ABSTRACT

This Security System based was built on Raspberry Pi, it is equipped with picamera module, passive infra red sensor module to detect presence of human around, and gsm modem to send notification SMS. Program for this system was built with Python programming language and Flask for web framework.

This system divided into two parts, application and alert. The Application serves as user interface, such as streaming video, view reports notification, watch recorded video, setting system configuration. Function of Alert is to send notification sms, record video, and input data system into database when human were detected around and the program is activated. This research focused on the application.

After doing design and implementation, next step is perform testing of application. Based on testing video streaming had average delay about 210 ms for lowest resolution and fps to 1789 ms for highest resolution and fps, CPU usage is high at about 98 percent.

Keywords: Raspberry Pi, picamera, Python, Flask, PIR