Abstract

In this paper, a new image indexing and retrieval algorithm using multi-resolution local binary patterns (LBP) with joint histogram is proposed. The existing LBP extracts the relationship between the center pixel and its surrounding neighbors in an image. The proposed method encodes the joint histogram between the multi-resolution LBPs which are calculated using Gaussian filter bank with different standard deviations. The retrieval results of the proposed method have been tested on OASIS magnetic resonance imaging (MRI) database. The results after being investigated shows a significant improvement in terms of precision as compared to LBP and other LBP like features.
- Subrahmanyam Murala, R. P. Maheshwari, R. Balasubramanian, "Directional Binary Wavelet Patterns for Biomedical Image Indexing and Retrieval," Journal of Medical Systems, 36 (5) 2865-2879

**Index Terms**

**Computer Science**

**Image Processing**

**Keywords**

Local Binary Patterns (LBP); Texture; Pattern Recognition; Feature Extraction; Biomedical Image Retrieval.