Texture Classification using LBP Descriptors and kNN Algorithm

Ştefania BĂRBURICEANU, Patricia CHIRIL

Abstract

Image representation using local descriptors presents the advantage that there is no need for a previous step of segmentation in image processing and also it provides invariance to rotation, scale and illumination conditions. Using Local Binary Patterns (LBP) descriptors to characterize images and in our case textures, one can further apply supervised or unsupervised classification methods for image classification and recognition. Our work shows that a simple supervised classification method, k-Nearest Neighbors algorithm, gives good results when used with LBP descriptors.

Biography

Ştefania BĂRBURICEANU is a student in the 4th year at the Faculty of Electronics, Telecommunications and Information Technology - Technical University of Cluj-Napoca, Romania. Her interests are presently focused on developing knowledge in image processing and programming.

Ştefania BĂRBURICEANU, 4th year student
Technical University of Cluj-Napoca
Faculty of Electronics, Telecommunications and Information Technology
26-28 George Barițiu Street, Cluj-Napoca, ROMANIA
E-mail: stefania.barburiceanu@gmail.com
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