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Online Voting System

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Abstract: ***The project "Online Election System" / "Online Voting Software" aims at making the voting process easy in any type of elections. Presently voting is performed using ballot paper and the counting is done manually, hence it consumes a lot of time. There can be possibility of invalid votes. All these make election a tedious task.***

In recent times in India, due to elections the second wave of COVID transmission also made huge loss of human lives. In our proposed system voting and counting is done with the help of computer in Online. It saves time, avoid error in counting and there will be no invalid votes. It makes the election process easy. It also avoids the process of physical touching or visiting any places and so in the time of pandemic too it will be more helpful to conduct elections. The system deals with the online voting and its details. Allows the user to vote for the candidate online. Can get the details of the candidate and voter as well. Without the wastage of time the citizen can vote the respective candidate.

In present existing system we are using ballot paper and counting the number of votes, it takes the lot of time to for the existing process, to overcome the drawbacks in the existing system this particular system was proposed to mark our work much easier and to reduce wastage of time. And more over we doesn't gets the accurate results in the present existing system. So there is a need for Online Voting Systems.

Keywords: Key Generator, Secret Password, Party Name, Verification, Vote Online.

I. INTRODUCTION

" ONLINE VOTING SYSTEM " is an online voting technique. In this system, authorized voters can give his\her vote online without going to any physical polling station. A database is maintained in which all the names of voters with complete information are stored. Online Election System would have Candidate registration, document verification, autogenerated User ID and pass for candidate and Voters. Admin Login which will be handled by Election Commission . Candidate Login which will be handled By Candidate, Voters will get Unique ID and Password, Using which they can vote for a Candidate only once per Election. The project is beneficial for Election Commission, Voters as the can get to know the candidate background and choose wisely, and even for Candidate. The software system allows the Candidate to login in to their profiles and upload all their details including their previous milestone onto the system. The admin can check each Candidate details and verify the documents, only after verifying Candidate's ID and Password will be generated, and can remove faulty accounts. The software system allows Voters to view a list of Candidates in their area. The admin has overall rights over the system and can moderate and delete any details not pertaining to Election Rules.

II. LITERATURE REVIEW

Phish-haven-An Efficiency Real-Time AI Phishing URLs Detection System: IEEE, newspapers, 2020; This article changed phishing URLs generated by AI, machine learning, phishing URLs created by people, lexical features, multi- threads, HTML URL encoding. Extracts web page content which is therefore ineffective in computation. Non- proactive method Needs source codes or the website's entire website content. The use of multiple threading technologies on an input unit and output unit may be further enhanced by the incorporation of unattended learning.

SeVEP: Electronic polling system secure and verifiable: 2019 IEEE, journals, Authentication modified, efficiency, electronic polling, malware, security, compliance. Authentication, electronic polling process has resource allocation polling system. Developing a working SeVEP prototype and assessing its scalability and usability for real-world use.

Towards Developing a Secure and Robust Solution for E-Voting using Block-chain: 2019 IEEE, Spring, This paper modified coercion resistance problem, Blockchain, Online Voting process, Developing a Secure Solution for online Election process information and To solve coercion resistance problem to solve using cryptographic algorithms.

End to End Verifiable Electronic Voting System for Shareholders: IEEE 2019, newspaper, this article amended Electronic vote, voting by shareholders, verification end-to- end, zero evidence of knowledge, Decision Diffuse the assumption by Hellman, safety evidence and verifiable electoral process. More generally, voters can leave and leave dynamically within calculation periods if using a smartphone.

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III. METHOD

A. Describing the Method of Data Analysis

The rapid development of technologies and Internet popularity lead to the digitization of diverse types of technology, such as electronic commerce, e-democracy, e- government, etc.

To minimize costs and red tape in public departments, the contemporary states are seeking to provide people who can participate and benefit from online services by increasing the number of activities associated with this new medium. Electronic voting is one of the most important

Internet-related activities. The modern recently We consider the same methodology as the one

we discussed for estimating the operating machine cycles (for example, private and public operations based on Salsa20 algorithm, operations on elliptic curve and pairing).

