

## ABSTRACT

Blockchain Technology is a Digital Ledger or digital bookkeeping of virtual transactions, where the transaction data cannot be modified even though it has moved from device to other device, in other words each data does not have a Central Authority or central authority to change the details of these data . Every data on Blockchain technology is called Block, where each Block uses cryptographic principles to secure it. Every Block is created on the blockchain. One of the platforms of the Blockchain is Ethereum. Ethereum is a Blockchain platform that uses Smart Contracts to be able to create a transaction data block. Smart Contract itself is a protocol that facilitates, verifies and executes transactions to be recorded into contracts that can later be converted to code snippets that can be stored on the computer. Ethereum Blockchain has also been used as a model for applications such as the majority are web applications, which are used for Decentralized data distribution, voting systems for elections, and those that are being developed by the Messenger app. Data that moves between one another in applications that use Blockchain as a model, of course, moves by riding an ETH (Cryptocurrency) transaction. Each moving data has limitations such as GasPrice, GasLimit, and Difficulty parameters for transactions containing sent or received data. To save data to Block from Chain Ethereum requires a digital currency Ethereum, which must be purchased with real money, for that one alternative that can be applied is the creation of a private Blockchain Ethereum server, where each transaction uses the digital currency Ethereum which can be modified Ethereum Wallet or Genesis.json file on the Ethereum algorithm with whatever you want so that the process of transferring data in transactions can be done for free.

*Keywords - Blockchain, Ethereum, GasPrice, GasLimi, Difficulty, Cryptocurrency, Block*