

光学计量与测试

一种有效的指纹细节特征提取算法的研究

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摘要:

针对常规指纹细节特征提取算法不足的问题,提出了一种有效的指纹细节特征提取算法,即在细化图像上直接提取原始细节特征点,得到初步的特征提取结果,然后根据图像的伪特征点分布规律,将伪特征点删除,最终保留真实的特征点集。实验结果表明,此算法能有效消除各类伪特征点并且有效地减少计算时间。

关键词: 指纹 细节特征 细化图像 伪特征点

Efficient fingerprint minutiae extraction algorithm

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Abstract:

Fingerprint minutiae extraction is the key to fingerprint identification technology. To overcome the deficiency of conventional fingerprint minutiae extraction algorithm, an efficient fingerprint minutiae extraction algorithm is proposed, which extracts the original minutiae points directly from the thinned image and gets the results of the preliminary feature extraction. The pseudo-feature points are removed and the true set of points is retained according to the rule of the pseudo-feature points. Experimental results show that this method can effectively eliminate all kinds of pseudo-feature points and reduce the computation time.

Keywords: fingerprint minutiae extraction thinned image pseudo-feature points

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