IMAGE SEGMENTATION USING COLOR AND TEXTURE FEATURES (MonPmPO3)

Author(s) : Ediz Polat (Kirikkale University, Turkey)
Mustafa Ozden (Kirikkale University, Turkey)

Abstract : This paper describes a new color image segmentation method based on low−level features including color, texture and spatial information. The mean−shift algorithm with color and spatial information in color image segmentation is in general successful, however, in some cases, the color and spatial information are not sufficient for superior segmentation. The proposed method addresses this problem and employs texture as an additional feature. The method uses wavelet frames that provide translation invariant texture analysis. The method integrates additional texture feature to the color and spatial space of standard mean shift segmentation algorithm. The new algorithm with high dimensional extended feature space provides better results than standard mean shift segmentation algorithm as shown in experimental results.