

ONLINE VOTING SYSTEM

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Abstract : The project is considerably concentrated at preparing a secured and accessible Online Voting System. The difficulty of voting is still analytic in respect of protection and security. The evolution in the web technologies given expansion to the new application that will make the voting process very simple and proficient. The proposed online voting system helps the voter to cast their vote without going to the polling booth. The application provides validation in order to avert fraud users using the OTP (one time password). This system deals with the design and development of a web-based voting system using Aadhar card in order to provide a high performance and efficiency with high security to the voting system. The proposed system is to evolve a adaptable voting system with high security by using Block-chain technology in order to increase security and clarity between the users.

Keywords – Electronic Voting System, Voter ID, Aadhaar card number ,Security, Block Chain, Vote.

I. INTRODUCTION

Modern societies are based on ballots or electronic votes (e-voting). In recent years, voter apathy has increased, particularly among the younger generations of computers and technology. E-voting is promoted as a future alternative for young people. For a robust electronic voting system, a number of practical and security requirements are identified including transparency, accuracy, auditability, systems, and data integrity, confidentiality, availability, and delivery of authority. Block chain technology supports a distributed network of several interconnected nodes. Each node has a separate copy of the distributed directory that contains the whole history of all network transactions. There is no single authority regulating the network. If the majority of nodes consent, they approve the contract. This network will keep users anonymous. A fundamental study of block-chain technologies demonstrates that e-voting should be carried out appropriately and e-voting can be acceptable and efficient.

II. LITRETURE SURVEY

This paper [1] proposes a consistent method of voting with rapid votes via a biometric voting system based on RFID. There are two authentication actions in this manual. The data in LPC 2148 are contained first of all with an RFID tag. The second is to verify whether RFID belongs to the user with a fingerprint scanner or not. Based on the RFID protocol the disadvantage of this paper is maximized.

This paper uses a UIDAI QR code [2] card issued by Aadhaar. Install voting data on a stable server instead of an offline mode online. After you enter your user id and password, the findings will be seen by the admin.

This [3] method is a smart voting technology that enables all INDIA voters from their nearest polling stations to vote for INDIA. The procedure is a fingerprint identification technology. Create a secure, smart biometric voting infrastructure. provides a secure voting process in the suburban constituencies for voters from all parts of India from the nearest polling station without neglecting to vote.

This paper[4] proposes a system of secure voting that prohibits fraud. Biometrics are used to authenticate a person and validate the elector's ability. The details in the adhaar card are the main authentication and conformation criteria. Biometrics such as fingerprint are provided for protection. As a guide you can authenticate the data in the Aadhaar fingerprint at voting time.

The standard machine [5] now used is automatically checked with delays, such as multiple ballot castings by a single member and voting invalidity. The intelligent and fingerprints are automatically analyzed to eliminate these disadvantages by casting a mere number of votes.

The feasibilities of a publicly available crypto-system E-Voting Protocol were seen in this paper [6]. The security of the proposed e-voting is based on the public encryption RSA protocol. It allows the voter to vote on a mobile computer without any extra costs and commitments (PC). This is implemented to replace the previously inefficient electoral system, since voters are guaranteed to count their ballots.

This system[7] provides some form of defense from threats, because polling from voting customers to voting servers takes place. The attacks include passive as well as active safety risks for intruders. When we use the logo or image of the elector's face to match photos stored in our files, it's better to authenticate electors rather than USERNAME.

This paper uses a block-chain voting system[8]. It takes time to popularize block chains in a voting system because it is a new idea, and voting for yourself is a critical question in a democratic environment.

The proposed model [9] is secure than other models and can be used in major elections on a wide scale. Once the NCVVS system has been voted on, a confirmatory federprint email will be sent to voters that is established by the standard SHA feature (including referendum fingerprint) (256).

The suggested work [10] is based on an architecture for block chains which eliminates all risks from communication. It is a decentralized architecture that includes a hacking and encryption security concept

III. EXISTING SYSTEM LIMITATIONS

A lot of work has been done in this area. Some of the approaches implemented for the same purpose are discussed in this section. These works are distinguished mainly from the E-voting system algorithm.

The current machine had safety hazards that may undermine the electoral process. As well as human error, Internet e-voting is subject to a range of threats such as domestic and international saboteurs hacking, technical failures, electoral impersonation and even system failures.

IV. ALGORITHM

4.1. ECC (elliptic curve cryptography)Encryption Algorithm

- Elliptic Curve Cryptography (ECC) is an approach to public-key cryptography, based on the algebraic structure of elliptic curves over finite fields.
- ECC requires a smaller key as compared to non-ECC cryptography to provide equivalent security (a 256-bit ECC security have an equivalent security attained by 3072-bit RSA cryptography).
- For a better understanding of Elliptic Curve Cryptography, it is very important to understand the basics of Elliptic Curve.
- An elliptic curve is a planar algebraic curve defined by an equation of the form

V. ACKNOWLEDGMENT

This paper describes an electronic voting system which offers secrecy, authentication, auditability, security, double voting prevention and a judiciary system by authenticating voting options for online voters and systems of public opinion.

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