An Effective Finger Dorsal Pattern Biometric System using MBC and SIFT Schemes

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Abstract

Biometrics plays an important role in Person Authentication. Recently finger outer dorsal pattern called Finger knuckle print has found more popular application in biometric system. In this paper a novel feature extraction schemes called Monogenic Binary Coding (MBC) and Scale Invariant Feature Transform (SIFT) was proposed and it is applied to popular polyU FKP database. In this work two different features extraction are applied successfully applied to image recognition tasks for biometric based authentication applications. Finally the experimental results show that right index finger exhibits higher recognition rate (96%) compared to left index finger (84.17%).

Keywords: Biometrics, EER, Finger Knuckle Print, MBC, SIFT.
References


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