ABSTRACT

Investigative monitoring is one of the human jobs that can be done by robots to assist humans in doing high-risk work. This type of work requires quick reactions in order to avoid enemies in areas deemed dangerous. Based on this, the mobile robot can be used as a remote monitor to minimize the risks posed during dangerous conditions such as when monitoring terrorist activities. However, there are other problems, namely the need for adequate picture and video quality and work in real time when monitoring.

In this Final Project, a mobile robot is designed that is equipped with a camera module to be able to monitor the area around the mobile robot in real time as well as a GPS module to determine the location of the coordinates of the mobile robot. In addition, mobile robot use USB Modems and Raspberry Pi as networks connected to mobile robot so that mobile robot can be controlled by smartphone. Through this Final Project, network performance and image and video quality measurements for various conditions are measured

Keywords: Mobile Robot, security, remote monitoring.