ABSTRACT

Elections are a fundamental mechanism for fostering democracy, including within student organizations. However, conventional election methods often face challenges such as fraud, data manipulation, and high operational costs. This research aims to develop a blockchain-based e-voting system using Agile Blockchain DApps Engineering methodology as a solution for electing the head of BEM FSM Universitas Diponegoro. The system is designed to ensure security, transparency, and efficiency through the utilization of smart contracts and distributed databases. Blockchain technology is employed to permanently record votes and safeguard voting data against manipulation. The system incorporates voter validation, vote recording, and the management of voter and candidate data. The results indicate that the proposed system can providing better security and transparency compared to traditional methods.

Keywords : e-voting, blockchain, Agile Block Chain DApps Engineering, digital democracy