

Abstract

Video Telepresence: A Remote Control Camera

By

Vartan Nazarian

In this report the design and implementation of a prototype surveillance system which can be remotely controlled over the Internet is described. The hardware module responsible for rotating the camera in two directions, capturing the video and audio and performing other functions of the camera is described. The application running on the local client written in Microsoft Visual C++ interacts with the user through a Graphical User Interface., controls the hardware, and communicates with the Internet service provider is described. A server application written in Java responsible for creating a communication path between the local and remote clients is given. An applet written in Java allowing a user to remotely control the camera and monitor the location over the Internet is implemented. An ideal system is discussed, however, it is not implemented because of the high cost. Many areas of Engineering and Computer Science are covered namely electronics, mechanics, serial communication, video capturing, multithreading, VC++, Java, file transfer protocol and socket communication

