

## **Abstract**

The features of Blockchain make it convenient for different applications. One of the characteristics of blockchain is transparency in which all information about transactions is shared and transferred to all nodes in the blockchain; each node knows what is going on in the database. This can confirm trust even in an environment of anonymity. Since the data is available to everyone in the system, this supports the immutability of data so no one can change or tamper with the transaction. A blockchain is a decentralized peer-to-peer system with no central authority figure. While this creates a system that is devoid of corruption from a single source, it still has some problems. Forking is one of these problems. In blockchain, forking refers to the branching of a blockchain path into two or more chains. Because of block propagation delay in blockchain, miners can find blocks at nearly the same time and that will bring a lot of risks to the blockchain network. In this thesis, a new method for block propagation will be proposed to reduce noncompulsory outgoing connections, and as a result, it will minimize the propagation delay.