ABSTRACT

House is a place for human beings to live their lives. Beside, house can be used to socialize with the society. In this rapid technology development, house must already have security system to prevent from the crimes. One of the innovations in the daily life is home automation which enables controlling the doors automatically.

RGB-D camera is a device which used to detect human body movements that can be predicted through the support vector machine algorithm. The result of human body movement can be used as home automation inputs for security system.

In this final project, a security system analysis has been carried out which is beneficial for the users in maintaining the security systems from the crimes through combining the RGB-D Camera and Skeleton Tracking which is classified by using Support Vector Machine method. The result shows that the optimal data resulted through 1 meter distance with 1005 accurate, in the distance of 2 meters, the accuracy is 91% and in 3 meters obtained 81% accurate then for testing the variable value of C = 2 obtained optimal data with 92% accuracy while the higher C value causes the obtained accuracy value decreased..

Keyword : *home automation, activity recognition, support vector machine.*