A Survey on Android and Web Based Application for Online Voting

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ABSTRACT: Voting is essential for modern democratic societies. It is becoming very important to make the voting process more easy and efficient. Android and web based application for online voting should be technically implemented in such a way that ensures authenticate user requirements. The proposed system is implemented to allow each and every voter to actively participate in the election process. This is done by the android application which will accept the votes of different voters using the application. Online voting through android and web based application will make the voting process reliable and more efficient. This system allows each and every voter to actively participate so that they can get familiar with the candidates and select the appropriate Candidates. The aim is to provide convenient, easy and safe way to capture and count the votes in elections-voting can be a cost effective way for conducting a voting procedure and for attracting voters to participate and also provides the facility of interaction between the voters and the candidates. The main goal of the project is to denote a voting process, which enables voters to cast a secure and secret ballot over a network as the traditional voting process is time consuming and prone to security breaches.

KEYWORDS: Electronic voting, Secured voting, android, information societies, elections, democratic societies

I. INTRODUCTION

In recent years, governments have begun to introduce modern technology into their voting procedures. Android based voting is one of the most significant parts of democracy, which refers to the use of computers for voting process to cast votes in an election. Android based voting aims at increasing speed, reducing cost and improving the accuracy of the results rather than traditional paper based voting. An Android based voting system creates and manages data security so it must agreed on security such as confidentiality, integrity, privacy and verifiability. There are a number of voting systems existing all over the world with each of them having its specific Advantages and disadvantages. The traditional methodologies are no longer used due to the long period of preparation, fake voting, faulty voting, due to mistakes made during vote count, long period of counting and cost effective of voting process. In contradiction with this, the manual voting systems still appears prominent among the developed and developing nations. In some countries, conceive introduced manipulations of the votes take place to divert the results of an election in favors of certain candidates.Android based voting is an interdisciplinary subject and should be studied together with the experts in different domains, such as engineering, cryptography, politics, law, economics and social science. Nevertheless, people from different backgrounds have worked on this subject, mostly Android based voting is known as a challenging pont in cryptography because of the need to get voter anonymity and therefore, to ensure privacy.

II.   LITERATURE REVIEW

Sr. No.	AUTHOR	TITLE	PUBLISH YEAR	SUMMARY
1.	Ashwini Ashok Mandavkar Prof.Rohini Vijay Agawane	Mobile based facial recognition using otp verification for voting system	2015	Biometric identification of voter by using "face recognition" and "otp" of each individual voter for validation and authorization purpose.
2.	Daniel Petcu. Dan Alexandra Stoichecu.	A hybrid mobile biometric –based e-voting system	2015	Applying several techniques to identify voter through finger print scanning, voice recognition, OTP checks, phone number verification which ensures high security for voting system.
3.	Jan Lang. Rastislav Kostrab.	Event based application of voting system for mobile devices.	2015	An objective was to focus on implementing mobile voting application for measuring the cognitive competencies of social group, particularly in the field of education.
4.	Thakur S. Olugbara O. Millham R.	Transforming voting paradigm – the shift from inline through online to mobile voting.	2014	A model for m-voting that utilizes biometric (voice recognition), nfc (used to store secret question and answer), mobile phone and location based technology. "bring your own devices" concept introduced.
5.	S.B. Hargavi.	Election voting system using mobile (m-voting).	2013	Biometric identification of voter by using "iris pattern scanning" and "otp" of each individual voter for validation and authorization purpose.

III.   EXISTING SYSTEM

Now a day performing voting process electronic voting machine (EVM) is used. In a present election system, all constituencies are given an electronic machine. The machine stores the votes of the people how have they voted for the particular candidate. Control of present system is given to the respective officer. He checks for the eligibility criteria of the candidates then allow for the voting. Finally collection of all the voting machines takes place and goes for counting.

PROBLEMS WITH EXISTING (PRESENT) SYSTEM

- Machine can be easily **DAMAGED**.

- Cannot check **ELIGIBILITY** of Voter.

- Installation of Individual machine set & Transportation is More **TIME CONSUMING.**

- Cost of complete system is very **HIGH**.

- The voting take place where Machine is **LOCATED**.

- Possibility of **Re-Election** is more.

IV.   PROPOSED SYSTEM

"ANDROID & WEB BASED APPLICATION FOR ONLINE VOTING SYSTEM" is an online voting technique. In this system a person whose age is above 18 years of age can give vote online at voting polling station. There is a database which maintains all the names of voters with complete information are stored.

