IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Online Voting System

Guide: Prof. Karade S.A.

Authors:

Divya Dharurkar, Rani Limkar, Nikita Kavate

Abstract: We are developing an on-line voting system by taking advantage of centralized database witha web interface. The main concept of this project is to build a website , which will be able to allow people to cast their vote through on-line. Time saving , working load reduced , information available at time and it provides security for data. In a democratic country like India we are not getting 100% of voting. People are not ready to poll their vote because of many factors like people can't go to the polling stations to cast their vote(especially aged persons and physically challenged people). People may be at remote places .There are several issues with traditional paper based voting like ridging votes during election , insecure or inaccessible polling stations , inadequate polling materials and also inexperienced personnel. This On-line Voting System seeks to address the above issues. With this system , the citizens may get ample time during the voting period. Every citizen is registered first and all the details are managed at centralized database .And at the time of elections the citizens will be login through their credentials and cast their vote.

INTRODUCTION.

The increasing complexity of educational choices and career decisions has made it challenging for students to identify the right India has democratic government. As now all Indian citizen become a part of the growing digital India .They have a digital ID that is Aadhar card. Voting schemes have evolved from counting hands in early days to systems that include paper, punch card, electronic voting machine. An electronic voting system which is used nowadays provide some characteristic different from the traditional voting technique, and also it provides improved features of voting system over traditional voting system such as accuracy, convenience, flexibility, privacy, verifiability and mobility. But Electronic voting systems suffers from various drawbacks such as time consuming, consumes large volume of paper work, no direct role for the higher officials, damage of machines due to lack of attention, mass update doesn't allows users to update and edit many item simultaneously etc.These drawbacks can overcome by Online Voting System. This is a voting system by which any voter can use his/her voting rights from anywhere in the country. Voter can cast their votes from anywhere in the country without visiting to voting booths, in highly secured way. That makes voting a fearless of violence and that increases the percentage of voting.

KEYWORDS—Online Voting, Secure Authentication, OTP, Aadhar-based Login, E-Voting System, Biometric Verification, Database Security, Electronic Election, Web-Based Voting

LITERATURE SURVEY

Now-a-days , there are tons of things we do online , from shopping to doing of any official arrangement .So , why don't we make the elections also to be online . In this pandemic situation , gatherings is very danger . So , if we are trying to make voting process online Vote at any time from anywhere : Today's way of living doesn't leave much free time . We have little to no time to do anything or go anywhere . So it would be good that may be giving the chance to the members of our country to cast their vote in just a few minutes , without the need to go to a certain place , would be a good option . So probably online voting would be better option . Unlike traditional voting , that makes voters go to a specific time in

order to vote, online voting allows them to cast their vote at anytime of the day and from any place , just with the need of an Internet connection Boost Participation : As a result of previous point , choosing online voting for election will more likely boost the participation . Many people can participate in the elections to cast their vote so that the turnout increases Less Physical Infrastructure : When running a online voting system , we can avoid the need for all the physical infrastructure usually required on a traditional voting . No need of paper, printing , physical urns or staff. This may therefore lead to a lower monetary investment Fast and easy votes tally : Since the counting of votes takes place through machines(automated), human errors can be avoided . And also the process becomes more faster so that the results are also processed faster Security : Most important factor for voting systems . In our proposed system security is provided by OTP authentication .We have observed some major components provided in their website. Some of them are Voters : Target users of the website. Website provides platform to utilize their right to vote. Services : It allows citizens to cast the vote . Results: Every citizen can view the results of elections at any point of time Security: Security is provided by the website using the OTP authentication technique We used html, css, javascript for the front end development and PHP for connecting to the database and storing the data. Visual Studio code is the tool used for writing the code code. XAMPP is also used for developing the project since it is a free and open source cross platform. It consists APACHE HTTP server ,MARIA DB database, and interpreters for scripts written in the PHP and Perl programming languages. We have gone through the OTP authentication codes and chose to implement the random OTP generation. decision trees) to predict student divisions based on prior academic performance.

