

### **SNS COLLEGE OF ENGINEERING**

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# 19SB603-Bitcoin

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### **Bitcoin Definition**

Bitcoin is a decentralized digital currency that operates on a peer-to-peer blockchain network without a central authority. It uses cryptographic hashing and Proof of Work (PoW) to secure transactions and prevent double-spending. Transactions are recorded on a public ledger (blockchain), ensuring transparency, security, and immutability. Launched in 2009 by Satoshi Nakamoto, Bitcoin is the first and most widely used cryptocurrency.







## **Key Features of Bitcoin**

- Decentralized No central authority controls Bitcoin.
- Blockchain-Based Transactions are recorded on a public ledger.
- Secure & Immutable Uses cryptographic hashing and PoW consensus.
  - Limited Supply Maximum 21 million BTC can ever exist.
- Peer-to-Peer Transactions Enables direct digital payments without intermediaries.





# **How Bitcoin Works**



• **Transaction Initiation** – A user sends Bitcoin from one wallet to another.

Transaction Verification – Miners validate transactions using
Proof of Work (PoW).

- **Block Creation** Verified transactions are grouped into a block.
- Blockchain Update The new block is added to the Bitcoin blockchain.
- **Finalization** The transaction is confirmed and becomes **immutable**.



# HOW DO "BITCOINS" WORK?









Software will generate unique address.

People can pay you through this address.

4EAuJ90Myrx6Vh5ogB121sifJ37G



You may now use bitcoins to pay online!

Bitosin network authenticates transactions.

You buy bitcoins with offline currency. The funds are added to your digital wallet.



