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Abstract

We have considered a texture to be a stochastic, possible periodic, two-dimensional image field. We have used Markov Random Fields as texture models. We considered binomial model, where each point in the texture has a binomial distribution with parameter controlled by its neighbors' and the number of gray levels. The parameters of the Markov random field control the strength and direction of the clustering in the image. The power of the binomial model to produce blurry, sharp, line-like, and blob-like textures is demonstrated. Generated

textures are then estimated using one of the approximated Maximum likelihood estimation called as Coding method.

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Index Terms

Computer Science

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Keywords

Binomial model Maximum likelihood estimation Coding method Markov random field

texture

stochastic

