Abstract

Often theft in the campus area is not solved who the culprit is due to the lack of adequate surveillance cameras. Thieves usually disguise themselves like university students or staff. A system is needed to recognize anyone who enters a room, in order to secure the items in it. To support this facial recognition research, the authors propose to use a Histogram of Oriented Gradient (HOG) and Bag of Words (BOW). Each image will be cropped randomly, then the image cut is given to the HOG feature extraction to get the vector feature. Then the vector features will be given to the K-means clustering algorithm and then grouped into sections through Bag of Words.