

Abstract

Observations through the image became an alternative to calculating the number of visitors. The system will do object tracking, as well as counting on that object. One of the algorithms used to construct the counting system is the Histograms of Oriented Gradients (HOG). With the use of multilevel HOG is expected to improve detection performance on the object of observation. Object tracking is performed by observing the upper part of the human body, namely the head and shoulders. Training data consists of 100 image of the top of the human body, as well as the 100 random images, including a lower part of the human body. In the testing phase, carried out tests on some image object number varies. The results showed no background images produces better accuracy, ie 82.54%.

Keywords: *image processing, head-shoulder detection, multilevel HOG detector, SVM, people counting.*