

ELECTRONIC VOTING SYSTEM USING MOBILE

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ABSTRACT

As we all know, the current scenario of the polling system and the way of voting during the election process. Polling disrupted by militants in J&k. 43,732 polling stations declared 'sensitive'... Seeks security plan from home ministry Candidate escapes gunshots in TN.Can you imagine an election without the booth capture, without firing of polling stations, clashes between parties, voting without long standing queues, without the ferry service to vote, voter friendly, with an increased voting rate.(NO, THAT WE ALL KNOW) So, here we are coming with new ideas and approaches to overcome such problems. As we all know the public use to face lots of problem during the election process and also after the election, this all lay down with a major effect on to the economic and technological growth of our country.

So here we are with new approach to overcome this all problem

and bring our nation a beauty full and peace one. Yes, that day is not far from here. Here in this, we are going to simplify the voting process. In this hi-tech era the mobile

phones attached with the iris scanner has to be used to cast the votes. Of course this m-voting reduces the time, cost, risks. The iris recognition technology will pace our thoughts with higher degree of authentication. The technology we are about to implement is about the m-voting...that is mobile voting using biometric. Few electronics devices and the way of iris signature. We can make the polling system of election in very great full and peace full manner. And one day we will see our country a well developed and well friendly.

INTRODUCTION:

M-voting is the technique of casting the votes through the cell phones. Their scanner will

check the person for the validity. The eye patterns will transmit to the

server. After getting the permission from server, the person can vote by sending the keys. This m-voting can have access anywhere from the world with the help of satellite communications

CURRENT SCENARIO:

Now a days, large troops of military and Paramilitary forces are employed for security purposes. It's a drain to our economy. The main stress on EC being the protection of ballot boxes EVM. On the day of counting, higher security is needed.

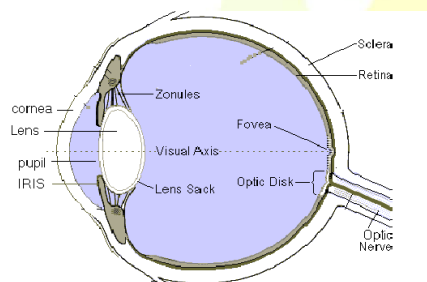
TODAY'S VOTING PRACTICE



People have to stand in lengthy queues, in hot sun, sometimes in rains. Old age persons have to face more troubles. Remote area peoples have to travel by boats, horses, bulls and even elephants. These factors reduce the voting rate. Hence, the combination of mobile communication and the biometric techniques paves the way for new generation of voting. Hence, we can expect —GOOD DEMOCRACY can flourish in the country.

MISSION IMPOSSIBLE:

The person who is going to vote has to call to election commission office and then he/she has to show the eye for a fraction of second. The photographed eye will be transmitted to the office and it is processed for the validity, authentication. And they will get a unique code based on (0-9) according to the captured iris. After getting the permission, the person can vote to the desired candidate. The figure shows the location of iris in human eye IRIS



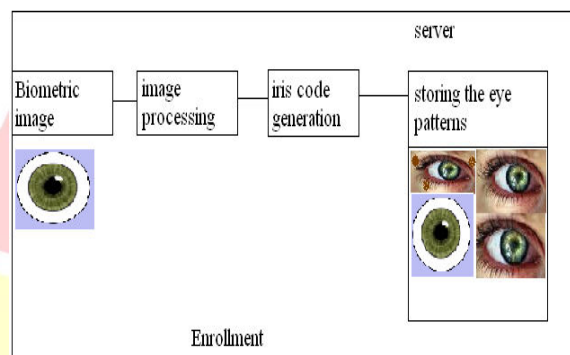
The voting process consists of,

- ✓ Enrollment of iris patterns.
- ✓ Iris code scanning of individuals.
- ✓ Verification for the validity.
- ✓ Permission to vote.
- ✓ Voting.

All these lead to the success of democracy.

ENROLLMENT:

On prior to the election the public has to enroll their iris pattern with the main server provided by the election commission. It may be at the district head quarters, municipal office, etc. This registration can be done once throughout the life. The database containing their iris pattern along with the personal data will have to be kept confidential. Here the camera takes a photograph and generates the iris code. The distance between the camera and the eye can be 4 to 24 inches. This stage alone needs the human work.



BIOMETRICS:

Biometrics technologies are defined as an automated method of identifying or authenticating the identity of a person based on physiological or behavioral characteristics. Physiological characteristics are more stable characteristics such as,

- Face recognition
- Finger print recognition
- Iris recognition
- DNA recognition
- Behavioral characteristics is the reflection of make up
- Signatures
- Voices

IRIS SCANNING:

The person who is going to vote has to send the number provided by EC via text message, with the help of iris scanner the server system scans the unique code which has been sent by each individual and verify it for the purpose of validation and authentication.



