

Abstract

People Counting can be done manually by humans eyes. However, in some cases, technology is needed to count the number of people, such as the crowd, accident victims, and management event. The writer builds a system that can count the number of people who are in a crowd using drone. Training datasets come from images taken using a drone which is then cropped according to the head and not the head (ball, shoulder, leg, trash can, ect.). The size of each training dataset has a ratio of 8:10. The testing dataset used is a 960x540 pixel resolution video with 24fps framerate. The feature extraction method to be used is histogram of Oriented Gradients (HOG) and Local Binary Pattern (LBP). The classification algorithm used is the Support Vector Machine (SVM) algorithm. System performance has an average accuracy value of 3 test scenarios, i.e. 86 %.

Keywords: crowd, drone, feature extraction, HOG, LBP, classification, SVM