

عنوان مقاله:

Using GLCM and Gabor Filters for Classification of PAN Images

محل انتشار:

بیست و یکمین کنفرانس مهندسی برق ایران (سال: 1392)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Fardin Mirzapour - Faculty of Electrical and Computer Engineering, Tarbiat Modares University, Tehran, Iran

Hassan Ghassemian

خلاصه مقاله:

In the present research we have used GLCM and Gabor filters to extract texture features in order to classify PAN images. The main drawback of GLCM algorithm is its timeconsumingnature. In this work, we proposed a fast GLCM algorithm to overcome the mentioned weakness of traditionalGLCM. The fast GLCM is capable of extracting approximatelythe same features as the traditional GLCM does, but in a really much less time (in the best case, 180 times faster, and in theworst case, 30 times faster). The other weakness of the traditional GLCM is its lower accuracies in the region near theclass borders. As Gabor filters are more powerful in border regions, we have tried to combine Gabor features with GLCM features. In this way we would compensate the latter mentionedweakness of GLCM. Experimental results show good capabilities of the proposed fast GLCM and the feature fusion method in classification of PAN images

کلمات کلیدی:

Texture feature, GLCM, fast algorithm, Gabor filters, image classification, satellite images

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