

عنوان مقاله:

A Rank based Ensemble Classifier for Image Classification using Color and Texture Features

محل انتشار:

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خلاصه مقاله:

This paper presents a color image classification method using rank based ensemble classifier. In this paper, we use color histogram in different color spaces and Gabor wavelet to extract color and texture features respectively. These features are classified by two classifiers: Nearest Neighbor (NN) and Multi Layer Perceptron (MLP). In the proposed approach, each set of features are classified by each classifier to generate a rank list of length three. Therefore, we have some rank list for different combination of feature sets and classifiers. The generated rank lists present an ordered list of class labels that the classifier believes the input image is related to those classes in order of priority. To combine the outputs (rank list) of each classifier, simple and weighted majority vote are used. Experiments show the proposed system with weighted majority vote achieves a recall and precision of 86.2 % and 86.16 % respectively. Our proposed system has higher efficiency in comparison of other system

کلمات کلیدی:

color histogram; content-based image retrieval; ensemble classifier; gabor wavelet; image classification; majority vote

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