



Volume 2, Issue 1, January 2012

ISSN: 2277 128X

International Journal of Advanced Research in Computer Science and Software Engineering

Research Paper

Available online at: www.ijarcsse.com

Concept of Remote controlling PC with Smartphone Inputs from remote place with internet

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Abstract: → This paper represents how your PC can be controlled from remote place with your smartphone device with the help of Internet. It means the monitor of PC will be seen in mobile. It turns your phone into a wireless keyboard and mouse with touchpad, using your own wireless network. This application can be performed on android based mobile. It requires server application for your computer. It requires device running on the Android operating system with some sort of wireless connection between them. By getting IP address from the PC and directly browse it on mobile phone. The PC screen will be access on the mobile. A functioning wireless network to which your computer is connected or not in between mobile and PC. Another way to browse the PC on mobile by assigning real IP to the PC and make the PC web hosting server by DNS entry into ISP provider. A gateway of ISP and real IP can be easily available from ISP and purchasing domain name from market. In the control panel of domain you can assign your IP address and put DNS entry into it. On mobile by accessing domain name or real IP on application server using browser which is installed on mobile. Access the PC directly into the mobile can be able to access its functions by mobile keys and using inbuilt keyboard. The beauty is that PC is connected with the internet and mobile is also connected with internet by its network facility due to sim card. Mobile user can access information from PC on remote place due to the internet connection. Operations can be controlled by mobile remote device of PC. Accessing input controls of PC like keyboard and others can be done by now mobile device. Integration of mobile & PC can be used to run the applications. Utilization of the database of PC can be used for doing operations on PC like sending sms or video files by accessing the information from Mobile to PC. Operations will be processed on the CPU of PC and output will be send to the mobile for executing sms using simcard of network operator. A central database server is hosted on the real IP with particular domain name. A web hosting server is based on windows with IIS and apache. It supports web applications with database for storing the web pages. On Mobile applications retrieves the required data information in certain time interval by connecting with the web server. Able to view your phone's screen on your computer monitor which is great for: putting your Android notifications right along side other notification boxes on your monitor, using it like an on-monitor caller ID, and taking screenshots and screen casts. Remote keyboard/mouse control is great for inputting data on the tiny screen without needing to peck at the on-screen keyboard. The signals from the Link app are sent to the hockey puck-sized Logitech hardware via a wireless home network. The puck then converts the commands into the appropriate infra-red signals used by most remote controls to communicate with home entertainment gear such as surround-sound receivers.

Index term → Remote Control , Mobile Server , Client/Server, Web Server, Central Database Server, IP, DNS, Web hosting. Mobile Computing, Mobile Application

I. Introduction

A **universal remote** is a remote control that can be programmed to operate various brands of one or more types of consumer electronics devices. Low-end universal remotes can only control a set number of devices determined by their manufacturer, while mid- and high-end universal remotes allow the user to program in new control codes to the remote. The world's first remote controls were radio-frequency devices that directed

German naval vessels to crash into Allied boats during WWI. In WWII, remote controls detonated bombs for the first time. The end of the great wars left scientists with a brilliant technology and nowhere to apply it. A universal remote can be a fairly complex procedure, it is most often performed by technically-minded individuals, although non-technical users can often operate the remote after it has been programmed. IR learning remotes can learn the code for any button on many other IR remote controls.

This functionality allows the remote to learn functions not supported by default for a particular device, making it sometimes possible to control devices that the remote was not originally designed to control. Touch Screen remotes feature an LCD screen that can be either monochrome or full color. The "buttons" are actually images on the screen, which, when touched, will send IR signals to controlled devices. Some models have multiple screens that are accessed through virtual buttons on the touch-screen and other models have a combination of the touch-screen and physical buttons. Infrared light is in the invisible portion of the electromagnetic spectrum.