PROPOSED SYSTEM

This Online 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 COMMISION OF INDIA in which complete data of voter with complete information is stored. At the time of registration voter will be asked for this: Full name, age, aadhar card no, mobile no. email id, finger prints and verified the details by administrator. At the time of requesting vote, voter will be asked to enter his Aadhar id. Then voter will be authenticated, and he can give vote from one of the candidate from the list. If voter already has AADHAR Id then he/she don't need to register, else before voting he/she need register himself/herself in AADHAR database.

Key Features of the System:

1.Voter Authentication: Ensures that only eligible voters can access the system using secure login credentials, biometrics, or multi-factor authentication.

2.User-Friendly Interface: Simple, accessible design that guides users through the voting process clearly and efficiently.

3.End-to-End Encryption: Secures all data transmission from the voter's device to the server to protect vote integrity and privacy.

4.Vote Anonymity: Ensures that votes cannot be traced back to individual voters, maintaining confidentiality.

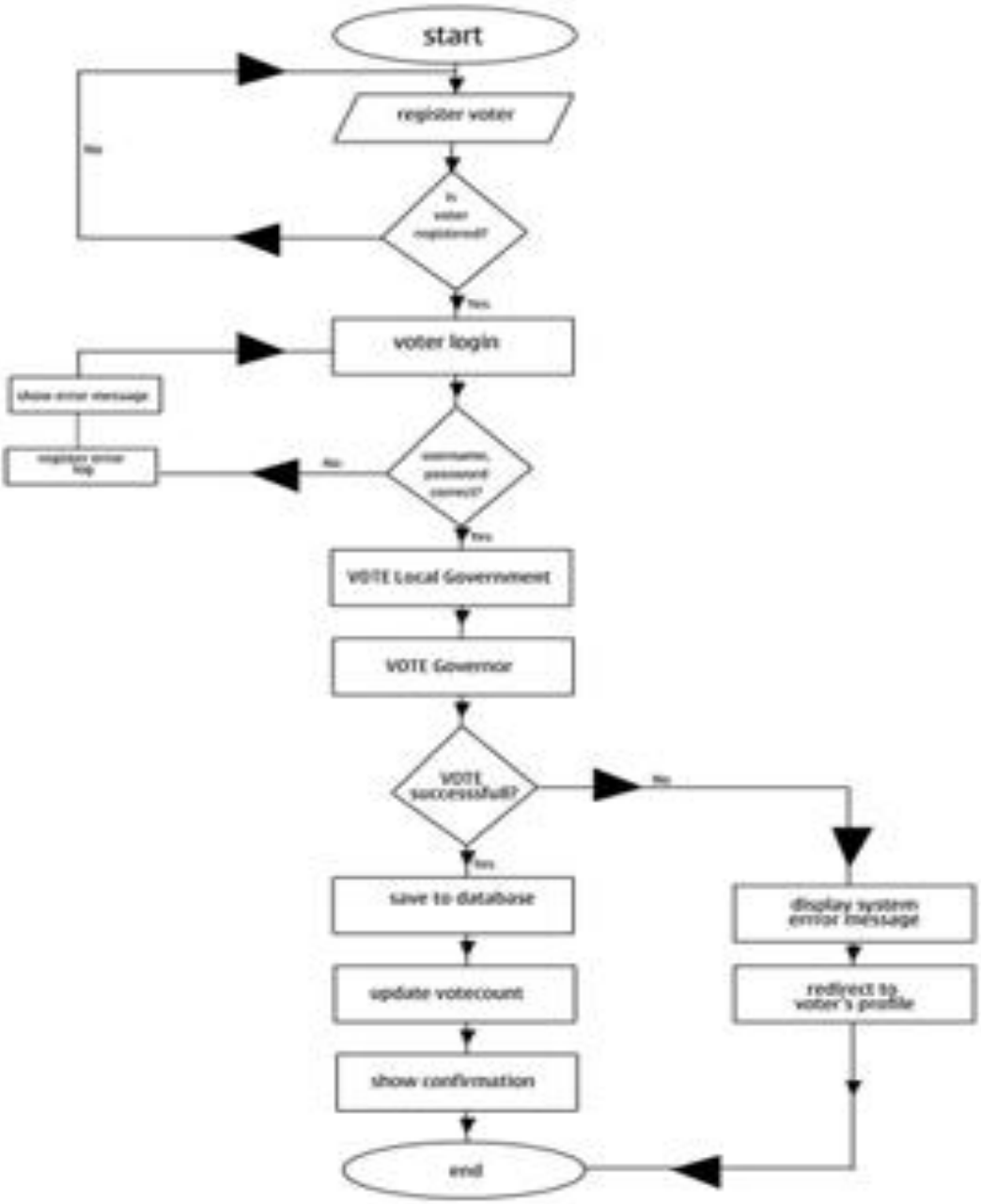

FIGURE 1. SYSTEM ARCHITECTURE

Usecase Flow:

The Usecase flow will be as follows.