A low-level incandescent light illuminates the iris so the video camera can focus on it, but the light is barely noticeable and used strictly to assist camera. One of the frames is then digitized then transmitted and stored in a PC database of enrolled users. The whole procedure takes less than a few seconds, and can be fully computerized. Scanning is actually performed since the eye is simply photographed.

ABOUT IRIS:

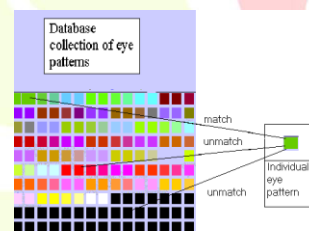
An iris has a mesh-like texture to it, with numerous overlays and patterns that can be measured by the computer. The iris recognition software uses about 260 degrees of freedom. Why Iris recognition? Glasses and contact lenses, even colored ones, do not interfere with the process. In addition, recent medical advances such as refractive surgery; cataract surgery and corneal transplants do not change the iris characteristics. In fact, it is impossible to modify the iris without risking blindness. Moreover, even a blind person can participate. As long as a sightless eye has an iris, that eye can be identified by iris recognition. Even the best fingerprint technology uses about 60 to 70 degrees of freedom.

IRIS CODE GENERATION:

The picture of an eye is first processed by software that localizes the inner and outer boundaries of the iris, and the eyelid contours, in order to extract just the iris portion. Eyelashes and

reflections that may cover parts of the iris are detected and discounted. Sophisticated mathematical software then encodes the iris pattern by a process called Demodulation. This creates a phase code for the texture sequence in the iris, similar to a DNA sequence code. The Demodulation process uses functions called 2-D wavelets that make a very compact yet complete description of the iris pattern, regardless of its size and pupil dilation, in just 512 bytes. The stored file is only 512 bytes with a resolution of 640*480, allowing for massive storage on a computer's hard drive. The phase sequence is called an iris code template, and it captures the unique features of an iris in a robust way that allows easy and very rapid comparisons against large databases of other templates. The Iris code template is immediately encrypted to eliminate the possibility of identity theft and to maximize security.

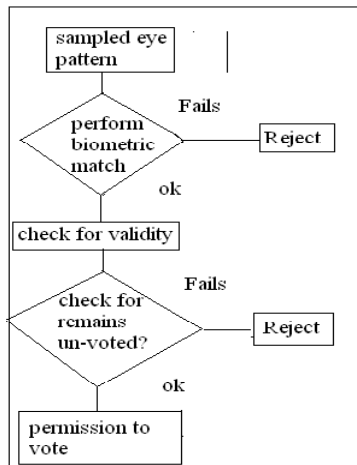
VERIFICATION:



One to many comparison In less than a few seconds, even on a database of millions of records, the Iris code template generated from a live image is compared to previously enrolled ones to see if it matches any of them. The decision threshold is automatically adjusted for the size of the search database to ensure that no false matches occur even when huge numbers of Iris code templates are being compared with the live one. Some of the bits in an Iris code template signify if some data is corrupted (For example by reflections, or contact lens boundaries), so that it does not influence the process, and only valid data is compared. Decision thresholds take account of the amount of visible iris data, and the matching operation compensates for any tilt of the iris.

PERMISSION:

The server provided at the polling station will verify the iris code with the database and then it verifies whether they had already voted. If they are eligible to vote, the server permits them to vote through their cell phone, else request them to register once for throughout lifetime.



- Enable secured voting anywhere from the world.
- Further, this can be used for citizenship rights, border-crossing permissions, passports, and even for ATM services.

CONCLUSION:

We have presented a newer approach to the voting process, which will surely bring a change. We can reach the dream day, the peaceful election in which everyone can participate without any discrimination, threats, and risks. Dream day is nearer....

REFERENCE:

1. ELECTRONICS FOR YOU
2. www.google.com

VOTING:

The success of democracy lies here. After getting the permission from the EC server the person can vote from his mobile. Once the code gets verified, the server will send the polling screen via message direct to the mobile. This will make so portable to everyone. Hence, the resulting increase in the rate of vote shows the growth in technology and economic of our country. The prerecorded message will help to select the candidate with right choice and also give acknowledgement.

BENEFITS:

- Time saving.
- Patterns are extremely complex to make a duplicate.
- Imitation is not possible. Pattern cannot be changed with risking the eye.
- Election mal practices can be stopped.