

Abstract

Image mining is generally described as the process of extracting valuable information from a large database of images. One very important step in image mining is a process called feature extraction. Feature extraction is the process in which features within an image are found in order to do various operations like classification, object recognition, image segmentation, and texture analysis. There is an abundance of feature extraction techniques varying from complex, to very simple. One simple, but powerful, method of feature extraction is called Local Binary Patterns (LBP) which was first proposed by Ojala in 1996. Within this lecture, the logic and methodology behind LBP will be discussed along with some more recent variations of the original LBP algorithm. The feature vector that is extracted using LBP can be utilized in a variety of ways and a few of them are discussed within this lecture including a classification application. Even though LBP is logically and computational simple when compared to other methods, it is shown to be very powerful in a number of applications and feature extraction.