

Democratic voting is a crucial and serious event in any country, the current voting scheme in any country is through ballot paper or by use of EVM. These processes have many drawbacks such as transparency, low voter turn-out, tampering of votes, distrust in the election body, forging of unique Id (voter id card), delay in giving out results and the most important is security issues. Security of digital voting is always the biggest concern when considering to implement a digital voting system. With such monumental decisions at stake, there can be no doubt about the system's ability to secure data and defend against potential attacks. One way the security issues can be potentially solved is through the use of blockchain technology. Blockchain technology offers infinite number of applications. Blockchain is a distributed ledger technology that allows digital assets to be transacted in a peer-to-peer decentralized network. A distributed ledger technology is an exciting advancement in this regard. Block is a collection of all the transactions. Blockchain possess salient features such as immutability, Decentralization, Security, Transparency and anonymity. Blockchain with smart contracts emerges as a promising candidate for building a safer, secure and transparent E-voting systems.

Blockchain is offering new opportunities to develop new types of digital services. While research on the topic is still emerging, it has mostly focused on the technical and legal issues instead of taking advantage of this novel concept and creating advanced digital services. In this paper, we are going to leverage the open source Blockchain technology to propose a design for a new electronic voting system that could be used in local or national elections. The Blockchain-based system will be secure, reliable, and anonymous, and will help increase the number of voters as well as the trust of people in their governments.