



# **SNS COLLEGE OF ENGINEERING**

Kurumbapalayam (Po), Coimbatore – 641 107

**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 COMPUTER SCIENCE AND TECHNOLOGY**

**COURSE NAME: 19CS622-Blockchain Technology**

**III YEAR /VI SEMESTER**

**Unit III- ETHEREUM**


**Topic : Working of Ethereum**



# Ethereum



- Ethereum is a blockchain-based development platform known for its [cryptocurrency](#), ether (ETH).

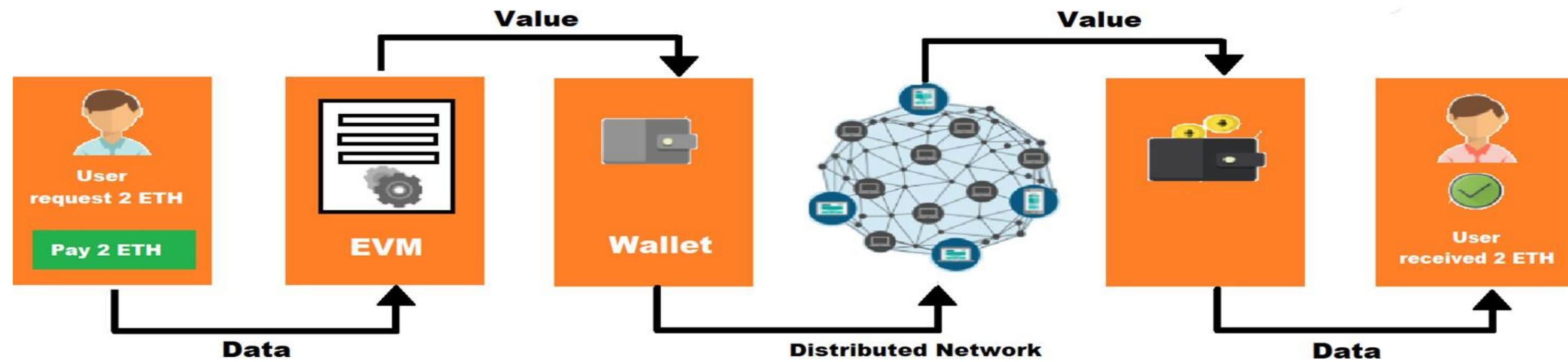
An illustration on a blue background depicting various blockchain and financial concepts. It includes a person standing next to a bar chart, a padlock, a calculator, a dollar sign, a computer monitor showing a signature, and a person standing next to a document. Lines connect these elements, suggesting a network or process.

## Ethereum

*[i-'thir-ē-am]*

An open-source blockchain that is known for its smart contracts functionality, and which serves as the basis for the cryptocurrency ether (ETH).

## Ethereum working procedure





# Working of Ethereum

- The memory in Ethereum stores data and code.
- The Ethereum blockchain tracks the changes in data and thus it tracks the changes in its memory.
- Ethereum first loads the program, executes it and finally stores the results in its blockchain.
- Accepting transactions from different nodes or accounts.
- Updating the state for accepted transactions.
- Storing and maintaining the state in its memory.
- The states are maintained until another accepted transaction happens.
- This process is repeated for each change.





# Assessment 1



- The smallest unit or denomination of ether is a wei.
- There are seven total denominations: Wei, Kwei, Mwei, Gwei, micro-ether (Twei), milli-ether (Pwei), and ether.





# References



## TEXT BOOKS

1. Mastering Bitcoin: Unlocking Digital Cryptocurrencies, by Andreas M Antonopoulos 2018
2. Imran Bashir, “Mastering Blockchain: Distributed Ledger Technology, Decentralization and Smart Contracts Explained”, Second Edition, Packt Publishing, 2018.
3. <https://101blockchains.com/blockchain-vs-database-the-difference/>

## REFERENCES

1. William Mougayar, “Business Blockchain Promise, Practice and Application of the Next Internet Technology, John Wiley & Sons 2016.
2. Josh Thompson, ‘Blockchain: The Blockchain for Beginnings, Guild to Blockchain Technology and Blockchain Programming’, Create Space Independent Publishing Platform, 2017.
3. Arvind Narayanan, “Bitcoin and Cryptocurrency Technologies: A Comprehensive Introduction”, Princeton University Press, July 19, 2016.
4. Henning Diedrich, Ethereum: Block chains, Digital Assets, Smart Contracts, Decentralized Autonomous Organizations-2016

# Thank You