

Distortion analysis on binary representation of minutiae based fingerprint matching for match-on-card

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Abstract

The fingerprint matching on the smart card has long been developed and recognized faster method than fingerprint matching on a computer or large capacity systems. There has been much research and activities concerned with improving the accuracy, time efficient implementations, security and efficient space of the match on card. In this paper presented is the survey on the methods used to improve the accuracy in matching and memory usage by representing minutiae points in binary. In addition, distortion is a major challenge in binary representation of minutiae points that affect the accuracy in fingerprint matching. Therefore this paper includes the methods used to deal with fingerprint distortion while representing minutiae points as binary vectors. This survey will assist on the new developments of match on card applications, in improving the accuracy and memory efficient while dealing with the problem of fingerprint distortion.