ABSTRACT

Video surveillance is often not clearly show the human object to human vision . It would be fatal when the video monitors used in the security system. To assist human vision on video surveillance, computer systems are expected to be able to detect where the human in the video surveillance without false detection . False detection can be reduced by using False Object Detection Algorithm. So, in this final project, I will use Double False Object Detection Algorithms in Real - Time Human Detection which is ever used by Jianpeng Zhou and Jack Hoang .

This method uses two algorithms False Object Detection which is conducted by both Blob Tracking. First False Object Detection is to reduce the error detection by the movement of other objects very quickly as the light changes, movement of the object that suddenly fell and static object like a statue. The way to do this is by calculating the intersection of two pixel sets per blob frame. Second False Object Detection is to reduce the false detection by background movement like tree shaking, bush shaking, etc. How to do this is make a comparison between the color of blob object in and the larger ROI. The main objective of Double False Object Detection is to perform filtering on false human detection, so that more accurate detection results.

Toughness of the system tested in several settings and scenarios. The test results prove that the Double False Object Detection Method enhances the accuracy of human detection system up to 58.45% from 38.10% for classification detection system using the Histogram of Oriented Gradient (HOG) without Double False Object Detection method until final results are 96.55% for classification detection system using HOG with Double False Object detection method.

Keywords: *false object detection, blob tracking, real-time human detection, histogram of oriented gradient*