Singularity Points Detection in Fingerprint Images

Abstract

An efficient algorithm for singular points (core and delta) detection in fingerprint images is proposed. The algorithm is based on an efficient maximum variation in local orientation field calculation method. The method was tested with FVC-2000 fingerprint database and the results were compared visually to the results obtained by human experts. The algorithm is capable of detecting singular points with precision and less computational time. The proposed algorithm outperforms existing algorithms in detection accuracy and calculation speed.

References

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Index Terms

Computer Science  Security

Keywords

Fingerprint  Orientation Field  Singularity Points.