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Online Voting System - Based on Blockchain

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Abstract: Our project deals with online voting system that facilitates user(voter), candidate and administrator (who will be in charge and will verify all the user and information) to participate in online voting. our online voting system is highly secured, and it has a simple and interactive user interface. The proposed online portal is secured and have unique security feature such as unique id generation that adds another layer of security (except login id and password) and gives admin the ability to verify the user information and to decide whether he is eligible to vote or not. It also creates and manages voting and an election detail as all the users must login by username and password and click on candidates to register vote. Our system is also equipped with a chat bot that works as a support or guide to the voters, this helps the users in the voting process.

Keywords: Blockchain Based Online Voting System, Face Recognition Based Online Voting System, Fingerprint Based Online Voting System, AADHAAR ID Based Online Voting System

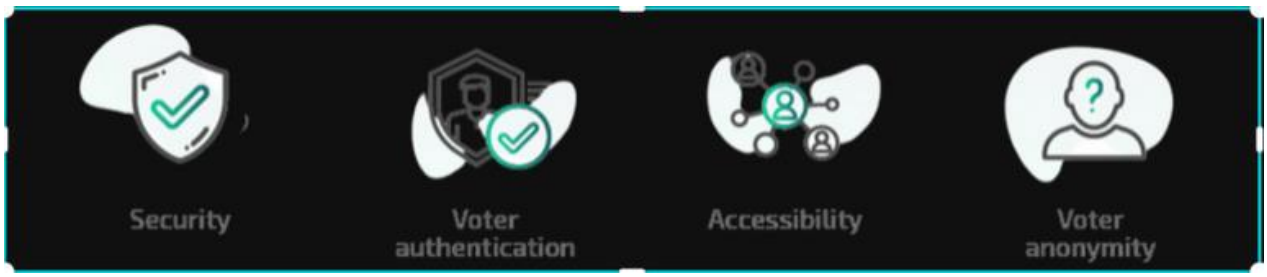
I. INTRODUCTION

Online voting system is an online voting technique. In this system people who are authorized by the admin can cast his/her vote online without going to any physical polling station. There are many voting procedures which are being used for Voting purpose, such as Ballot Paper, EVM Machine but all these procedures require more time and more manpower so to eliminate all these drawbacks we provide on Online Voting System which provides features such as accuracy, convenience, flexibility, privacy, mobility and verifiability. This makes voting a fearless of violence and that increases the percentage of voting.

II. METHODOLOGY

[1] Blockchain is a system of recording information in a way that makes it difficult or impossible to change, hack, or cheat the system.
[2]A Blockchain is essentially a digital ledger of transactions that is duplicated and distributed across the entire network of computer system on the Blockchain. Each block in the chain contains a number of transactions, and every time a new transaction occurs on the blockchain, record of that transaction is added to every participant ledger.
[3]A Blockchain is a growing list of record, called blocks, that are linked together using cryptography. Each block contains a cryptographic hash of the previous block, a timestamp, and transaction data.

III. SYSTEM MODEL



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IV. LITERATURE REVIEW

E-Voting or Electronic Voting is a means for the election process to be conducted without the use of the traditional paper ballots.[1]
The phenomenon of the use of Information Technology is the election process is rapidly gaining momentum. This advancement referred to as E-Voting offers advantages than the paper-based voting system.[2]
However, the in-depth study of Blockchain solutions in the government sector is still under researched despite the growing academic interest in this area.[3]
Voting in Cryptography involves security and a secure system. It is important to implement such a system. This will reduce labor, make ballot easier to use and more productive.[4]

V. CONCLUSION

Online Voting System have many advantages over the traditional voting system. Some of these advantages are less cost, faster generation results, easy accessibility, accuracy, and low risk of human and mechanical errors. It is very difficult to develop online voting system which can allow security and privacy on the high level. Future development focused to design a system which can be easy to use and will provide security and privacy of voters on acceptable level by proper authentication and processing section. It is easy to use and it is less time consuming. It is very easy to debug.

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