

Online Voting System Using Biometric

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ABSTRACT

The basic idea of this system is to create an electronic voting machine that will help to eradicate defrauding of the manual voting system and prior versions of electronic voting by using arduino controller and biometric device for thumb Recognition. We also implement location free voting system to the voters who are not possible to the come at voting location (hometown). Here propose a system that includes multiple layers of verification to ensure the reliability of the device with include the face verification with validation data. Each voter is entered into the system only after being recognized and checked with the given data base of enlist voters, once the corresponding face is matched with the information provided, the voter will be allowed to proceed for choosing their preferred candidate from the panel of buttons.

Keywords- Arduino controller, Thumb device, IoT, Voting System, MySQL.

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I. INTRODUCTION

Election is the act of party casting votes to elect on individual for some type of position, election may involve a public or private vote depending on the position most position in the local, state, and federal governments are voting on in some type of election paper based on election. Voters cast their votes by simply depositing their ballots in sealed boxes distributed across the electoral circuits around a given country, when the election period ends, all these boxes are opened and votes are counted manually in presence of the certified officials.

Problem Statement:

In the voting system ,voter need to go there respective location for the voting purpose, therefor sometimes user can't to go that location due to some reason hence in this project we implement the such online voting system that the user need not go there respective location from the user only go to nearest NIC office or government office and by using thumb user can login there user id that is unique id hence the user can successfully login to there respective location and hence the voting is finish the vote will be locked

into private database.so if vote is locked once after that user cant allow to access again that process. Hence duplication of vote is totally avoid.

II. LITERATURE SURVEY

Online Election Voting Using One Time Password Prof. Uttam Patil and Asst.Prof. at Dr. MSSCET 2016, in this paper author proposed a method that the Admin will load the databases of all voter so that he can add/delete/edit candidates, parties and voters[1]. He registers each voter with valid E-mail ID and corresponding information.

An Analysis of Secure Online Voting System, Prof. Anisaara Nadaph, Ashmita Katiyar, Tushar Naidu, Rakhi Bondre, Durgesh Goswam, 2014 in this proposed method that system is a two fold system comprising of SMS voting system and website voting. The voter can use either of the two ways as per his convenience[2]. In this paper, a new approach of voting breaks the limitation of traditional voting and focuses on the security and feasibility of the voting.

A survey on antispoofting schemes for fingerprint recognition systems Emanuela Marasco and Arun Ross 2014 Proposed a method that will reduce vulnerabilities in biometrics, including those due to spoof attacks using finger print sensing and antispoofting methods for fingerprints which can be hardware or software based[3].

Android Based E-Voting Harshad Velapure, Saurabh Rai, Saransh Sharma, Preetam Naiknavre, Pranali Jadhav, Kalyan Bamane 2014 Proposed an Android eVoting application on smart phone user gives voter facility to vote, an application with an Admininter face for consultation to a dynamic web page offers the main question to be answered (voted), and together to this page are available the buttons to send the votes: Yes, No[4]. The Android platform that will enable people to vote securely from anywhere.

III. EXISTING SYSTEM

Traditionally the election commission in India uses electronic voting machines which need more man power time consuming and voter need to there respective location. Due to some reason some peoples can't go there respective location for voting hence vote is waste.

IV. PROPOSED SYSTEM

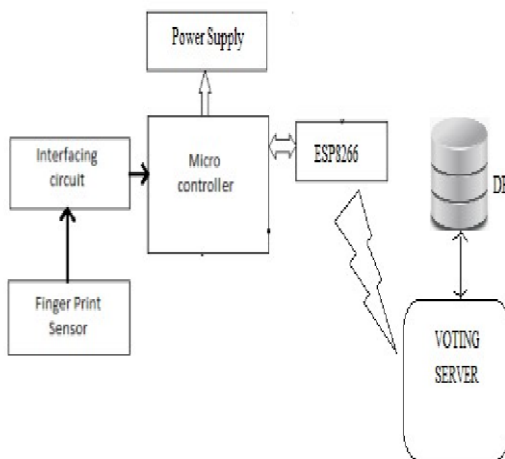


Fig 1. System architecture

System flow:

All records of voter can maintain.

Then verify his thumb using biometric device and detect with help of IoT processing. Also, identity is according voter data.

After, he is allowed to cast his vote by pressing the corresponding button on the machine.

Finally, corresponding vote will be send to the respective area where the voter will be registered by online.

V. HARDWARE SPECIFICATION

1. ESP8266:



Fig 2. Wi-Fi model

Feature:

- Voltage:3.3V.
- Wi-Fi Direct (P2P), soft-AP.
- Current consumption: 10uA~170mA. □ Flash memory attachable: 16MB max (512K normal).
- Integrated TCP/IP protocol stack.
- Processor: Tensilica L106 32-bit. □ Processor speed: 80~160MHz. □ RAM: 32K + 80K. • GPIOs: 17 (multiplexed with other functions).
- Analog to Digital: 1 input with 1024 step resolution.

V. CONCLUSION

Our proposed solution is arduino based with biometric device which allows the voter to register the vote anywhere through the IoT. This system is secured, authentic and able to avoid multicasting of the vote. This system is more reliable in which multiple voters can vote from multiple locations. It also reduces workload, human and time resources.

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