ABSTRACT

Nowadays, the development of security technology very rapidly. Including the increasing number of software development security technologies in relation to further enhance the level of security in an agency that is commonly known as standard operating procedure (SOP) security. One of them is now increasingly being developed is the use of security technologies help of computer-based security automation. The object recognition based on images captured by auxiliary devices, such as for example CCTV cameras, camera Kinect, etc. Observed object can later be objects moving / movement. Figure commonly referred to as the silent image (static). One technique that can be used to detect movement is by comparing between the frames using the *Normalized Sum-Square Different (NSSD) method*.

The use of image acquisition techniques have become essential when already implementing automation systems and computer-based security cameras, for example, on the application of safeguards in institutions or government agencies in which there are valuable objects with high historical value. Safeguarding against valuable objects can be done using camera technology automatically by performing interference detection intruder approaching sensitive areas predefined security against these objects.

In this paper, we have analyzed the intruder detection system using the Sum-Square Different Normalize and implement them into the form of software that can detect possible intruders object by doing some test scenarios.

The results of the testing of the system is found in the use of this method is accurate with the average value is 77.81 frames per second and also the system is not affected to any kind of resolution due to the NSSD process of normalization process is carried out in accordance with the number of input resolution used. Ideal conditions are testing the system is in the room with the object of observation that is not reflective or glossy.

Keywords: *NSSD (Normalize Sum-Square Different), Early Warning System, Kinect Camera, Depth Frame*