Bi-Modal Biometric Authentication by Face Recognition and Signature Verification

Abstract

Face and signature are still two most dominant authentication modes in banking, legal documents, or personnel records in spite availability of more robust biometric modes. Hence, it is imperative to develop low-cost and reliable automated face recognition and signature verification system. Therefore, this paper presents our work in development of a two-in-one portable low-cost dsPIC30F3013 digital signal processing microcontroller based system for real time face recognition and signature verification. The face recognition part of the system is based on eigenface method, while the offline signature verification is based on 12-dimensional feature vector derived from the signature's geometric attributes.

References

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**Index Terms**

Computer Science Pattern Recognition

**Keywords**

Authentication  Face Recognition  Signature Verification  Offline  Eigenface