

E-VOTING SYSTEM USING BLOCKCHAIN

ABSTRACT

Blockchain-based electronic voting is suggested as a safe and open way for people to cast their ballots and have them tabulated. Throughout the system's voter registration procedure, each eligible voter is given a special ID that is stored on the blockchain as a public key, for example. Every candidate must register, providing details such as their name and party membership, which are then stored in the database. This process is known as candidate registration. Using a web application, voters can cast their ballots on a secure online platform. The voter and candidate identifiers are included in each transaction that represents a vote on the blockchain. The transaction is verified by each node on the blockchain network, and once verified and approved, it becomes a part of the blockchain's immutable ledger. The transparency and immutability of the blockchain ledger provide accuracy and tamper-proofing since the outcomes of the election are established by tallying the number of votes received by each candidate. Furthermore, the blockchain-based electronic voting system can be created to provide real-time vote counting, resulting in quicker and more precise outcomes.

The proposed blockchain-based electronic voting system stresses security, transparency, and verifiability while also being user-friendly and available to all qualified voters, protecting their anonymity and privacy.