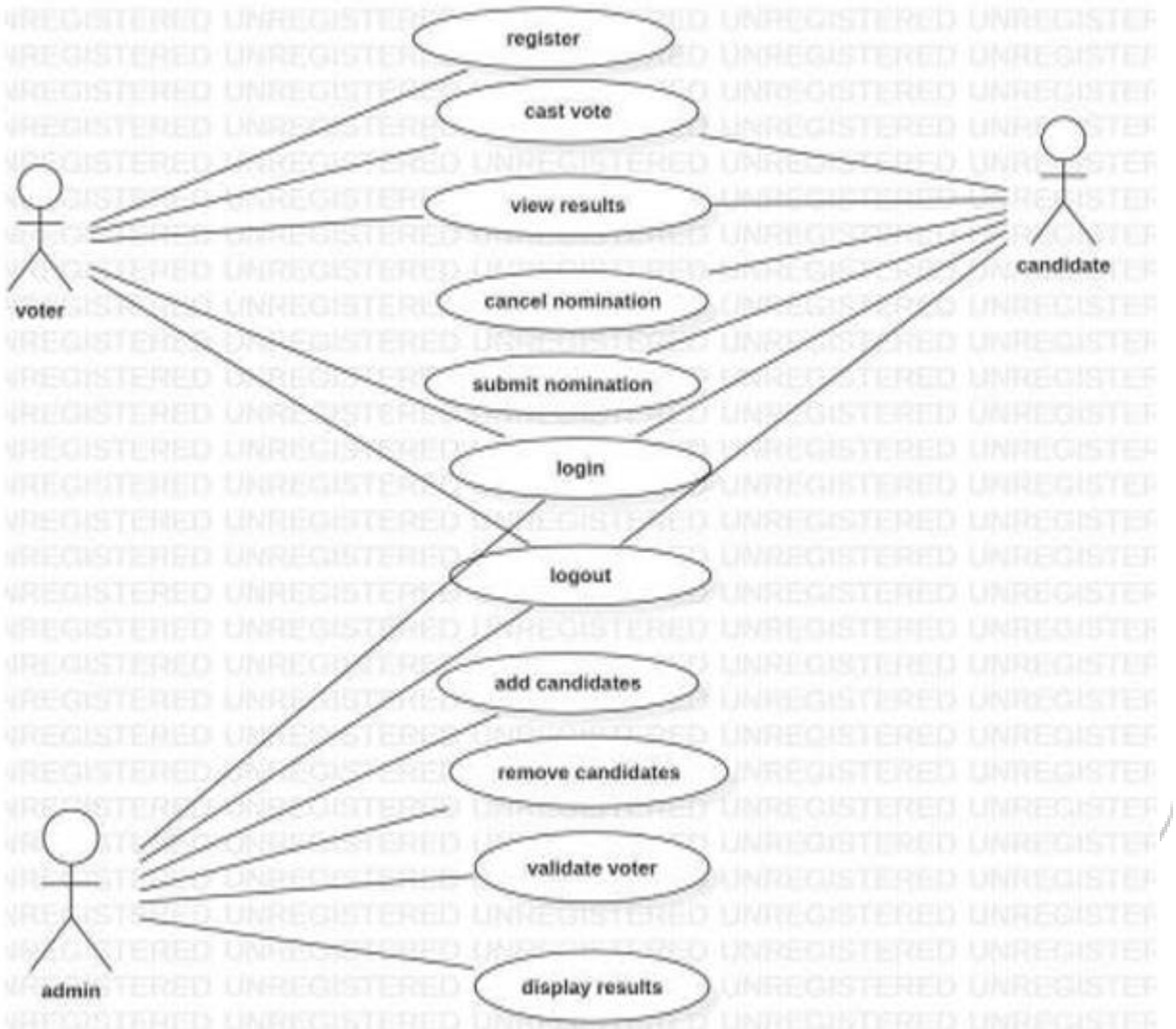

FIGURE 2. USECASE FLOW OF SYSTEM

ALGORITHM USED

1. Minutiae Based Algorithm

In this we use two algorithms: minutiae-extraction algorithm (fingerprint detection) and minutiae-matching (matching fingerprint i.e. input fingerprint and database fingerprint) algorithm.

a. Minutiae Extraction

Fingerprint authentication is based on minutiae patterns matching. Minutiae extraction consisting three components:
i. Orientation field estimation
ii. Ridge extraction
iii. Minutiae extraction and post processing

b. Minutiae Matching

We can match fingerprint by different strategies, such as point pattern matching, image based matching, ridge pattern matching, graph based scheme, etc. The point pattern matching is the minutiae matching. a minutia matching is decomposed into two stages: i. Alignment stage
ii. Matching stage

FUTURE SCOPE

1. We are designing an alternative voting system besides the conventional voting system . Since , todays world has become very familiar with internet and people don’t find time to go out for voting By doing this project we were able to bring a new system for online national voting for our country.

2. With the advent of technology and Internet in our day to day life, we were able to offer advanced voting system to voters both in the country and outside through our online voting system.

3. We are designing an alternative voting system besides the conventional voting system . Since , todays world has become very familiar with internet and people don’t find time to go out for voting Gatherings are also very dangerous in this pandemic situations. Providing better solution to overcome the issues with existing system.

