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Online Voting System Using Visual Cryptography and Face Detection- A Survey

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Abstract: The traditional approach was that one need to go to the voting centre and cast their vote. People from various places who don't possess voting cards cannot cast their votes. Also identification of the voters was poor and not correct. There was a bunch of manual work in the existing voting system which was very time consuming process. Therefore, there is need of the new system which will eliminate the efforts needed in the existing voting process provide the strong security as well. In this paper, we compared all the existing systems for E-Voting system, have discussed the technique used in each of the mechanism and the limitations of the same. To overcome the drawbacks in the existing systems, we have proposed one advanced mechanism which will use the collaborative approach of Face Detection and visual cryptography, to provide more appropriate online voting system, through which the voting system will be more efficient, user friendly and will have higher security.
Keywords: - Online voting, visual cryptography, face detection.

I. INTRODUCTION

One of the most important features of democracy that is very common to all people of various types is the act of election. Liberal government thus encourages individual freedom according to the law, so that people may express themselves as they choose. This not only gives a chance to choose their leaders, but also to express their ideas on issues. In response to the 1948 Universal Declaration of Human Rights which set import on the necessity of free elections, nations aim at new and improved voting procedures which are of importance to elections in the 21st century. With the passage of time, election, which was mainly manual, has been turned by Information Technology, with debates arising about the importance or not, of computerized/E-voting. Nevertheless, it is not possible to completely rule out the need for technology and online voting, with the increasing number of eligible voters and manual ballot

papers involved. The electronic voting is the next logical step in online information-gathering and retrieval technologies to e-government. In With traditional voting, most people are in favor to accept this because they believe the poll workers are trustworthy.

Ballot system is the traditional voting system where voters put their votes using ballot papers in view to express their suspicion for a appropriate candidate during voting activities. The result of ballot system of voting are recorded, arranged and displayed in screen during examination to demonstrate transparency. This existing method is always associated with several misleading issues such as privacy-breach, unauthorized vote casting, distortion of results, election disturbance, ballot snatching, impersonation and invalid votes, Nevertheless, any election system. Designed to effectively and efficiently execute voting activities must fulfill some specific criteria with which the system will be estimated. The election system must be secure enough to guarantee a guarded election, protect vote integrity and confidentiality to check out a free, fair and credible election.

II. EXISTING ONLINE VOTING TECHNIQUES

A. Online voting system using fingerprint detection.

Fingerprint detection is one of the most famous and positive biometric method used for automatic personal identification [5]. There are two basic stages during the use of fingerprints detection, verification of fingerprint and identification of fingerprint. While the goal of fingerprint detection is to justify the particularity of a person, the aim of fingerprint detection is to establish the identity of a person. The above paper mentioned the Fingerprint biometric is the most widely deployed widely known biometrics for identification. This is mostly due to its simple and cost effective synthesis in traditional and forthcoming technologies. The synthesis of biometric with online voting machine undoubtedly requires minimum work force, save more time of voters and personnel, discard equipment, ensure efficiency, clarity and quick results in election.The fingerprint mechanism wasn't that much popular as

there is need of fingerprint detection device so extra hardware for biometric authentication was required and that's not feasible for all the users to carry that. So this system is not possible to implement practically for bulk group of users.

B. Online Voting System Using Encryption And Digital

1) Signature

Technology molds the life style of human in advocate manner. We prefer reducing power and time in all our chores [7]. One of the systems used majorly for this purpose is ON-LINE in which security is the major issue. This paper provides a secure approach for online voting system using the consideration of encryption and digital signature. This paper has implemented the concept of AES and RSA algorithm.

The security mechanism used in above paper were good and provided secured online voting but security algorithms tends to be braked, and the above system was too much time consuming mechanism, took extra time to complete the process, that's the reason this mechanism was not also popular and feasible.

C. Online voting system using android.

The given new projected system has an application which is developed for android mobile through which the voter can cast his or her vote from anywhere on the face of the globe [8]. The user can registers by providing his personal details and the photograph of his face which gets stored in the database available at the middle most side. When the election date is fixed the voter gets notifications on his or her android mobile via GCM (Google Cloud Messaging). After that voter open the application then the face authentication [9] is done at server side using the OTP. If the voter is valid voter then OTP is send to the voter's mail address. Using OTP voter opens the voting form then he or she puts their vote and then click on submit button and then logout.

D. Online voting system using visual cryptography.

(VC) is a secret sharing scheme in which an image is converted into shares. No information can be exposed by observing any share (Black & White dotted Image) [1][2]. The information about the original photocopy (Voter Password) will be acknowledged only after stacking sufficient number of shares. There are various techniques available in VC, 2 out of 2, k out of n, n out of n, etc. In the proposed method, IVS with 2-out-of-2 VC has been used for an effective authentication election system. Even if the hacker gets one share of the password, it is not possible to access the other share of the password, as it will be sent to the E-Mail Id of the voter.[3]

III. CONCLUSION

This system is designed for election commissions to conduct their elections using latest technologies which are available in the market, usage of latest technology will help in improving the voting count, and will reduce the efforts required to conduct any election. This will be the most efficient and secured mechanism through which one can easily conduct the relation by using online voting system .The system we proposed uses visual cryptography to provide mutual authentication for voters and election servers. Propose the Online Voting System using face match Recognition. The projected system has provided an effective way to cast votes, scam free, and make the system more trustworthy, economic and fast.

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