

# Iris Based E-Voting System Using Aadhar Database

Saravanan.N, Pavithra.K, Nandhini.C

**Abstract:** Iris based E-voting system using Aadhar database is a method for safe and secure aadhaar based electronic voting system using iris identification. Iris is one of the unique identities of a human being this is being used in the aadhar system. By using arduino software iris of every individual is being captured. The polling of the vote is transmitted to PC through arduino communication. Iris of the person captured is compared to aadhar database. We also know about individual persons full details in the personal computer. By using this method the voter will ensure if his/her vote has gone to correct candidate/party. The votes are going to be done automatically.

**Keywords:** Arduino, Iris scanner, Aadhar database.

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## 1.INTRODUCTION:

The voting system is managed in a easier way as all the users should login by Aadhar card number and password and click on his/her favorable candidates to cast the vote. The main goal of this paper is to develop a secure Electronic voting machine using IRIS identification method, for IRIS accessing we use AADHAR card database. The voting system is managed in a easier way as all the users should login by Aadhar card number and password and click on his/her favorable candidates to cast the vote. Voting is a method by which the electorates appoint their representatives. In current voting system the voter should show his aadhar 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 aadhar 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, designed a iris based mostly voting machine wherever the person no needs to carry his aadhar that contains his entire details. Aadhar database is created containing the iris scan of all the voters in the constituency. Illegal votes

Hence if this system is utilized the elections would be truthful and free from rigging.

## 2. EXISTING SYSTEM:

An electronic voting system is a voting system in which the election data is recorded, stored and processed primarily as digital information. E-voting is referred as "electronic voting" and defined as any voting process where an electronic means is used for votes casting and results counting. E-voting is an election system that allows a voter to record their ballots in an electrically secured method. A number of electronic voting systems are used in large applications like optical scanners which read manually marked ballots to entirely electronic touch screen voting systems. Specialized voting systems like DRE (direct recording electronic) voting systems, RFID, national IDs, the Internet, computer networks, and cellular systems are also used in voting process.

## 3. PROPOSED SYSTEM:

In this method, the details of the voter will get from the AADHAR card database. It was a newly developed database which is having all the information about the people. By using this database we took the voter's information will be stored in the Personal Computer. At the time of elections, for Iris accessing we use Iris sensing module. Iris recognition refers to the automated method of verifying a match between two human IRIS. Iris scanner Capture the iris image and compare or match to database, capture Iris and database Iris matched means this person will be valid for polling section and if condition is satisfied automatically, Arduino which is can be inserted into

and repetition of votes is checked for in this system.

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iris scanner it will scan particular person's iris and send the data to aadhar database. Aadhar which is containing that particular person's age address, fingerprint. Iris scanner will check the person detail after that it will consider if the person is valid or invalid. After completion of his/her voting process, a "voting process completed" message will be displayed on the screen.

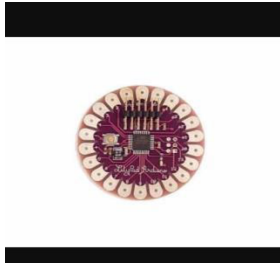


FIG:ARDUINO.

IRIS verification could also be an honest choice for in e-voting systems, where you can provide users adequate explanation and training, and where the system operates in a controlled environment. It is not stunning that the work-station access application area looks to be based almost exclusively on iris, as a result of the relatively low price, small size, and easy integration of iris authentication devices Capture the iris image and compare or match to database. The amount of votes is counted by the E-Voting machine and therefore the data are sent to the Server through the online technology.

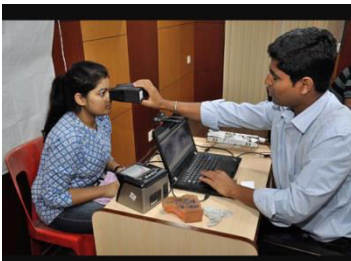


FIG: IRIS SCANNER

In earlier days the election process is in such a way that there will a box and a paper with all the political parties list. Whereas voting the voter has to put a stamp over the party symbol of his/her desired candidate in a specific consistency. This is an extended time consuming method and extremely a lot of prone to errors. Additionally the probabilities for rigging were a lot of during this traditional methodology. To

beat of these ballot papers, stamps, boxes etc., going for Aadhar based E-voting system. So that, to beat time consumption, Rigging, insecurities etc., Here in Aadhar primarily based E-voting system, using the information primarily based server for Aadhar details, for the online technology and arduino.