CONCLUSION

Online Voting Systems have many advantages over the traditional voting system. Some of these advantages are less cost, faster generation results, easy accessibility, accuracy, and low risk of human and mechanical errors. It is very difficult to develop online voting system which can allow security and privacy on the high level. Future development focused to design a system which can be easy to use and will provide security and privacy of votes on acceptable level by proper authentication and processing section.. It is easy to use and it is less time consuming. It is very easy to debug.

VII. REFERENCES:

1. Himanshu Agarwal and G.N. Pandey "Online Voting System for India Based on AADHAAR ID" 2013 Eleventh International Conference on ICT and Knowledge Engineering.
2. Smita B. Khaimar, P. Sanyasi Naidu, Reena Kharat "Secure Authentication for Online Voting System"
3. Shivendra Katiyar, Kullai Reddy Meka, Ferdous A. Barbhuiya, Sukumar Nandi "Online Voting System Powered By Biometric Security" 2011 Second International Conference on Emerging Applications of Information Technology.
4. https://www.irjet.net/archives/V4/i12/IRJET-V4I12256.pdf
5. https://www.irjet.net/archives/V9/i12/IRJET-V9I12230.pdf
6. https://www.viit.ac.in/images/Research/Publications/26-20118_20118_YOGESH_publication_875_1685159366313.pdf.pdf
7. https://youtu.be/3x697N7sHl8?si=dpu0E0SLcMrmc8kO