A Smart Bio-metric Voting System

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Abstract- Fingerprint Based Voting Project is an application where the user is recognized by his finger pattern. Since the finger pattern of each human being is different, the voter can be easily authenticated. The system allow the voter to vote through his fingerprint. Finger print is used to uniquely identify the user. The finger print minutiae features are different for each human being. Finger print is used as a authentication of the voters. Voter can vote the candidate only once, the system will not allow the candidate to vote for the second time. The system will allow admin to add the candidate name and candidate fingerprint who are nominated for the election. Admin only has the right to add candidate name and fingerprint who are nominated. Admin will register the voters name by verifying voter. Admin will authenticate the user by verifying the user's identity proof and then admin will register the voter. The number of candidate added to the system by the admin will be automatically deleted after the completion of the election. Admin has to add the date when the election going to end. Once the user has got the user id and password from the admin the user can login and vote for the candidate who are nominated. The system will allow the user to vote for only one candidate.

Keywords- Bio-metric fingerprint, File-System, HTML, Java Script, WAMP, Dreamweaver, Aadhar card.

I. INTRODUCTION

Fingerprint Based Voting Project is a application where the user is recognized by his finger pattern. Since the finger pattern of each human being is different, the voter can be easily authenticated. The system allow the voter to vote through his fingerprint. Finger print is used to uniquely identify the user. The finger print minutiae features are different for each human being. Finger print is used as a authentication of the voters. Voter can vote the candidate only once, the system will not allow the candidate to vote for the second time.

The system will allow admin to add the candidate name and candidate fingerprint who are nominated for the election. Admin only has the right to add candidate name and fingerprint who are nominated. Admin will register the voters name by verifying voter. Admin will authenticate the user by verifying the user's identity proof and then admin will register the voter.

The number of candidate added to the system by the admin will be automatically deleted after the completion of the election. Admin has to add the date when the election going to end.

Once the user has got the user id and password from the admin the user can login and vote for the candidate who are nominated.

The system will allow the user to vote for only one candidate. The system will allow the user to vote for one time for a particular election. Admin can add any number of candidates when the new election will be announced. Admin can view the election result by using the election id. Even user can view the election result.

II. PROBLEM STATEMENT

**Existing Voter Registration System**

The Problem with existing manual system of voting include among others the following:

- Expensive and time consuming.
- Too Much Paper work.
- Error during data entry.
- Loss of registration form.
- Short time provided to view the voter register.

III. SCOPE OF PROJECT

- Increasing number of voter as individual will find it easier and more convenient to vote.
- The System can be used anytime and from anywhere by the voter.
- No one can cast votes on behalf of others and multiple times.
- Saves time and reduces human intervention.
- The System is flexible and secured to be used.
- Unique Identification of voter through Aadhar number.
- Improves voting with friendly interface.
- No fraud vote be submitted.

IV. ARCHITECTURE
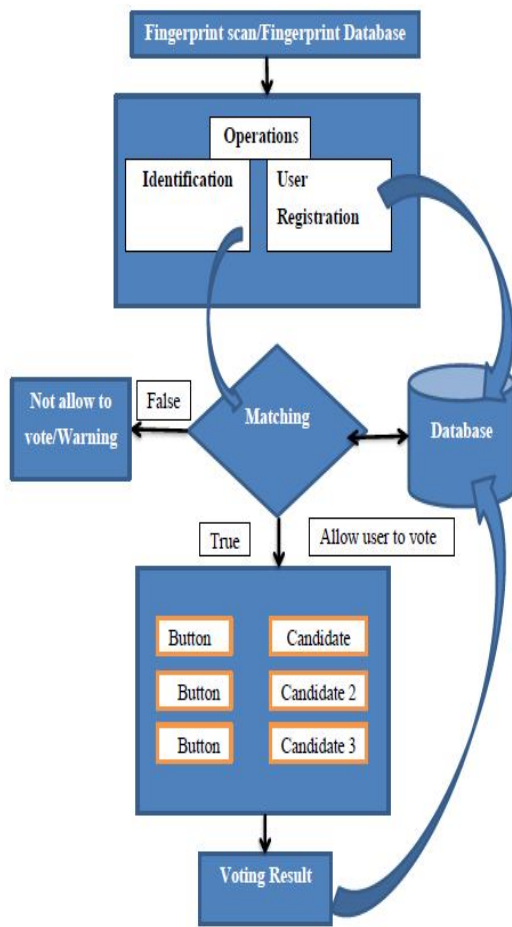
Architecture Of Bio-Metric Voting System

V. DESCRIPTION OF ARCHITECTURE

The architecture consists of a the voter who wants to cast his vote will scan his fingerprint using the fingerprint scanner. The fingerprint voting system will perform many processes to the voter fingerprint image in order to check the authority of the voter. The output of the fingerprint voting system either true or false, if the output is true that means the voter can cast his vote if it was false then the system will activate a warning.

VI. SYSTEM REQUIREMENT

Hardware Requirements	
Processor	Intel i5 760 2.8Ghz
Ram	8Gb
HDD Space	10Gb
Fingerprint scanner	Cogent CSD200

Software Requirements	
Operating system	Windows-10 64-bits
IDE	Eclipse
Java Version	JDK 1.7, JRE 1.7

VII. ALGORITHAM

In pattern recognition, the k-nearest neighbors algorithm (k-NN) is a non-parametric method used for classification and regression. In both cases, the input consists of the k closest training examples in the feature space. The output depends on whether k-NN is used for classification or regression.

VIII. MODELS

Module 1: System Authentication

In system authentication model "It consist two option i.e. voter and admin. One signup button for signing to access next model. One change button for changing password."

Module 2: Register to voter and Vote

In this module user having two different option i.e. Register to vote and Vote. If user select the Register to vote option then next module i.e. registration Form is open and if Vote option is selected then voter first scan the fingerprint then verify it and then it allow for vote.

Module 3: Voter Registration Form

In this module voter first submit his/her full information such as Aadhar No, Name, Date of birth, Mobile no, Ward no, Ward Name. After than voter should be submit their fingerprint which is saved in database and then saved the information.

Module 4: Verification

In this module voter had three options they are Fingerprint, Verify, Cancel. In this first voter scan his/her fingerprint which is compare with fingerprint saved in databased. Then voter press the verify button if fingerprint is saved in database then it successfully verified.

IX. EXPERIMENTAL RESULT

SYSTEM AUTHONTICATION
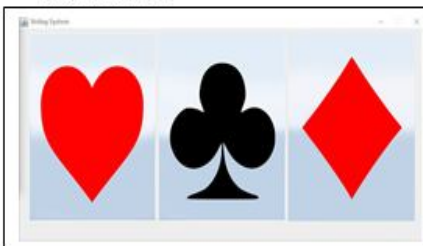
B. REGISTER TO VOTE AND VOTE

C. VOTER REGISTRATION

D. VERIFICATION

E. CAST VOTE

F. RESULT

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