Abstract

This paper presents the comparative study among HSV and YCbCr color models in the classification of food grains by combining color and texture features without performing preprocessing. Also, the paper deals with the effect of training set, block size and K-value in the process of classification. The proposed method is performed in two phases; the feature
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extraction phase and classification phase. The K-NN and minimum distance classifiers are used to classify the different types of food grains using color, local and global features. The classification of food grains involves the computation of features locally and globally using the Haralick features and the cumulative histogram respectively. The non-uniformity of RGB color space is eliminated by HSV and YCbCr color space. The good classification accuracy is achieved using both the color models.

Reference

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- Sanjivani Shantaiya, Mrs.Uzma Ansari. Identification of Food Grains and Its Quality Using Patten Classification. Special Issue of IJCCT Vol. 2 Issue 2, 3, 4; 2010 for International Conference

Index Terms

Computer Science
Pattern Recognition

Key words

Feature Extraction
Co-occurrence

Matrix

Global Features

Cumulative Histogram

RGB

HSV

YCbCr color models