

# Online Voting System Using Face Recognition

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## ABSTRACT

The basic idea of this system is to create an online voting system that will help to eradicate defrauding of the manual voting system and prior versions of online voting by camera for Face Recognition and OTP generation. We also implement location free voting system to the voters who are not possible to come at voting location (hometown). Here propose a system that includes multiple layers of verification to ensure the reliability of the device with included firstly OTP verification after that camera activate and 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-** Image Processing, Python, Voting System, Face Recognition, MySQL, OTP.

## ARTICLE INFO

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## I. INTRODUCTION

TOI 24 Jan, 2009 11 lakhs fake votes in Delhi India News June 2013 : Election commission has found 30000 illegal voters in the constituency of Sheila Dikshit. In total 1358179 voters have been found illegal in Delhi. LJP(Lok Janshakti Party) Chief, Ram Vilas Paswan alleges: 30% voter- cards fake in Bihar 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 .in 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. This OTP and Face information is passed to the server unit for the verification; the server reads DATA from the database and compares this data with the already existing data. If the data matches with the already stored information, the person is allowed to poll his vote. If not, a message is displayed on screen and therefore the person isn't allowed to poll his vote.

Voting is a method by which the electorates appoint their representatives. In current voting system, the voter should show his voter ID card whenever an individual goes to the booth to poll one's vote. This process could be a time consuming method, as the person needs to check the voter ID card with the list he has, confirm it as an authorized card and then enable the person to poll his vote. Thus, to avoid this type of problems.

**Problem Statement -** In India when the election period ends, all these boxes are opened and votes are counted manually in presence of the certified officials. In this process there can be error in counting of votes or in some cases voters find ways to vote more than once. Sometimes the voter's facing the problem of location. For example, overseas voters at other location and voting are hometown so; due to the office work voter not go to the particular location so voting is not consider

## II. LITERATURE SURVEY

The literature survey is considered as a part of the work. It interference the queries related the improvement of work

already done and clearly outline the development of the research projects.

[1] 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. He registers each voter with valid E-mail ID and corresponding information.

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

[3] 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.

[4] Android Based E-Voting Harshad Velapure, Saurabh Rai, Saransh Sharma, Preetam Naiknavre, Pranali Jadhav, Kalyan Bamane 2014 Proposed an Android e-Voting 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. The Android platform that will enable people to vote securely from anywhere.

### III. BLOCK DIAGRAM

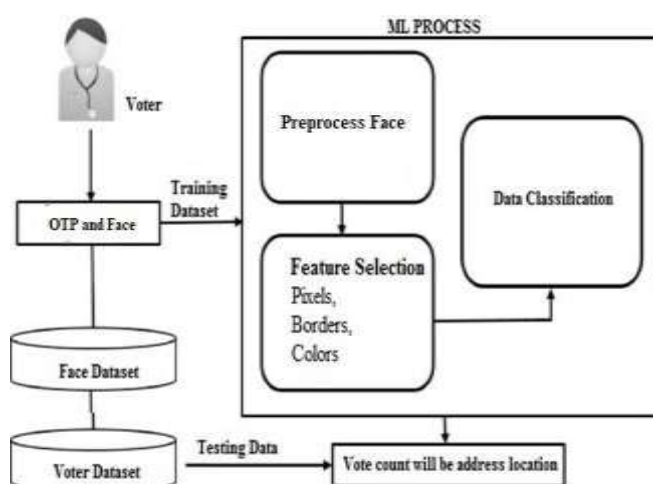


Fig 1. Block diagram

The great challenge lies in developing an economically feasible system so that government and private sector can use this system.

1. All records of voter can maintain.
2. Then verify his face-using camera and detect with help of image processing.
3. Also, identity is according OTP based voter data.
4. After, he is allowed to cast his vote by pressing the corresponding button on the machine.
5. Finally, corresponding vote will be send to the respective are where the voter will be registered by online.

### Local Binary Pattern Histogram

Local Binary Patterns (LBP) is a perceptible descriptor style used in the classification of computer vision. LBP is the specific case of the 1990 proposed Texture Spectrum model. In 1994, LBP was represented for the first time. Since then, it has been found as a solid element for classifying texture. More specifically, once LBP is combined with the descriptor histogram of oriented gradients (HOG). It obviously improves the execution of identification on some datasets.

### Haar Classifier Algorithm:

The core basis for Haar classifier object detection is the Haar-like features. These features, rather than using the intensity values of a pixel, use the change in contrast values between adjacent rectangular groups of pixels. The contrast variances between the pixel groups are used to determine relative light and dark areas. Two or three adjacent groups with a relative contrast variance form a Haar-like feature. Haar-like features, as shown in Figure 1 are used to detect an image. Haar features can easily be scaled by increasing or decreasing the size of the pixel group being examined.

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### V. CONCLUSION

Our proposed solution is machine learning based with face detection, which allows the voter to register the vote anywhere. This system is secured, authentic and able to avoid multicasting of the vote. This system is more reliable in which can vote from multiple locations. It also reduces workload, human and time resources.

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