Abstract

This paper explores the possibility of implementing face recognition systems directly into wavelet based compressed domain. This is accomplished by stopping the decompression process after entropy decoding and providing the entropy points to face recognition systems as input. A novel approach for efficient face recognition in compressed domain has been implemented using 2-dimensional Canonical Correlation Analysis. CCA is a powerful multivariate analysis method and hence a powerful feature projection approach for compressed facial images based on CCA is proposed. Matching of image data is done by Mode based Matching method. The experimental results proved that the proposed method considerably improves the recognition rates and also reduce the computational time and storage requirements.

References

- H. Hotelling, 1936, Relations between two sets of variates, Biometrika 28, 321.
- W.Yang , Z. Lei, J. Sang, 2008, 2D-ED face matching using CCA method, National Laboratory of Pattern Recognition Institute of Automation, Chinese Academy of Sciences, Beijing.
- S.Arockiasamy, Menila James, 2011, Face Recognition in compressed domain based on

Index Terms

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Keywords

Face recognition  compressed domain  wavelet transform  Canonical Correlation Analysis (CCA)