Abstract

Multimodal Biometric Watermarking System using multiple sources of information for establishing the individuality has been widely recognized, computational models for multimodal biometrics recognition have only recently got attention. In this paper multimodal biometric images such as fingerprint, palmprint, and iris are extracted individually and are fused together using Average, Minimum and Maximum fusion mechanism. The fused template is then watermarked using the PSO watermarking system. The biometric features used here are fingerprint, iris and palmprint. The image quality is measured by using various metrics such as Peak Signal Noise ratio (PSNR), Normalized Absolute Error (NAE) and Normalized Cross Correlation (NCC). CASIA database is chosen for the biometric images. All the images are 8 bit gray-level JPEG image with the resolution of 320*280.

References

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**Index Terms**

Computer Science

Image Processing
Keywords

Biometric watermarking fusion Peak Signal Noise ratio (PSNR) Normalized Absolute Error (NAE) and Normalized Cross Correlation (NCC).