Abstract

Texture features have long been used in remote sensing applications for representing and retrieving regions similar to a query region. Various representations of texture have been proposed based on the power spectrum, grey-level co-occurrence matrices, wavelet features, Gabor features, etc. Analysis of several co-occurring pixel values may benefit texture description but is impeded by the exponential growth of histogram size. Multidimensional histograms can be reduced by using methods like linear compression, dimension optimization and vector quantization. Experiments with natural textures showed that multidimensional histograms provided higher classification accuracies than the channel histograms and the
Texture Analysis Using Multidimensional Histogram

wavelet packet signatures

References

- “Reduced Multidimensional Co-Occurrence Histograms in Texture Classification”, Kimmo
- D.-C. He and L. Wang, “Unsupervised Textural Classification of Images Using the
Texture Analysis Using Multidimensional Histogram


Index Terms

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Texture classification  multidimensional histograms  vector quantization
self-organizing map

feature selection