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Digital Mathdaan Pranalee

Princy P, Priyadharshini M, Ramyapreethi M, Suganyadevi K
Department of ECE, Sri Eshwar College of Engineering, Coimbatore, Tamilnadu, India

ABSTRACT

In electronic voting system, we have simple display, manual method for checking voter details and counting results. It requires human participation, in tallying the votes that makes the elections time consuming and prone to human error. The voter finds the event boring resulting to a small number of voters. Deceitful election mechanism. Constant spending funds for the elections staff are provided. So, the proposed electronic voting system has to be addressed with these problems. To overcome this problem, we have designed digital voting system which is more secure than electronic voting system. Here we use finger print scanner and eye iris scanner for protection purpose. Instant counting and automatic updating of database with respect to polling are controlled by central system. This system is helpful for voters to vote for the candidate who is representing their residential area from anywhere. It also ensures that vote casting cannot be altered by unauthorized person. Finally the result will be displayed at the end of the day. Touch screen based system are used hence it is user-friendly. Page creation and linking are done using java.

Keywords: Fingerprint, Java, Digital voting

I. INTRODUCTION

The objective of voting is to allow voters to exercise their right to express their choices regarding specific issues, pieces of legislation, citizen initiatives, constitutional amendments, recalls and/or to choose their government and political representatives. Technology is being used more and more as a tool to assist voters to cast their votes. To allow the exercise of this right, almost all voting systems around the world include the following steps : Voter identification and authentication. Voting and recording of votes cast. Vote counting. Publication of election result.

Voter identification is required during two phases of the electoral. Process first for voter registration in order to establish the right to vote and afterwards at voting time to allow a citizen to exercise their right to vote by verifying if the person satisfies all the requirements needed to vote.

Ancient archeological artifacts and historical items have been discovered to still retain a large number of fingerprints on them. Since this was a discovered significant stride in fingerprinting and identification have been made. In 1788 a detailed description of anatomical formations of fingerprints was made. Then in 1823 fingerprints began to be classified into nine categories, (Handbook) and by the 19th century Sir Francis Galton had developed analytical methods for fingerprint matching. As the criminal justice system evolved, there arose the need for criminals to be uniquely identified by some physically identifiable trait. Richard Edward Henry of Scotland Yard began using fingerprinting in 1901 and its success eventually lead to its increased use in the law enforcement field.

The field of biometrics was formed and has since expanded on to many types of physical identification. Still, the human fingerprint remains a very common identifier and the biometric method of choice among law enforcement. These concepts of human identification have led to the development of fingerprint scanners that serve to quickly identify individuals and assign access privileges. The basic point of these devices is also to examine the fingerprint data of an individual and compare it to a database of fingerprints.

Nearly everyone in the world is born with a fingerprint that is unique. A separate and comprehensively identifying attribute that sets us apart from the other 6.5 billion people that inhabit this world. It is because of

this fact that the fingerprint has proven such a useful part of biometric security. The very reason that fingerprint scanners are useful can be found in this fact as well. However, this is far from the only reason they are used.

Another important reason fingerprint scanners are used is that they provide a quick, easy, efficient and secure measure through which an individual with the proper access privileges can authenticate. The fingerprint of an employee for example is stored in a database that the scanner queries every time it is used. There are two basic Boolean conditions the scanner then goes through when an individual's print is scanned. First the print is usually searched for in a database of fingerprints and once it is found it then looks at the print to see what access privileges are associated with the print and compares them to the access they are trying to gain. If everything checks out the subject is allowed access and they are not otherwise. In any case, a log of the event is usually stored for security purpose the size of these devices is another reason they have become so mainstream recently. Fingerprint scanners can be deployed directly near a door for access or as a peripheral to a computer for logging in. Modern day scanners have even been embedded on computer keyboards, mouse and USB devices because engineers have been able to reduce their size. Fingerprint scanners are also very versatile in the function that they serve. The most common use may be for access restriction. However they have served as time clocks, personal data retrievers and even to cut down on truancy in some schools. Since they have experienced so much success in these areas, businesses are expanding upon their use and they are getting more public exposure.

Finger printing recognition, the electronic methods of recording and recognizing an individual finger print, advanced substantially during the last decade of the 21th century. Today identification can be achieved in a few seconds with reasonable accuracy. As a result, the use of fingerprint identification system that record, store, search, match and identify finger prints is rapidly expanding. Here in digital voting system finger print scanner is used since it is more secure. Manual effort is less since everything was digitized. There is no need for voter id and booth slip so voter can cast their vote in any polling booth. When fingerprint is scanned it is cross checked with database, if everything is matched and he/she is allowed to vote. The vote is automatically updated in admin controller. The result is announced by the end of election day.