For example, (1) use of electronic voting can reduce or eliminate undesirable human errors, (2) in addition to its reliability, the online voting system does not need geographical proximity of voters which increase the number of participating voters, (3) e-voting saves a lot of time for voters and reduce a cost when counting the voted ballots.

What approach is taken by the author

Once all the nodes of the network are running, a new user can connect to the server. The user registers a non-anonymous user (using Adhar Card, phone, password, etc), and performs the login. The user produces an RSA key pair locally (private key & public key). With the PublicKey server, the user blinds his public key. The public key of the user is blinded and forwarded to the server.

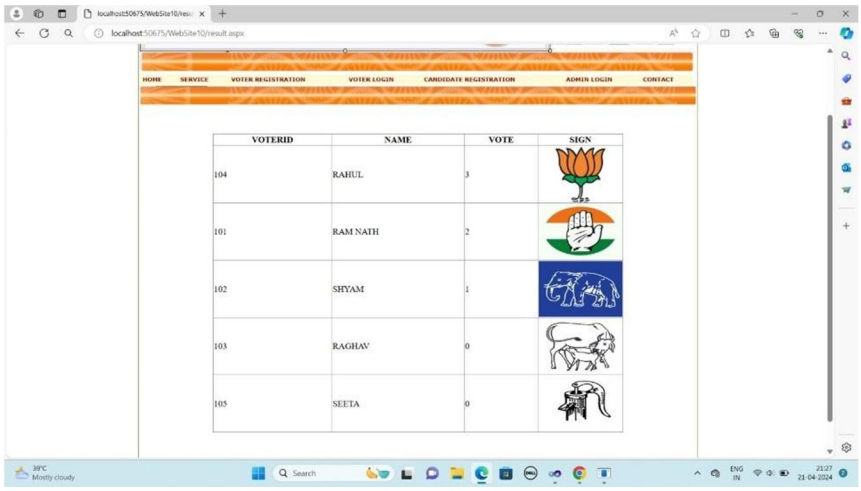
The server Blind Signs the Public-Key blinded from the user and returns it to the user. The user unbinds the Public-Key signed by the server, and now has the Public-Key Blind Signed by the server. The user sends the Public-Key blind signed to the p2p network. The peers verify that the Public- Key Blind Signed is correctly signed by the server, if it is, they add the Public-Key to the Ethereum Blockchain, inside a new block.

Our approach

As per recent research RSA method to secure data with blind signature has some flaws and can be cracked using high-end computational devices. So we will be using a more secure Salsa20 security algorithm which is found more to be more secure than an existing algorithm like RSA and AES. Also, Salsa20 is more FAST and lightweight than RSA and AES. Salsa20 is FAST in terms of encrypting and decrypting. This means it can encrypt more messages per cycle compare to RSA and AES. Also, it is lightweight means it requires less computational resources compared to others. Despite such benefits, Salsa20 provides better security.

IV. RESULT AND SCREENSHOT







V. CONCLUSION

This system offers more safety and takes a while. There is also no chance of voting fraud. There is a significant reduction in the money spent on security. This method aims primarily to provide full privacy to voters and to ensure that the online voting system is coordinated optimally. The fundamental idea of this system is to use a strong voting authentication security mechanism. Visual encryption encrypts information and can decrypt it without mathematical calculations. People with an internet connection at home can vote at the polls without any problems.

Visual cryptography is used to conduct elections fairly easily and efficiently using these internet-based voting systems since voters can vote from the point of view in which they operate using the online voting system. Various advantages include low costs and increased voting attendance online voting. Online voting offers This online voting system takes careful account of safety and human factors, and in particular, ensures that the electorate has reliable and intuitive indications on the validity of the vote. The system we proposed to provide voters with mutual authentication and choosing with visual encryption.

