**VOTING SYSTEM**

We are living in a democratic country and voting is one of the fundamental duties of the public. In our country, manual voting system has been deployed for many years. However, manual voting process has caused some difficulties for voting process and also it has some disadvantages for the public. We can list some o**f these problems as follows.**   
• Especially there have been cases of threatening in Eastern part of Pakistan at polling stations and people are faced with problems during voting.  
• Sometimes people may not be in village/county registration and because of that reason they don’t fulfill their voting duties.  
• Lots of time and problems are occurring on vote counting process since this activity is done manually.  
• Due to manual voting process there is lots of paper waste during election times.  
• Voter usually doesn’t know too much detail about the candidates in their election region.

With the growth and expansion in technology new ways were sought to handle the electoral process such as electronic voting. Electronic voting is the process of use of computers or other electronic devices to cast votes in an election. So in order to overcome those problems there is a need for a contemporary electronic voting system in addition to manual voting. By design of such a system people can use their votes in any selection field condition to be registered to the system before. Also by using the system voters can learn details about the candidates and they will be interacting with each other before the Election Day. This system will also facilitate the vote counting processes and produce more accurate results and within a short time thanks to the computer technology. Because of these reasons such an electronic voting system contributes to the development of the country’s democracy too much.

**EXISTING SYSTEM**

In the present system there is no such application level system provisions in the country to carry out the voting and procedure as a whole . Also in the present status, there is no such application in use for automated system for voting according to the voting structure existing in the country. All the step by step procedures are carried out by the authorized authorities according to the jobs assigned by the ECI. The fact is all the procedures are carried out manually, starting from the registration process to result publishing.

The government to do this process manually wastes a lot of time and money. Thus the present system proves itself to be an inefficient one. The existing system is not web based. The user or person must want to go to the polling station for casting their votes.

**PROPOSED SYSTEM**

The new implemented voting protocol has two main players: The voter and administrator sections. The voter(which can be found at home, in a working station, in a special polling station or any other device have the function of performing the Authentication and voting).The administrator performs the function of voter and candidate registration, authorization and validation of voter, database and counting and the result.

The main advantages of the new protocol are the following:

1) Public transparency by the administrator (publication of Voter ID key, etc.).

2) Inured to technical troubles like interruption of access, etc, uncomplicated recovery.

3) Possibility of configuration for different voting models by policies and Greater performance.

Furthermore it is assumed that a trustworthy Administrator is available. Apart from that, the accessibility to the public in the voting procedure plays a special role, which means that the voting result can be monitored, although casting of the votes has to be secret as a matter of course.

Accessibility to the public is necessary for all voting stages and is performed by the electoral committee, but also by any member of the public.

**Analysis of Entity Relationship Diagram:**

In the entity relationship diagram the relationship between different entities has been showed. Important attributes are also given here, among them the primary keys and the foreign keys are underlined. All the attributes are not given here because of the shortage of space.

**Person:**

A Person can be a Admin, Voter or a Candidate of a Party. A person includes his/her detail. Name, F.Name, Address, Age, Gender, CNIC, etc

**Administrator:** Administrator is person who controls whole of online Voting in Database. In addition to it has one to many relationships with the entity Voter as thousands of voters are also related to one administrator. And a Administrator have his Admin ID. And an Admin can also be a voter.

**Voter:** Voter has two attributes one is Voter\_id another is Area\_id. It has two one to one relationship with the entity Secondary and Administrator.

Voter votes to a party and it depends on Types of Voting (Category of Vote).

**Vote Category:** it have two attributes category ID and Name of Vote.

**Party:** Party has two attributes Party Name and Party\_id. It has two one to many relationships with the candidate.. A party can give nomination a candidate for each polling area. So the number of candidates can be the same as the polling area for each party.

**Candidate:** Candidate has attributes those are Can\_id, , Voter\_id. It has a one to many relationships with the voter . It has also a many to one relationship with party as discussed before.

**Result:**  Result is based on Votes. And it has relations with Voter, Candidates, Party Members and Administrator.

**Online Registration**

In online Registration system population of country will register themselves for eligibility and voting. After register

They will get special account id through which they can login to their account to vote for their candidate.

**ERD of Online Registration**



**Online Voting System**

In Online voting system voter who are eligible for voting will get online through their accounts and will vote to their Candidate.



**ERD of Online Voting System**