II Objective

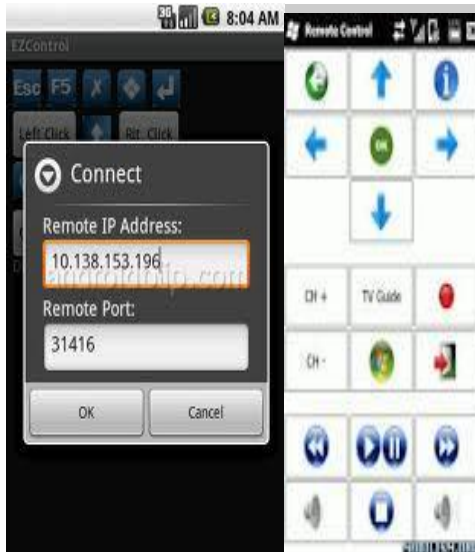
1. It operates PC from mobile device using Internet with key pad inputs of mobile.
2. It allows a power button, as well as a switch or series of buttons to select which device the remote is controlling at the moment.
3. It allows a numeric keypad for entering channel numbers and some other purposes such as time and date entry.
4. It allow selection of a particular set of codes (usually entered on the keypad) and allows user to cycle through the list of available codes to find one that matches the device to be controlled
5. It allowing the user to program command sequences to be sent with one button press. Programmable soft keys, allowing user-defined functions and macros.
6. It allowing the remote to be programmed to control new devices not already in its code list by IR coding
7. Accept infrared signals from any remote and transmit them to the device being controlled using repeater.
8. It allow the code lists programmed into the remote to be updated to support new brands or models of devices not currently supported by the remote

III Design & Explanation.

Mobile client application is required to install on Android phone. It supports most operation while making a PowerPoint presentation or playing media, such as play, pause, rewind, volume controls, etc. You could even use the file browser to open the PowerPoint for presentation. It requires also to server application on PC. . While

installing, you will be prompted to set a password for connecting to the server from your phone. The same is on the phone side. You can also change this password later by right clicking the server icon and selecting "Change password". On mobile phone It will automatically search for a server (if not tap up the Menu option and select Find Server), then enter the password to connect your Android phone to your computer or laptop. The devices must be connected to the same Wireless network. Once the devices are connected, you can open the file browser from your Android phone and start controlling from mobile. For more controls, you need to bring up the virtual keyboard by tapping on the keyboard icon. Pushing a button on a remote control sets in motion a series of events that causes the controlled device to carry out a command. The process works something like this: You push the "volume up" button on your remote control, causing it to touch the contact beneath it and complete the "volume up" circuit on the circuit board. The integrated circuit detects this. The integrated circuit sends the binary "volume up" command to the LED at the front of the remote.

The LED sends out a series of light pulses that corresponds to the binary "volume up" command. An IR remote control (the transmitter) sends out pulses of infrared light that represent specific binary codes. These binary codes correspond to commands, such as Power On/Off and Volume Up. The IR receiver in the TV, stereo or other device decodes the pulses of light into the binary data (ones and zeroes) that the device's microprocessor can understand. The microprocessor then carries out the corresponding command. Universal learning remotes require a computer to be connected. The connection is typically done via USB from the computer to mini-USB on the remote or the remotes base station. RadioShack, and other brands can be reprogrammed by means of an interface. Some models of the touch-screen remotes are programmed using a graphical interface program on a PC, which allows the user to customize the screens, backgrounds, buttons and even the "actions" the buttons perform. The dongle is required to convert the electrical control signals from the phone into infra red signals that are required by most home audio visual components for remote control. However it is also possible to implement a system that does not require a dongle. Such systems use a standalone piece of hardware called a 'gateway', which receives the electrical control signals from the smart phone in Bluetooth or wi-fi form and forward them on in infra red form to the components to be controlled. It delivers a customized electronic program guide (EPG) for your personal TV channel lineup. Simply identify your cable/satellite provider, and will find all your listings. From there you can quickly prune your guide to just show the channels and shows you like to watch, and hide all the rest.



Fig[1] shows the connection of PC with mobile with mobile inputs.

IV Result:→ Controlling of PC with Smartphone from remote place using internet with the help of Client / server mobile technology using 3 – tier concept. Virtual keyboard of mobile can be handled to operate the functions of the PC. Server based concept is utilized to capture the screen on mobile from PC. IP is assigned to PC and can be accessed on mobile browser with the help of wireless router attached with dongle for the internet. The mobile device will work like a remote control for the PC

VI Conclusion

Smart phone and tablet universal remote software is usually highly customizable. As with traditional universal remotes some are programmed using the handset (phone/tablet) itself and others are programmed using a computer. remote control features, you can finally clean up your coffee table and put your extra remotes away in a drawer somewhere. Now your phone (or tablet) is your remote. At last your whole family (and even guests) will be able to figure out how to control all the different devices and inputs you have in the living room. A customizable remote control interface, where you decide exactly which buttons appear when you want them to. The dominant remote-control technology in home-theater applications is infrared (IR). Infrared light is also known as plain-old "heat." The basic premise at work in an IR remote control is the use of light to carry signals between a remote control and the device it's directing.

VII Acknowledgement

Authors acknowledge the financial support by Institute of Science & Technology for Advanced Studies & Research (ISTAR) V. V. Nagar for this work. I would like to thanks Dr Vipul Desai for his

support and guidance.

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