ABSTRACT

The security system uses cameras lately increasingly widespread use. The goal is to monitor the situation around from one place to facilitate the direct monitoring . However , to have a monitoring system that requires a relatively expensive cost , especially the cost of buying the hardware and installation services . Monitoring is usually only done offline or locally on a particular scope . On the other hand the development of mobile devices is rapidly increasing and is supported by more and more Internet connections makes this device seems to be a must-have item . Because in today's era of information technology and the need for rapid communication of information and up to date information is needed in order to support daily activities . And to reduce the problem makadirasa need to build mobile applications that are able to Cam House - monitoring somewhere and can be accessed from anywhere with an internet connection harness .

In this final project designed a security system at home that is client - server . Client side created a mobile application that can display live video stream captured by the camera is a webcam on the server , controls the snapshot feature , and video recording . Besides, the mobile application can also receive notifications when motion detection feature detects the movement of the system .

In practice , the quality of the live video stream is calculated by computing the PSNR . Values obtained can be tolerated in the amount of 23.75 dB . Motion detection performance is relatively good , because it can detect objects at speeds of $\pm$ 0.5m / s , $\pm$ 1m / s , and $\pm$ 2m / s with different levels of light intensity . On the other hand based on the beta testing , android apps , web , and PC - Server that made the security system goes well as expected in the absence and based on alpha testing , the application of the three scores relatively well from the respondents both in terms of functionality , appearance , and needs .

Keywords : *Monitoring, Online, Mobile, Server.*