



MULTI-MODULAR BIOMETRICS IN ATM TRANSACTIONS - A REVIEW

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ABSTRACT

Biometric recognition systems provide a reliable personal recognition schemes to either confirm or determine the identity of an individual. Biometric systems are used widely to recognize individuals and control access to information, services, physical spaces, and to other rights or benefits, including the ability to cross international borders. Biometrics help in improving the convenience and efficiency of routine access transactions, reducing fraud, and enhancing public safety and national security. Applications of such systems also include computer systems security, secure electronic banking, mobile phone access, credit cards, secure access to offices, social and health services. By using biometrics, a person could be identified based on "who he/she is" rather than "what he/she has" (card, token, key) or "what she/he knows" (password, PIN, pattern). This paper outlines opinions about the usability of biometric authentication systems, comparison between different techniques, limitation, and their advantages and disadvantages with new and innovative model for biometric Automatic Teller Machines which replace card system by biometric technology for operating them. This proposed model provides high security in authentication which also protects end user from unauthorized access to his/her bank account by authenticating himself with a biometric identification (Fingerprint/Iris etc.), Personal Identity Number (PIN) and selection of bank, branch and account thus saving cost, time, and labour in comparison with card based ATMs and solves the problem of environmental pollution caused due to the excess number of plastic cards as the person is not required to carry multiple ATM cards along with himself as all his bank accounts will be linked to his biometric identity (Fingerprint, Iris etc.). This method will also help the people who don't know how to access ATMs with cards and also who feel it bulky to carry multiple cards with them and even saving on their time. This method will also prevent frauds in banking as the customers can be carefree about the loss of their ATM cards or their duplicity by hackers etc. as no physical equipment would be required by the customer except his own self which will also enhance the portability.

Keywords: *Biometrics, Fingerprint Recognition, Multi-modular ATM security, Verification, Identification, Security, ATM*