

ABSTRACT

The work contains 106 pages, 1 tables, 47 figures, 14 sources.

VIRTUAL PRIVATE NETWORK, VPN TOPOLOGY, HASH FUNCTION, HASH TABLE, SMART CONTRACT, DATA EXCHANGE, INFORMATION PRIVACY, TRANSACTION, ASSYMETRIC CRYPTOGRAPHY, ETHEREUM, BLOCKCHAIN

The object of the study become Blockchain technology as a means of deploying a VPN network.

The purpose of the work: the formation of the principles of the VPN network based on Blockchain, description of the processes to occur in the transmission of data and implementation of a layout that demonstrates the transmission of data. During the execution of this thesis, an analysis of existing topologies for constructing VPN networks were conducted. The principle of Blockchain technology and its components were investigated. As a result, a list of components and steps that form the principles of VPN network operation based on Blockchain technology has been generated. The results could be used to further deploy the network.