Abstract

Fingerprint improvement is a serious part in automatic fingerprint recognition system. It is an essential select the suitable improvement approaches for fingerprint, in order to reduce the processing part of the fingerprint recognition system. Various methods of improvement fingerprint images described based upon non-stationary directional Fourier domain filtering. Fingerprints are first curved using a directional filter whose orientation is everywhere matched to local orientation. A robust method for latent fingerprint verification improvement is studied. In contrast with most state-of-art-method, approaches do not rely on the information of local gradients, which are sensitive to structured and unstructured background noise. Thus the previous methods are robust against gradient deviations. It also provides forceful estimates to frequencies of fingerprints in a limited region to allow effective filtering for fingerprint ridges and valley pattern improvement.

**Index Terms**

Computer Science  
Pattern Recognition

**Keywords**
Fingerprint recognition, filtering Technique, directional filtering, structure and unstructured background noise.