### 3.1.IRIS RECOGNITION:

Iris recognition is an automated method of biometric identification that uses mathematical pattern-recognition techniques. **John Daugman** developed the first actual algorithms to perform iris recognition.



FIG:IRIS IDENTIFICATION

### 3.2. ADVANTAGES OF IRIS BASED E-VOTING SYSTEM:

#### TIMING:

Verification time is generally less than 5 seconds.

**UNIQUENESS:** Every person has unique iris. Even twins have totally different iris details.

**STABILITY:** The Iris is essentially stable across one's life time.

**SCALABILITY:** Iris recognition is well suited to large scale personal identification applications.

**SECURITY:** Iris is small in size and active near infrared illumination is required to capture detailed iris textures in most cases so it is difficult to collect clear iris images of others without their awareness, Very high accuracy, highly protected AADHAR based Electronic voting systems have many advantages over the traditional way of voting. Some of these advantages are lesser cost, faster tabulation of results, improved accessibility, greater accuracy, and lower risk of human and mechanical errors. It is very difficult to design ideal e-voting system which can allow security and privacy on the high level with no compromise. This concludes that the Iris based e-voting will useful

- To avoid duplication
- To avoid time consumption
- To keep the voter's information more secured.

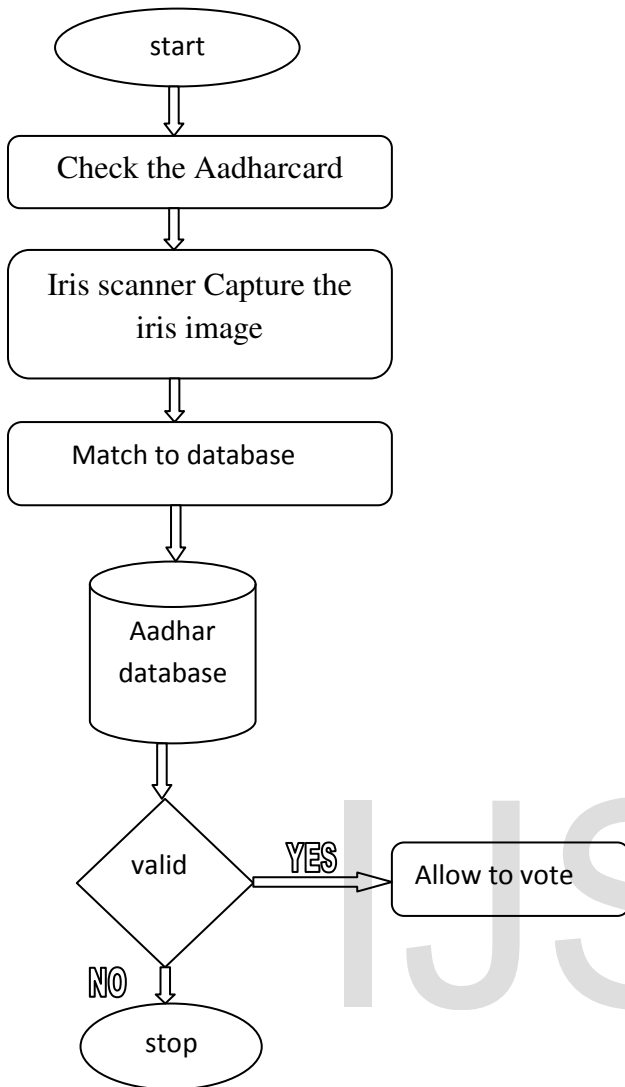


FIG: FLOWCHART

**4.CONCLUSTION:**

One can easily change the thumb impression of other with the help of some other techniques. It can make mistakes with the dryness or dirty of the fingerprint's skin as well as with the age (is not appropriate with children, because the size of their

fingerprint changes quickly).Although fingerprints do not naturally change over the course of person's lifetime, it is possible for fingerprints to become damaged to the point where they are not useful for identification. Injuries to the fingertips can all cause a person's fingerprints to become different, unreadable or even eliminated. Very intrusive. With the age, the fingerprints undergo certain changes which can pose uncertainty in identification.

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