Abstract

One of the current trends in biometric human identification is the development of new emerging modalities. Knuckle biometrics is one of such promising modalities. Texture pattern produced by the finger knuckle bending is highly unique and makes the surface a distinctive biometric identifier. This paper presents feature based identification methods for an emerging biometric identifier called Finger-Knuckle-Print (FKP). Techniques employed for feature based approach is Gabor filter method. In applications of computer vision and image analysis, Gabor filters have maintained their popularity in feature extraction for almost three decades. In the proposed work experiment is carried out to identify finger knuckle images of more than 100 persons. Compared with the other existing finger back surface based biometric system, the proposed FKP system achieves much higher recognition rate.

References

Heidelberg(2007)

Finger Knuckle Print Identification using Gabor Features


Index Terms

Computer Science  Security

Keywords

Biometrics  Gabor filter  Personal authentication