

Project charter



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Group 2

Section 3

* Project name: Fingerprint Voting System
* Project sponsor: [National Election Authority](https://www.elections.eg/)
* Project manager: Mohamed Ehab Hassan
* Purpose: More accurate & easier voting system
* Business case:

Currently, the voting system in Egypt is vulnerable to many threats, the only thing that security checks is the voter’s personal ID card, which can be faked by many people now days.

It is a slow process and counting votes manually takes a long time.

In this project, we will develop a voting system based on fingerprint identification which can recognize users using their fingerprint patterns.

Since fingerprint pattern is unique for each person, the system will identify each user (voter) by using his fingerprints, and, of course, it will allow any voter to vote for a candidate only once.

The National Election Authority will add all the names, electoral symbols and photos of the candidates registered in the election. Then the NEA verifies and registers voters using their personal ID information and their fingerprints (every user can register up to 3 fingerprints because more fingerprints patterns will require more space), then after verification, voters will be registered in the system. Then, NEA determines the deadline of the election, after which the system will automatically save the results in a secure and safe database for a limited time until the next election.

The voters can log in to the system using their ID and password given to them by the Authority then use one of their 3 registered fingerprints to vote to their candidate. After the end of the election the system automatically counts the votes and publishes the results for people.

* Project scope:

1. The system will register every citizen who meets the requirements for the electing process (according to the Egyptian constitution).
2. The system will take the personal ID information (such as: photo, name, national ID, etc.) and up to 3 fingerprints from each citizen to completely register the citizen as a voter.
3. The system will automatically and quickly count the votes and publish the results to increase the creditability and the transparency of the National Election Authority.
4. The system will store the results of the electing process in a safe well-protected database in case of future reviews and researches.

* Key deliverables of the project:

1. The system will allow the voters to ensure their identity using their fingerprints.
2. The system will make sure that each voter can vote only once using any of his three registered fingerprints.
3. The system will automatically calculate the sum of votes that each candidate has.
4. The system will store the results of the election in a well-secured database for a limited time until the next elections.

* Project milestones (Timeline of project):

1. In the first 8 months a team of computer engineers and developers will do researches on some suitable fingerprint-scanner devices and make it.
2. For 9 months a team of IS engineers will do researches on the required storage and software for the information system and initiate it.
3. For 7 months a team of telecommunication engineers will make a reliable network through Egypt.
4. The system will be tested for 3 months.

* Project resources:

1. A team of computer hardware engineers.
2. A team of IS engineers.
3. A team of telecommunication engineers.
4. A team of Programmers.
5. A team of security administrators.
6. Fingerprint scanner devices.
7. Database storage system.
8. Network devices.

* Budget:

7,000,000 $ (includes: fingerprint devices, IS storage systems, servers, engineers, developers, training)

* Constraints:

1. The project must take less than 3 years
2. The cost no more than 7,000,000 $.
3. The DBMS must be bought from Oracle.

* Assumptions:

1. The project doesn’t take more than 38 months.
2. The cost is not more than 7,000,000 $.
3. Efficiency in the fingerprint devices.
4. The database has enough storage to store the votes and the results of the elections.

* High level risks:

1. Damage in the IS storage systems.
2. Damage in the fingerprint scanner devices.
3. Increase in the cost.
4. Not to satisfy the voters.
5. The storage doesn’t have enough space to store the votes and the results.

By. Mohamed Ehab Hassan Sayed

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