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A Review Paper on Fingerprint Based Voting Machine

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ABSTRACT: The main objective of this paper is design and development of a Fingerprint Electronic Voting System. The suggested fingerprint voting system allows the user to scan his fingerprint, in order to check his eligibility by comparing his current fingerprint with the one already stored in the system's database, Once the users complete the identification process, they will be allowed to cast their vote using friendly geographical user interface. The counting of the votes will be immediately and that makes the voting process efficient, fast, and secure.In this system the voter does not need identity card, voters thumb impressions are used to identify the voter .The working of this system consist of two parts ie, enrolling section and voting section. During enrolling the fingerprints of all the voters are collected and stored in the data base. During voting the voter keep his/her thumb in the fingerprint scanner, the system searches for the impression which is already fed in the data base. If it matches, the system will provide command to the voter to vote through a LCD display. If thefingerprints does not match then the system will provide indication to the presiding officer that the voter is not registered.

KEYWORDS: EVM, Fingerprint, Biometric, Fingerprintmodule.

1. INTRODUCTION

Voting process is known as a process for a group by means of a meeting or democratic vote in orders to take a free decision. This manner consider as the best normally found in republic and democratic governments (IDEA international, 2012)

Common elections systems are already exist since hundred years ago. All those earlier election systems, however they had been considered being acceptable in past days, they started to reveal its disadvantages, day after day. These disadvantages, lead to a huge development in the design and style of electronic voting machine. Previously back to 1960, the election systems used were all run manually. This involves, the election system that use paper, were the voters' votes casted and counted by hands. During 1961, the design of voting systems developed from manual base to electronic base where the first electronic voting system was the electronic punch card system (Giovanni, 2008

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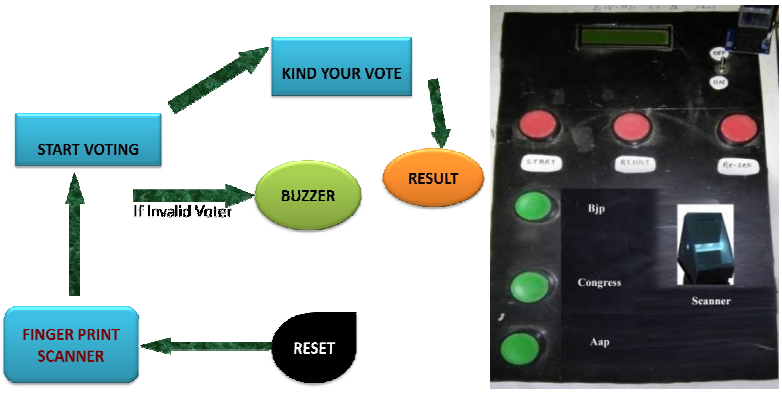

Fig –block diagram and System diagram

Electronic voting machines consist of three actors: people who will make the votes, registration authorities and tallying authorities. All the Voters have the right for voting; have to be register before the Election Day in order to be eligible voters. These authorities make sure of only authorized people give their vote and they must vote only one time during the election and then all the votes will be casted and show the final results of the voting (Cetinnkaya, 2007).Thus this system provide complete security, accurate polling and easy counting. The main advantages of this systems are reduction of polling time, resulting in fewer problems in electoral preparations, law and order, candidates' expenditure and provide easy and accurate counting without any mischief at the counting centre. It is capable of saving considerable printing stationery and transport of large volumes of electoral material.

II. LITERATURESURVEY

1. Ashok Kumar D., UmmalSariba Begum T., "A Novel design of Electronic Voting System Using Fingerprint", International Journal of Innovative Technology & Creative Engineering (ISSN:2045-8711),Vol.1,No.1. pp: 12 19, January 2011

Electronic Voting System that will automatically perform authentication validation and counting with the help of UIDAI. The proposed electronic voting system can be implemented along with the traditional election system. The proposed an approach that will use the information provided by UIDAI in electronic voting system. Is a Project Director at Contain Southampton, United Kingdom. His generation on Biometric technology such as fingerprint. The fingerprints are more secured technology. Those are use in smart e-voting to secure voting process. Fingerprint are use to match the voter data base otherwise voter cannot vote. The fingerprint technologies are using Chris Roberts in voting system.

2. Benjamin B., Bederson, Bongshin Lee., Robert M. Sherman., Paul S., Herrnson, Richard G. Niemi., "Electronic Voting System Usability Issues", In Proceedings of the SIGCHI conference on Human factors in computing systems, 2003.

The information provided by UIDAI in smart voting system. Theproposed system procedure is carried out in mainly few stages: registration, verification and validation. These stages of proposed system are illustrated. the smart e-voting system has been done on fingerprints in humans.There are two fundamentally main goal that have risen from voting process (1) A person's fingerprint will not change the structure naturally after about one year after birth and (2) the fingerprints of individuals are different. Even the twins in fingerprints are not the same. In practice two humans with the same fingerprint have never been found.

III. METHODOLOGY

The aim and the objective are clearer due to the data and information has been gathered from the previous literatures. The design model is the result of the hardware and software integration. The design model shows the

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prototypes, elements, architecture and components of the system. However in order to make this project successful the hardware and the software must be well integrated and organized.

Finding the answers to some possible questions that may come up in the primary research is the aim of the secondary research. In order to achieve successful project, solution form the researcher is necessary. In order to develop fingerprint voting system, enormous research must be done to find the suitable software that is capable to meet the project requirements. Furthermore, some technical element has to be taken into account during developing the hardware and implementing the software into the hardware.

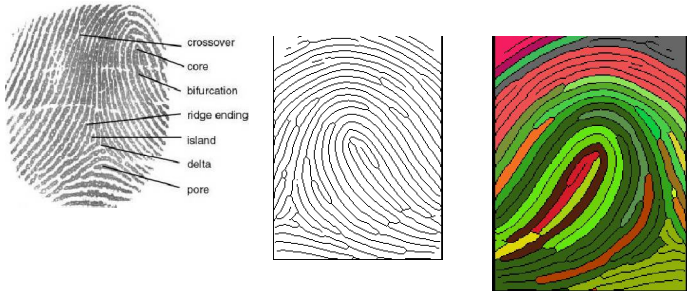
IV. PROPOSED SYSTEM

A Finger print module is an input device used for Fingerprint processing which includes two parts: fingerprint enrolment and fingerprint matching the matching can be or DG.when enrolling, user needs to enter then finger two they have two times. They he system will process the two time finger images, generate a template of the finger based on processing results and store the template.

Then matching, user enters the finger through optical sensor and system will generate a template of the finger and compare it with templates of the finger library For matching, system will compare the live finger

The Basics

A fingerprint is comprised of ridges and valleys. The ridges are the dark area of thefingerprint and the valleys are the white area that exists betweenthe ridges. Many classifications are given to



patterns that canarise in the ridges and some examples are givenin the figure to the right. These points are also known as the minutiae of thefingerprint. The most commonly used minutiae in currentfingerprint recognition technologies are ridge endings because they can be easily detected by only lookingat points that surround

VI.CONCLUSION

Fingerprints considered as one of the most popular biometric methods used for human recognition. Every person in the globe is born with unique fingerprint even twins born with totally different fingerprints and fingerprint is naturally unchangeable throughout life. For that reason fingerprint voting system has been made and the person ID has been replaced with his fingerprint. This fingerprint voting system is implemented and evaluated successfully. The evaluation of the system is made using different PCs with different specifications in order to stand on system strength and weaknesses. The final result of the fingerprint voting system was amazingly significant and computable with other voting system. The system's accuracy came from the image enhancement by removing or reducing the noise**.**

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