In this a voter can use his voting right online without any difficulty. He\She has to be registered first for him/her to vote. The database of registered voters is already ready. We have not added registration field in this project. The voter is identified by fingerprint bio-metric scanner with which voter can use to log into the system and enjoy services provided by the system such as voting.
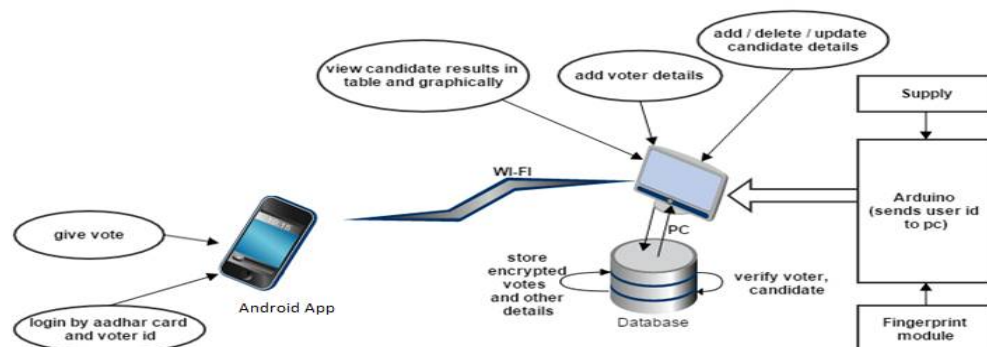

Fig: ARCHITECTURE OF PROPOSE MODEL

V.   RELATED WORK

Hu Meida, Wang Chushan, Teng Guifa and Gao Guandong:

A mobile terminal voting system based on android platform is presented and implemented to solve the problems of traditional and e-voting system in this paper. Joining the static-password and the dynamic-password technique, double-identity authentication scheme is presented based on the symmetric algorithm, which carry challenge-response protocol weakness. It achieves double identity authentication, avoids replay attack. Analysis results specify that the proposed scheme provided higher efficiency compared to the present system in the network environment, and improves the security of the mobile terminal voting system [15].

Shafi'í Muhammad Abdulhamid, Olawale Surajudeen Adebayo, Damian Oshomah Ugiomoh and Mohammed Danlami AbdulMalik:

It introduce biometric fingerprint and PVID (pseudo voter identities) encryption scheme for each voter during voter registration through online or data mining of voters data containing fingerprint biometrics. Furthermore, fingerprint reader and RSA public key symmetric algorithm is used in pseudo voter identities to eliminate counting impersonated votes [6].

Jose M. Inesta and Juan Ramon Rico-Juan:

In order to better performance, weighted voting-based ensembles of the verification system were constructed. A number of techniques for offline signature shape feature extraction from a binary image have been described. For an individual signature verification systems (SVS) based on Euclidean metrics each set of features were used. Posterior probability estimation has been proposed in order to normalize the confidences provided for each verification system in the voting stage. This approach has proved to reduce the final EER significantly. Also consistent improvements have been found by using ROC curves. This expert combination approach is planned for different databases in the future with a purpose to discover its robustness in other scenario and how it performs when weighted decisions are used. In addition, we will discover its capabilities when deals with other kind of data in the biometric recognition field [7].

Donovan Gentles and Dr. Suresh Sankaranarayanan:

They have come with Biometric secured mobile voting technique that will address these issues. Using fingerprint based biometric control information and encryption along with SSL (Secure Socket Layer) using VeriSign would enable the software involved in the voting process well secured [17].

VI.   CONCLUSION

   Proposed voting system will manage the voter's information by which voter can login and use his voting rights. There is a database which is maintained by the election commission of India in which all the names of voter with complete information is stored. By online voting system percentage of voting is increases. It decreases the cost and time of voting process. It is very easy to use and it is very less time consuming. Working on Android and Web Based Application for Online Voting System from observations of present system begins. Considering the drawbacks of present system by some issues like security, efficiency, robustness, flexibility, and data integrity. For making voting process secure than present system we have studied papers about biometric authentication where different methods determined in different paper for identifying voters.

VII. FUTURE SCOPE

The future scope of the project includes the improvement in the security level of the complete system. In addition to that it would be necessary to meet some other confidential primitives to improve the security level of online voting system. The future improvement can also be done for voice verification, system crash and power failure so that the voters can vote with more assurance.

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