

Automatic Moment-Based Texture Segmentation

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Abstract : An automatic moment-based texture segmentation approach is proposed in this paper. First, we describe the related work in this computer vision domain. Our texture feature extraction, the first part of the texture recognition process, produces a set of moment-based feature vectors. For each image pixel, a texture feature vector is computed as a sequence of area moments. Second, an automatic pixel classification approach is proposed. The feature vectors are clustered using some unsupervised classification algorithm, the optimal number of clusters being determined using a measure based on validation indexes. From the resulted pixel classes one determines easily the desired texture regions of the image.

Keywords : image segmentation, moment-based, texture analysis, automatic classification, validation indexes

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