II. METHODS AND MATERIAL

LITERATURE SURVEY

Biometrics is a method of recognizing a person based on physical or behavioral characteristics. Examples of biometric information used to identify people include fingerprint, voice, face, iris, handwriting, and hand geometry. There are two key functions offered by a biometric system. One method is identification, a "one-to-many"(1:N)matching process in which a biometric sample is compared sequentially to a set of stored samples to determine the closest match. The other is verification, a "one-to-one"(1:1)matching process in which the biometric system checks previously enrolled data for a specific user. The verification method provides the best combination of speed and security, especially where multiple users are concerned, and requires a user ID or other identifier for direct matching[1].Fingerprint (FP) serves to identify that the person authenticating is who he/she claims to be. FP identification is popular biometric technique due to easiness in acquiring, availability of plenty sources (i.e. ten fingers) for collecting data and their established use. Since every person has unique fingerprint, hence it is more easily used to identify a person. FP is the impressions of the minute ridge (called as dermal) of the finger. FP ridges and valleys are unique and unalterable. FP biometric is used in numerous applications that include civilian and commercial applications like military, law enforcement, medicine, education, civil service, forensics, driver license registration, cellular phone access [2]. In electronic voting system data is recorded, stored and processed as digital information. There are two types of e-voting: On-line and offline, On-line, e.g. via Internet, and offline by using voting machine in polling booth. Authentication of voters, Security of voting process and securing voted data are major challenge of e-voting system. [3].Paper-based electronic voting system This system is sometimes called a "document ballot voting system". Paper-based voting systems originated as a system wherein votes are cast and counted by hand, using paper ballots. With the advent of electronic tabulation systems, paper cards or sheets could be marked by hand, but counted electronically. A direct-recording electronic (DRE) voting machine records votes by means of a ballot display provided with

mechanical or electro-optical components that can be activated by the voter - typically buttons or a touch screen; that processes data with computer software; and that records voting data and ballot images in memory components. After the election, it produces a tabulation of the voting data stored in a removable memory component and as printed copy. The system may also provide a means for transmitting individual ballots or vote totals to a central location for consolidating and reporting results from precincts at the central location.[4]. Biometric authenticated Mobile voting system for Jamaica in the first instance, which would use authentication using Fingerprint and voting using the mobile device id i.e. IMEI number, as main security mechanisms. Now before going into the details of this proposed system, we would briefly review security schemes that would be used for mobile voting[5].

III. RESULTS AND DISCUSSION

PROPOSED DIGITAL MATHDAAN PRANALEE

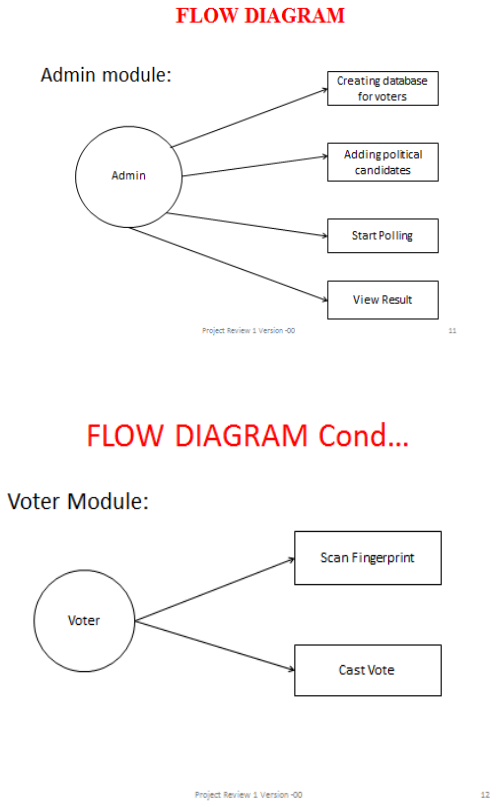

Figure 1. Block diagram of Digital Mathdaan Pranalee

Admin Module : Admin is sole responsible for creating database for voters prior to election. He is the only person who has rights to add all those political parties participating in election. Initiator of polling .Has the rights to view the result.

Voter Module : As a citizen, to register our rights polling is necessary. In order to vote, first we have scan our fingerprint. If the scanned fingerprint is matched with stored database then he/she is allowed to vote.

IV.CONCLUSION

DIGITAL MATHDAAN PRANALEE system is more secure and advanced. Automatic updating of eligible voters and counting are possible in this system. Voters privacy is maintains, since there is an admin for every district, he comes to know about all activities occurring in polling booth, this also reduces the man power. Total voting percentage can also be increased and only authorized votes are registered.

V. REFERENCES

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