802.11b-based Video Monitoring System

Project code: LCT1-04
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Overviews

The aim of the project is to build a monitoring server in a wireless system, which can provide an updated image or live video of the monitoring target, so that the client can keep track of it everywhere by using any computers or mobile phones that can access to the internet.

The objective of the project is to setup the server on a Linux-based computer. The server program is made small enough in order to be ready for implementation on an embedded stand-alone Linux system. The system is divided into server and client programs. The server program responses for capturing images and act as a web server. The client program is written by using Java Applet. In order to run the Applet, the user needed to install Java Runtime version 1.4 or above. The Applet will be downloaded and run in the Internet browser. Then, the live video will be shown on the screen, the user can modify the frame rate, activate motion detection, recording the video into local hard drive, etc.

Features

- Up to 5 frames/sec
- Motion Detection
- Live & schedule recording
- Password protection
- Various bandwidth
- Mobile phone accessiable
**Results**

**Main Links:**
1. A CGI program for changing password
2. Current time
3. Logout button
4. Camera button

**Desktop User**

1. Display the live video
2. Choose connection speed
3. Motion detection setting
4. Live & schedule recording setting

**Mobile Phone User**

We successfully implemented the web server which runs in Linux operation system with small size and it is ready to be used in embedded system. The web server is responsible to capture the real time image and to be accessed by client with web-browser, the java applet is responsible to provide real time image, motion detection, real time recording and schedule recording.

The whole video monitoring system can be implemented into standalone system successfully in software level. The server program and capture program can be re-compiled and installed in the embedded system on the board.