ABSTRACT

Theft is a problem that often occurs, when there is no supervision of a room or goods that have important value for the owner, we cannot monitor the conditions that occur if there is no supervision this is often an obstacle. Supervision can be done using a Closed Circuit Television (CCTV) surveillance camera. But CCTV camera systems can only monitor passively. To prevent illegal actions such as theft, or even the prohibition of entering certain areas, a system that can identify if there is an intruder, can automatically send notifications directly to the user. Approaches that can be taken such as the detection of human objects via a webcam connected to the Raspberry Pi, then send notifications via mobile phone.

The development of detecting human objects is always examined as a form of security or supervision. Previous research on motion detection applications using the method (background subtraction) as an anticipation (visual hacking) produces system output in the form of notifications via email. In this thesis, the system detects human objects using the method (Haar-Cascade Clasifier) as data processing to be able to detect human objects in an image. The results obtained from this system of human objects can be recognized in an image, and then a notification is sent with (Mobile Phone).

In designing the system that has been made and tested with several scenarios. Obtained system analysis data, where the system gets good results in terms of accuracy with some accuracy values such as the accuracy of distance variables and the number of objects of 82% to 94%. This is good enough where the level of accuracy expected by the authors in this study is more than 80%.

Keywords: *Haar-Cascade Classifier, human object detection, Raspberry PI, notification system.*