

BLOCKCHAIN-BASED E-VOTING SYSTEM TO IMPROVE ELECTION TRANSPARENCY AND SECURITY

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ABSTRACT

Voting is one of the election methods that is still used today. The current election process is still use ballots and manual calculations. It is impractical, relatively expensive, time-consuming, full of errors and fraud. Technological developments present an alternative such as e-voting. The electronic voting system utilizes information technology in voting and counting, so that it can be done anywhere and anytime. While offering many advantages over conventional elections, e-voting faces challenges in terms of security, and transparency data. To address these challenges, the implementation of blockchain in the e-voting system is proposed in this research. The primary objective is to enhance transparency, integrity, and security in the voting process. Kanban is used as an approach to developing this system. The system is develop using JavaScript for the front-end and Solidity to create smart contract within the Ethereum Network. The results of this study is a transparent and secure blockchain-based e-voting system and this system can be adopted by various organizations to carry out the voting process.

Keywords : *e-voting, smart contract, blockchain, transparency, security*