

Experiment. No. 13

Title : Installation of metamask and study spending ether per transaction.

Objective : To learn new technology such as metamasks. Its application and implementations.

Theory :

Introduction to Blockchain:

Blockchain can be described as a data structure that holds transactional records and while ensuring security, transparency and decentralization. You can also think of it as a chain of records stored in the forms of blocks.

A blockchain is a distributed ledger that is completely open to any and everyone on the network. Once a information is stored on a blockchain, it is extremely difficult to change or alter it.

Each transaction on a blockchain is secured with a digital signature that proves its authenticity. The data stored on the blockchain is tamper-proof and cannot be changed.

It allows all network participants to reach an agreement, commonly known as consensus. All data stored on a blockchain is recorded digitally and has common history which is available for all the network participants.

The following features make the revolutionary technology of blockchain stand out :-

Decentralized: Blockchains are decentralized in nature meaning that no single person or group holds authority of the overall network while everybody in the network has the copy of the distributed ledger with them, no one can modify it on his or her own.

Peer-to-peer Network: Blockchain uses P2P protocol which allows all the network participants to hold identical copy of transactions, enabling approval through a machine consensus.

Immutable: The immutability property of a blockchain refers to a fact that any data once written on the blockchain cannot be changed. Once you send an email to a bunch of people, you cannot take it back, this is how immutability works.

Tamper-proof: Blockchains are considered tamper-proof as any change in even one single block can be detected and addressed smoothly. There are two key ways of detecting tampering namely, hashes & blocks.

Benefits of Blockchain Technology:

Time saving: No central authority verification needed for settlements making the process faster & cheaper.

Cost saving: It reduces expenses in several ways.

Tighter security: No one can tamper with blockchain data as it is shared among.

How to use metamask

metamask is one of the most popular browser extensions that serves as a way of storing your Ethereum and other ERC-20 Tokens. The extension is free and secure, allowing web applications to read and interact with Ethereum's blockchain.

step 1. Install metamask on your browser.

click on install metamask as a Google chrome extension

click add to chrome

click add extension

step 2 : create an account

step 3 : Depositing funds

click on view account.

You can now access your list of assets in the Assets tab & view your transaction history in the Activity tab.

what advantages does metamask have :

Popular - It is commonly used, so users only need one plugin to access a wide range of dapps.

simple - Instead of managing private keys, users just need to remember a list of words, and transactions are signed on their behalf.

saves space - Users don't have to download the Ethereum blockchain, as metamask sends request to nodes outside of the user's computer.

Integrated : Dapps are designed to work with metamask, so it becomes much easier to Ether in and out.

conclusion :

In this way, we have studied concept of Blockchain and metamask wallet for transaction of digital currency.