

ABSTRACT

Nowadays, utilizing surveillance camera was very popular because of everybody needs it and has many usefull as a monitoring and as a part of security system at home, office, and manufactory. The existing surveillance camera using computer as a control system and as a storage so that need a high cost for implementation..

This surveillance camera using image processing on Raspberry Pi model B combined with picamera using the pedestrian detector method which can detect the presence of human beings who stand upright with the description of the head, two arms, torso and two legs. Aided motion system using rail and servo motors using microcontroller base atmege Arduino Uno to be able to move in the room has installed rail so that it can monitor the entire of the room.

With the implementation of pedestrian detector using Raspberry Pi 2 with picamera modules have optimal results in the tests performance that object standing upright and objects within approximately 5 meters with results of 100% will be detected in the system. But for the application of methods pedestrian detector that running in the raspberry pi using picamera has a delay time which had an average of 2.35 seconds, where the delay of it would be difficult to detect objects that moving faster.

Keywords - Raspberry Pi, Computer Vision, Camera Supervisor