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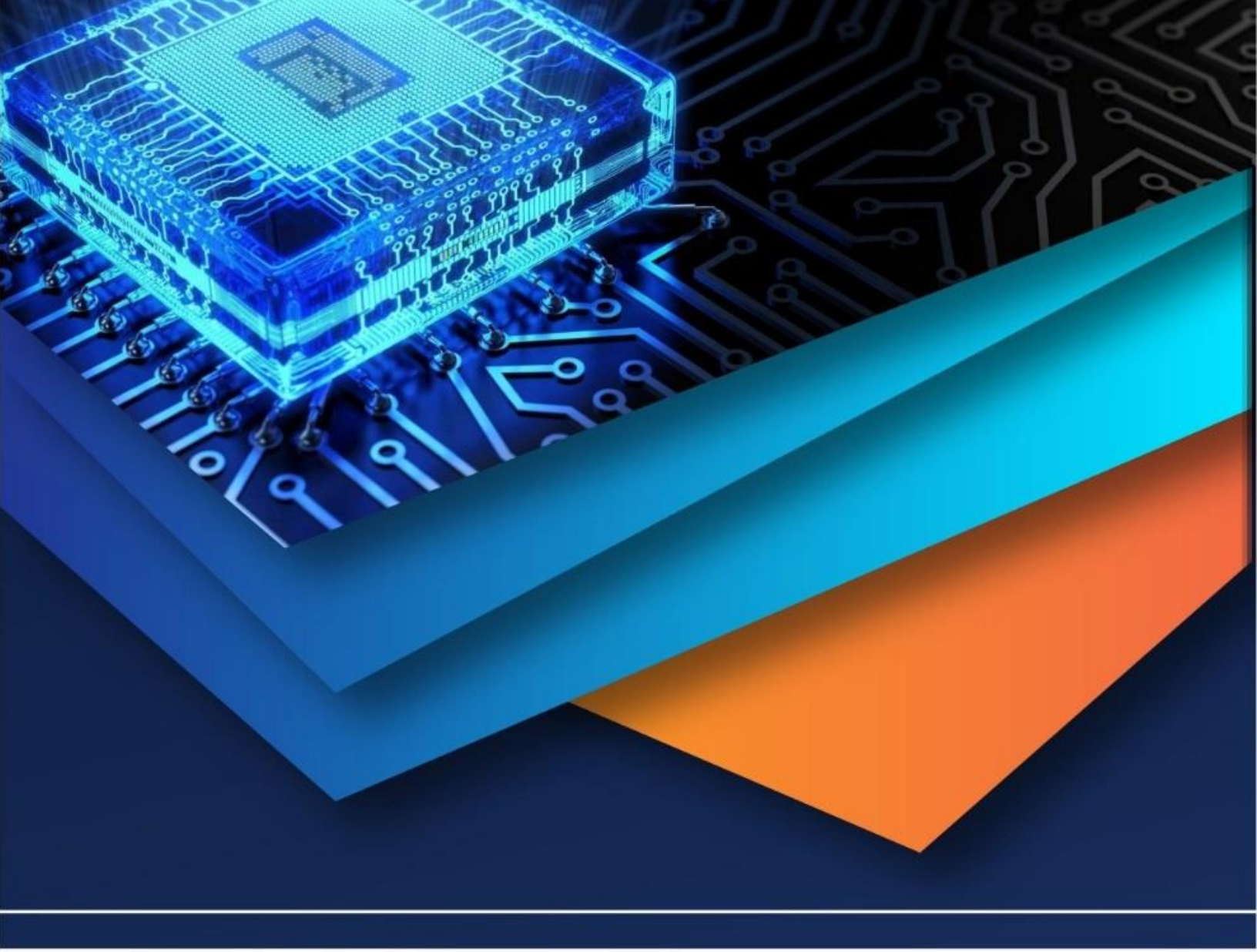

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