Abstract

The conventional voting systems are being replaced by electronic voting machines to safeguard the security, reliability, and transparency. There are two types of E-voting systems. The first one is based on visiting a polling station; voters are still identified by using identification cards. Voters do not fill voting cards as in the paper form but push buttons on various electronic devices. The second type of E-voting system is based on remote technology. Usually, electors vote using computers at distant locations or at polling stations. Our contribution is to merge the two existing electronic voting systems to design a new one that takes into account the benefits from each one of them. That is to say, we design an embedded electronic voting machine that works with authentication based on a smart card and fingerprint with RSA encryption. Our system is both faster and more secure than the conventional ones.