Abstract

Content-Based Image Retrieval (CBIR) systems help users to retrieve relevant images based on their contents such as color and texture. In this paper, a study has been made on the application of Gabor Wavelet Transform for texture classification at different values of the number of scales (S) and the number of orientations (K). Texture features are found by calculating the mean and variation of Gabor filtered image. The image indexing and retrieval are conducted on natural images. Based on experiments, Gabor wavelet at five scales of frequency and four orientations gives better performance than the other commonly used scales and orientations i.e., three scales and four orientations, three scales and six orientations, four scales and five orientations, four scales and six orientations and five scales and six orientations.

References

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Comparative study on Content based Image Retrieval based on Gabor Texture Features at Different Scale

Comparative study on Content based Image Retrieval based on Gabor Texture Features at Different Scales of Frequency and Orientations

Index Terms

Computer Science

Pattern Recognition

Keywords

CBIR  Gabor wavelet  Canberra distance  Texture