

Usability and Biometric Authentication of Electronic Voting System

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Abstract : In this paper, a new voting system is developed and its usability is evaluated. The main feature of this system is the biometric verification of the voter and then a few easy steps to cast a vote. As compared to existing systems available, e.g dual vote, the new system requires no training in advance. The security is achieved via multiple key concept (another part of this project). More than 100 student voters were participated in the election from University of Malakanad, Chakdara, PK. To achieve the reliability, the voters cast their votes in two ways, i.e. paper based and electronic based voting using our new system. The results of paper based and electronic voting system are compared and it is concluded that the voters cast their votes for the intended candidates on the electronic voting system. The voters were requested to fill a questionnaire and the results of the questionnaire are carefully analyzed. The results show that the new system proposed in this paper is more secure and usable than other systems.

Keywords : e-voting, security, usability, authentication

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