across all participants

Resistant against malicious participants

Open to everyone

Introduction to BlockChain

challenges

Energy consumption

Scalability

Money laundering

Personal responsibility