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E-voting System Using Bio-metric

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ABSTRACT: Increasing digital technology has revolutionalized the life of people. Unlike the electoral system, there are current uses of paper in its implementation. The aspect of security and transparency is a threat from still widespread election with the conventional system (offline). General elections still use a centralized system, where in one organization manages it. Some of the problems that can occur in traditional electoral systems is with the organization that has full control over the system. It is possible to tamper with the database of considerable opportunities. In the present system there is no such application level system provisions in the country to carry out the voting and procedure as a whole. Also in the present status, there is no such application in use for automated system for voting according to the voting structure existing in the country. All the step by step procedures are carried out by the authorized authorities according to the jobs assigned by the ECI. The fact is all the procedures are carried out manually, starting from the registration process to result declaring.

KEYWORDS: Security and Protection, Hardware, Online Information Services

I. INTRODUCTION

Lately, electronic voting systems have been used in many countries. Estonia was the first in the world to adopt an electronic voting system for its national elections [1]. Soon after, electronic voting was adopted by Switzerland for its state-wide elections [2], and by Norway for its council election [3]. For an electronic voting system to challenge with the traditional voting system, it has to support the same criteria the traditional system supports, such as security and anonymity. An e-Voting system has to have heightened security in order to make sure it is available to voters but protected against outside affect changing votes from being cast, or keep a voter's ballot from being interfered. Many electronic voting systems rely on Tor to hide the identity of voters [4]. However, this technique does not provide total integrity since many intelligence agencies around the world control several parts of the Internet which can allow them to identify or intercept votes. India is a constitutional democracy having a parliamentary system of government, and the main thing of the system is a commitment to hold regular, free and fair elections. These elections determine the composition of the government, the membership of the two houses of parliament, one is the state and union territory legislative assemblies, and the other one is the Presidency and the vice-presidency. The aim of the project is to create and manage polling and election details. This is a system which enables all citizens to cast their vote online. Increasing the voting percentage across the country is the major goal of this project. This system is online and hence even people who live out of their home town can also vote. Database of all the eligible citizens and candidates are maintained by the system.

II. LITERATURE SURVEY

Progressively digital technology in the present helped many people lives. Unlike the electoral system, there are many current uses of paper in its implementation. The aspect of security and transparency is a threat from still widespread election with the conventional system (offline).Block chain technology is one of solutions, because it embraces a decentralized system and the entire database are owned by many users.[1]

Bit coin introduces a revolutionary decentralized consensus mechanism. However, Bit coin-derived consensus

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mechanisms applied to public block chain are inadequate for the deployment scenarios of budding consortium block chain. We propose a new consensus algorithm, Proof of Vote (POV). The former guarantees the separation of voting right and executive right, which enhance the independence of bulter's role, so does the internal control system within the consortium . As for the latter, under the circumstance that at least $Nc/2+1$ commissioners are working effectively, our analysis shows that POV can guarantee the security, transaction ? [2]

There is no doubt that the revolutionary concept of the blockchain, which is the underlying technology behind the famous vital currency Bitcoin, is triggering the start of a new era in the Internet and the online services. In this, we have implemented a sample e-voting application as a smart contract for the Ethereum network using the Solidity language.[3]

Block chain was first introduced by Satoshi Nakamoto , who outlined a peer to-peer payment system that allows cash transactions through the Internet without believing on trust or the need for a financial institution. Block chain is secure by design, and an example of a system with a high byzantine failure tolerance.[4].

Proof of stake protocol of block verification does not rely on excessive computations. It has been implemented for Ethereum and certain altcoins. Instead of splitting blocks across commensurable to the relative hash rates of miners , proof-of-stake protocols split stake blocks proportionally to the current wealth of miners. The idea behind Proof of Stake is that it may be more difficult for miners to acquire sufficiently large amount of digital currency than to acquire sufficiently powerful computing equipment.[5]

E-voting is a potential solution to the lack of interest in voting amongst the young tech savvy population. For e-voting to become more open, transparent, and independently auditable, a potential solution would be base it on block chain technology. Block chain technology has a lot of promise; however, in its current state it might not reach its full potential.[6]

III. PROBLEM STATEMENT

The new implemented voting protocol has two main players: The voter and administrator sections. The voter(which can be found at home, in a working station, in a special polling station or any other device have the function of performing the Authentication and voting). The administrator performs the function of voter and candidate registration, authorization and validation of voter, database and counting and the result.

IV. SYSTEM ARCHITECTURE

In this paper, Working of this Biometric Voting System for Election is a little bit complex for beginners. First of all, user needs to enroll their id by the IR3 fingerprint scanner. To do this user need to place the finger on the fingerprint module inorder to generate the unique id of the voter. After selecting ID user needs to press an OK key . Now fingerprint scanner will ask for placing finger over the finger print module. Now user needs to put his finger on the finger print module. Then LCD will ask to remove the finger from finger print module and again ask for placing the finger. Now user needs to put his finger again on to the finger print module. Now finger print module takes an image and converts it into templates and stores it by selected ID in to the finger print module's memory. Now voter will be registered and he/she can vote. By same method all the voter can be registered into the system.

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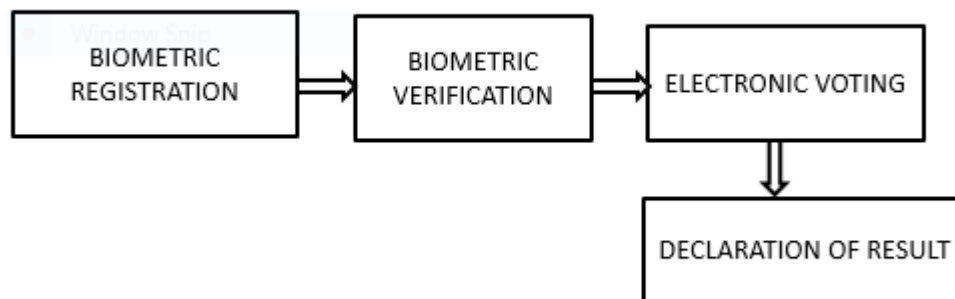


Figure. System architecture

V. ADVANTAGES

- **Planned access towards working:** - The working in the organization will be well planned and organized. The data will be stored properly in data stores, which will help in extraction of information as well as its storage.
- **Accurateness:** - The level of accuracy in the proposed system will be higher. All operation would be done correctly and it ensures that whatever information is coming from the center is accurate.
- **Security:** - The security of the proposed system will be high due to the above stated reasons. The reason for the increased authenticity of the system is that now there would be proper storage of information.

VI. APPLICATIONS

- Loksabha constituency
- Panchayat wards

VII. CONCLUSION AND FUTURE WORK

In this Paper Online Voting system will manage the Voter's information by which voter can login and use his voting rights. The system will integrate all features of voting system. Its provide the tools for maintaining voter's vote to every party and it count total no. of votes of every party. There is a DATABASE which is maintained by the ELECTION COMMISSION OF INDIA in which all the names of voter with all over information is stored. In this user who is above 18 year's register his/her information on the database and when he/she want to vote he/she has to login by his id and password and can vote to any party only single time. Voting detail store in database and the result is displayed by calculation. By online voting system percentage of voting is expanded. It decreases the cost and time of voting process. It is very easy to use and it is vary less time consuming. It is very easy to debug.

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