

Abstract

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combining features using principle component analysis independent component analysis for image retrieval

research work shows that independent component analysis (ica) principle component analysis (pca) are good variants of projection pursuit. in the present paper, a comparison between combined using pca and uncombined features for content based image retrieval (cbir) is performed. the paper benefits from ica by using a hierarchical self-organizing map (hsom) for better images clustering. to assess the performance of the proposed technique, two features provided by mpeg-7 are used, color structure (cs), edge histogram (eh) are used. research work showed that these two features give better performance among other mpeg-7 features such as color texture features. the proposed technique is applied to two datasets. the results showed that using ica in the combining process gives better performance than pca, pca gives better performance than uncombined features