

# UID Based E-Voting System

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## ABSTRACT

An online voting system based on UID database for Indian election is proposed for the first time. The proposed model has a greater sense in voter identification. The data store in UID database can easily retrieve and access by voter through his/her thumb scan. The additional feature of the model is that the voter can confirm if his/her vote has gone to correct candidate/party. In this model a person can also vote from outside of his/her allotted constituency or from his/her preferred location. In the proposed system the tallying of the votes will be done automatically, thus saving a huge time and enabling Election Commissioner of India to announce the result within a very short period.

**Keyword :** - Databases, Electronic voting, Nominations and elections, Security, Servers, Thumb scanner.

## 1. INTRODUCTION

Our system is based on UID database. UID is a unique\_id which is provided by Indian government to every Indian. So the every Indian has a unique identity which can helps to avoid in bogus/duplicate voting.

We will make a model which can improve the voting scenario in future with the help of following major points: [1]

- Improve the percentage of voting.
- Avoid duplicate voting.
- Voter can vote from outside of his/her constituency or his/her preferable place.
- Minimization of document handling at voting time.
- Fast announcing result.

### 1.1 Motivation

Now a day's India goes towards the vision to achieve the "digital India" concept. Most of offices, institute, organizations are used modern technologies in their regular working area. Also the government and private sectors are minimizing his paper works.

UID database is used for various purposes and activities. UID is a unique identity. Government of India store all information of Indian peoples in UID database and provides them "AADHAR CARD". Every Indian has a unique identity number.

Also every government offices, institutes, agencies, companies, banks, schools, colleges, etc everywhere “AADHAR CARD” linking is compulsory .most of places finger print scan for the attendance of their staff. Banks are used UID database for the maintain customer account information and their subsidies.

Election system is very important process in India. Voting system is a way that helps public to select their representatives. But now a day we all see that lots off fake voting activity are happened in election period for elect wrong person as a public representative. As in the manual voting system where the voters need to come to the polling booth and cast their vote and also while result counting some people should be assigned to count the votes there are chances of committing mistakes these all drawbacks have motivated us to develop E-voting system based on UID database where the voter can cast his vote to a particular candidate belonging to a particular party from any constituency. [2]

## 2. LITERATURE SURVEY

### 2.1 Study of Existing System

#### 2.1.1 Paper Ballot System

In traditional voting system voters was casting their votes through the paper ballot system, so this system was not secure because of nobody can check details of vote, also the counting is major issue in this system. Their fore to avoid this problem e-ballot is introduced.



**Fig 1.** Paper ballot system

#### 2.1.2 E-Ballot System

E-ballot means electronic voting machine ballot. In that system voter can cast their vote on single button press. After the casting votes, the database store in other machine. Once voter can press button mistakenly then there was no provision to change their vote. Also the administration is the major problem in that system, so require more security.



**Fig 2.** E-Ballot voting System

### 2.1.3 Flaws in exiting System

- Voter who complete his 18yrs but yet not register to election commission database, will not cast his vote according to election lows.
- Voter from other constituency will not able to cast their vote.
- Counting process require more time, their fore result announcement is very slow.
- Administration is a major issue.
- Paper work is more.
- Duplicate voting is main issue.

### 2.2 Comparisons of existing Systems with proposed system

Existing system has an lots off issues and flaws their fore to overcome this flaws and issue we proposed system which is UID based E-voting system.

Proposed system can be useful as follows:

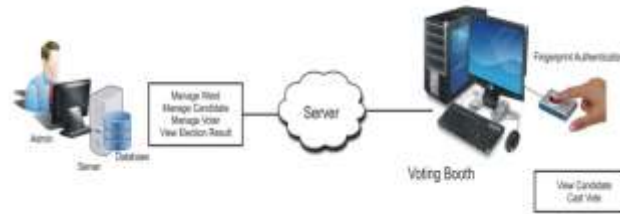
1. This system is based on UID and every Indian has an unique\_id and all information of people are store in UID database along with thumb print and retina scan, their fore voters no need to registration after 18 years completion.
2. Thumb print is sufficient to prove voter identity, so duplicate voting will be reduced.
3. Voters can cast their vote from any constituency.
4. Votes can directly store on main election commissions office database, their fore result announcement is very fast.

### 3. SYSTEM OVERVIEW

UID based E-voting system has several important steps. The system is approachable from two sides:

- 1) From the voter side.

2) From the Administrator (Election Commission of India) side.



**Fig 3.** Architecture Diagram

Some important steps perform in UID Based E-voting System are:

#### 1. Collect UID data

Our System is mainly based on UID database. But currently this database is not available for us so we gather all this database constraint and make our own database same as AADHAR /UID database.

#### 2. Collect candidate/party data or information

In this model we design a ballot paper which is consist of candidate profile picture, party logo, candidate information, candidate unique id and submit button, etc.

