Abstract

Biometric is termed as an instinctive recognition technique of a person relied on the extracted physical or behavioural features. Nowadays, consideration of this technique depends on various factors. Finger knuckles can be played as a strong contender among competent features used in biometric system due to its characteristics. Fundamentally, surface of finger knuckle is considered as a unique shape created on the finger joints at their back region of the hands. Here the system pertains to middle joint of the fingers with outer surface for finger knuckle print based authentication system. System uses spatial digital filtration for speeded up robust features (SURF) extraction that increases the precision rate for better authentication. Spatial filter can directly work with pixel image at each point (x, y). The result is the sum of products of the mask coefficients with the corresponding pixels directly under the mask. It is process of non linear filtration that operates on neighbourhoods and the mechanics of sliding a mask past an image are the same as was just outlined. The proposed system is able to acquire high level of accuracy with minimal error rate.
References

A Biometric Finger Knuckle-Print Pattern Recognition for SURF using Spatial Filters


28. 

Index Terms

Computer Science Pattern Recognition

Keywords

Knuckle Print Authentication, Biometric System, Feature Extraction, Spatial Filter, SURF.