



Online E-Voting System Using Android Application.

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Abstract : The development in the web technologies given growth to the new application that will make the voting process very easy and convenient. The E-voting helps in providing convenient, capture and count the votes in an election. This project provides the description about e-voting using an Android platform. The proposed e-voting system helps the user to cast the vote without visiting the polling booth. The development in the web technologies given growth to the new application that will make the voting process very easy. The E- voting helps in providing convenient, capture and count the votes in an election. This project provides the description about e-voting using an Android platform using Android Application. The proposed e-voting system helps the user to cast the vote without visiting the polling booth. The proposed e-voting system helps the user to cast the vote without visiting the polling booth the proposed Online Voting System allows the voters to scan their fingerprint, which is then matched with an already saved image within a database that is retrieved from aadhaar card database of the government.

Keywords – Biometric, Aadhaar card, Authentication, E-voting,

I. INTRODUCTION

Voting is an important right for every citizen in democratic country. Traditional methodology of voting requires more time and wastage of paper. The strategy and functioning of Esmart voting system (ESVS) which is highly secure, biometric authentication system along with OTP based verification system to improve the voting process during election. Further, the vote casted by a user is encrypted before storing in database. ESVS utilizes Aadhar number of user for identification and verification of voter. With smart voting system, voter can cast their vote with mobile phone and avoid all kind of queues at polling booth. The ESVS utilizes the Aadhar number to authenticate the user through OTP, which will be received on their registered Aadhar linked mobile number. Smart Voting System successfully allows people to vote using smart phones thus reduces the queues piled up at polling booth. Electronic voting has been appealing a lot of responsiveness and research for the last few years, for it has some notable benefits over traditional paper-based voting. This paper represents the voting system transformation by developing a mobile phone voting and an application.

II. LITERATURE SURVEY

1. Paper Name: E-Voting System in Smart Phone

Authors: G. Kalaiyarasi, K. Balaji, T. Narmadha, V.Naveen

Basic Concept: Electronic voting has been appealing a lot of responsiveness and research for the last few years, for it has some notable benefits over traditional paper-based voting. Mobile voting which is a subgroup of electronic voting, is uninterruptedly gaining fame as it provides an efficient, effective, error free and time saving voting platform.

2. Paper Name: E-Voting System Using Blockchain

Authors: Kanika Garg, Pavi Saraswat, Sachin Bisht, Sahil Kr. Aggarwal, Sai Krishna Kothuri, Sahil Gupta **Basic**

Concept: Voting is a very crucial part of any election or decisive process. Not only, has it showed the power of individual right but also their concern on the topic. Currently, various researches are conducting in order to make secure and reliable voting system while tackling issues of anonymity, fairness, reliability, and availability. With Block chain, the focus is on making the Voting Process fair and without any third party intervention.

3. Paper Name: E-Voting System with Secure Data Identification using Cryptography

Authors: Amish Bansal, Vaibhavi Pujari, Utkarsh Raina, Roushan Kumar

Basic Concept: To avoid problem faced in conventional voting system, there is a need for intelligent voting system that identifies and verify voter's credentials online thereby allowing them to vote from anywhere. Using ESVS (Esmart Voting System) people can vote with an app installed on their smart phone.

III. PROBLEM STATEMENT

Because of this pandemic to avoid, crowd and maintaining social distancing E-Voting system is much easier to vote. It offers the facility of online voting and saves individuals time while standing in the queue.

IV. EXISTING SYSTEM

In the present system there are not any such application level system provisions within the country to hold out the voting and procedure as an entire. Also within the present status, there's no such application in use for automated system for voting consistent with the voting structure existing within the country. All the step by step procedures are administered by the authorized authorities with the roles assigned by the Election Commission of India. All the process starting from registration to result publishing are done manually. The government on doing this process manually wastes lots of time and money. Thus the current system proves itself to be an inefficient one. The prevailing system isn't mobile based. The user or voter must want to travel to the polling place for casting their votes. The government on doing this process manually wastes lots of time and money. Thus the current system proves itself to be an inefficient one. The prevailing system isn't mobile based. The user or voter must want to travel to the polling place for casting their votes.

V. PROPOSED SYSTEM

Our E-voting system is an android application developed using Android studio. Proposed system gives a better solution of security by using biometric authentication system and face recognition or face identification system. It present high security through authenticating a voter and also maintain the privacy by encrypting the casted vote. It offer facility of online voting and saves individuals time while standing in the queue. It also helpful for avoiding crowd and maintaining social distancing.

VI. FRONT VIEW

Introduction of XML

Extensible Markup Language (XML) is a markup language that defines a set of rules for encoding documents in a format that is both human-readable and machine-readable. The design goals of XML focus on simplicity, generality, and usability across the Internet.

It is a textual data format with strong support via Unicode for different human languages.

Although the design of XML focuses on documents, the language is widely used for the representation of arbitrary data structures such as those used in web services.

1. XML stands for extensible Markup Language
2. XML is a markup language like [HTML](#)
3. XML is designed to store and transport data
4. XML is designed to be self-description

VII. BACK END

FireBase

Firestore is a mobile and web app development platform that provides developers with a plethora of tools and services to help them develop high-quality apps, grow their user base, and earn more profit.

The Firestore Realtime Database is a cloud-hosted NoSQL database that lets you store and sync between your users in realtime.

The Realtime Database is really just one big JSON object that the developers can manage in realtime.

VIII. Firebase ML Kit

[Firebase ML Kit](#) was introduced to us at Google I/O '18. It is a mobile SDK that enables Android and iOS app developers to have advanced machine learning capabilities into their apps with ease.

ML Kit APIs works both on the device and on the cloud. The on-device APIs are designed to work fast with no internet connection.

On the other hand, cloud-based APIs uses Google Cloud Platform's machine learning technology which gives more accurate results but requires an internet connection.

XI. CONCLUSION

The percentage of people those who cast votes are increased since this E-Voting application is available in the play store so that they no need to travel for casting the votes, which is registered in their native. It offers the facility of online voting and saves individuals time while standing in the queue. The transportation charge will be decreased for carrying the Electronic voting machine to pooling booths. To avoid crowd in this pandemic E-Voting system is much more important.

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REFERENCE

- [1] G. Kalaiyarasi, K. Balaji, T. Narmadha, V.Naveen, "E-Voting System in Smart Phone" 2020 6th International Conference on Advanced Computing and Communication Systems (ICACCS)
- [2] Kanika Garg, Pavi Saraswat, Sachin Bisht, Sahil Kr. Aggarwal, Sai Krishna Kothuri, Sahil Gupta "E-Voting System Using Blockchain" 2019 IEEE
- [3] Amish Bansal, Vaibhavi Pujari, Utkarsh Raina, Roushan Kumar "E-Voting System with Secure Data Identification using Cryptography" 2019 3rd International Conference for Convergence in Technology (I2CT)
- [4] Mr. Bhushan Borhade "Ensuring static data integrity on OODB transaction" DOI: 10.1109/ICCUBEA.2016.7860011