

E-Voting System: Applied Blockchain Concept for Implementation

Aditi D. Desale¹, Snehal B. Khode², Mansi G. Dusane³, Tejas S. Mokal⁴

Department of Computer Engineering^{1,2,3,4}

Guru Gobind Singh Polytechnic, Nashik, Maharashtra, India

aditidesale02@gmail.com, mansidusane2005@gmail.com,

khodesnehal046@gmail.com, tejas mokal083@gmail.com

Abstract: *One framework that lowers the proportion of abstention and guarantees security against vote tampering is the electronic voting system. Blockchain is a distributed, decentralized ledger that is used to efficiently and verifiably record transactions. Voter fraud is prevented by integrating Aadhar into the electronic voting system. With the use of voter's VIDs (virtual IDs) that are gathered from the Aadhar database and biometric information, the proposed scheme offers a secure electronic voting method. The digital signature is used as the key to encrypt the votes within the block.*

Due to the present surge in interest in the use of blockchain technology for several applications, including identity, money, and healthcare, more attention has been paid to the legal ramifications of this technology than to its usefulness in administration.

Thus, to eliminate the drawbacks of the current Indian voting system, and provide a better, more dependable, safe, and transparent form of public governance, we can create an application utilizing blockchain as an effective option for public voting. Blockchain technology is a means of governance, not only an object of regulation and governance.

The powerful cryptography used by these technological elements offers a security level that is on par with or higher than any database that has ever been known..

Keywords: Blockchain

REFERENCES

- [1]. Secure digital voting system based on blockchain technology: by Kashif Mehboob Khan, Junaid Arshad, and Muhammad Mubashir Khan
- [2]. Electronic Voting Based on the Virtual ID of Aadhar Using Blockchain Technology, by Roopak T. M. and, Dr. R Sumathi
- [3]. Digital Voting: A Blockchain-based EVoting System Using BioHash and Smart Contracts by Nasir Uddin, Linta Islam