#### 3. Make identification and authentication

In this phase voter can feed the AADHAR number as an login ID and thumb scan as an password. After entering correct ID and password voter information will display.

#### 4. Check eligibility and address

After successful login our system will automatically check the eligibility criteria by calculating age i.e. (b\_date+18yrs). If voter is eligible then system finds out voter constituency with the help of address.

#### 5. Store Result

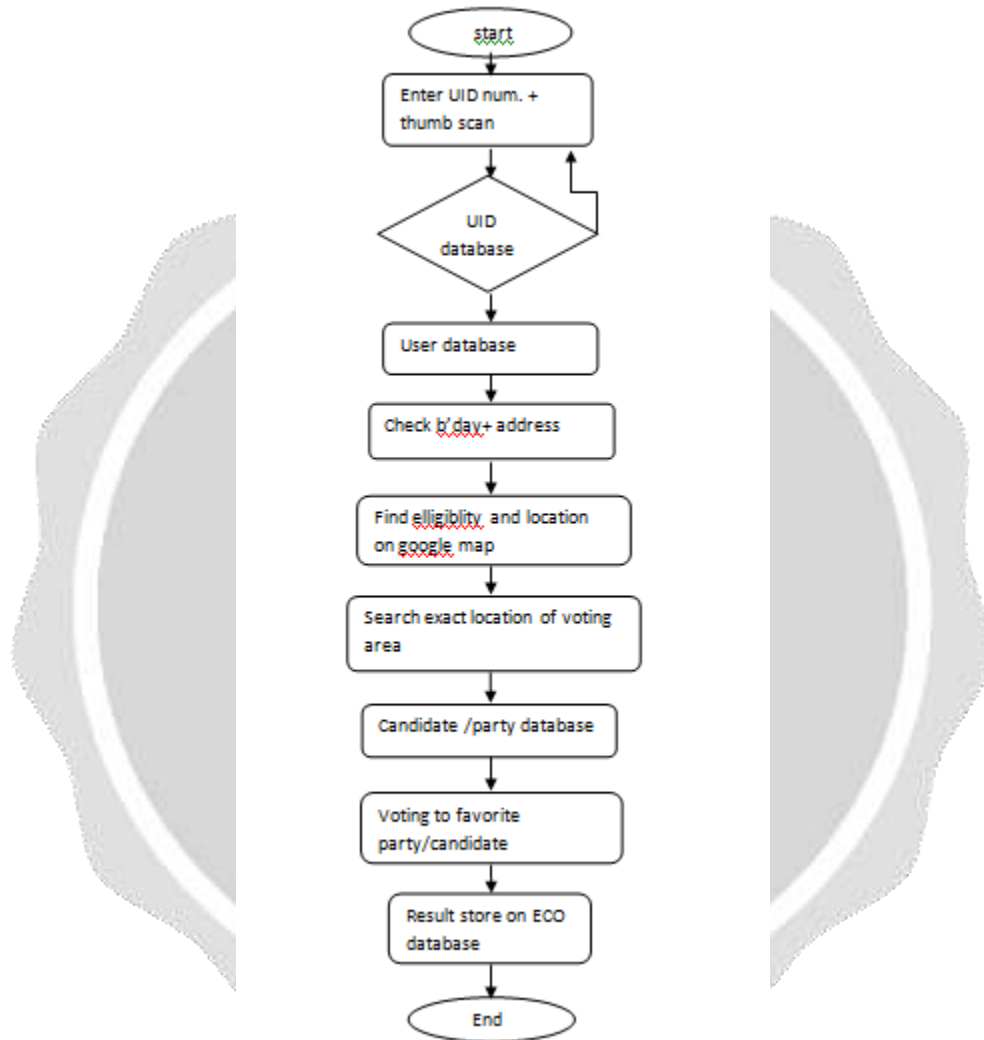
In this phase we make a database on server side which can directly store the votes. This database can also check with district magistrate database for correction/rechecking. By using this database result can announced within a short time.

### 3.1 Algorithms

Following steps shows the plan of the workflow.

1. Create database
2. Enter the UID no. and thumb scan as a user name and password.
3. Check and identify user data.

4. Check b\_date for eligibility and address.
5. Search address on Google map and find the location and allocated area of user for voting.
6. Show the candidate/party information in that area.
7. Give vote to favorite candidate/party.
8. Store result on election commission office database.



**Fig 4.** Flowchart

#### 4. CONCLUSIONS

The purpose of implementing “UID based E-voting system” is to put the system into full practice use during elections. The use of computers in the voting process will enhance the speed and accuracy at which data will be maintained and managed. Moreover security based concerns like impersonating, proxy voting, rigging can be avoided. But to the layman the knowledge of computers may be little. Sufficient amount of training may be required before introducing it to the general public.

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