



RESEARCH OVERVIEW ON CENTRALLY CONTROL LAPTOP THROUGH MOBILE APPLICATION

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Abstract — As all are familiar with both mobile and computer like PC, Laptop etc. so there are various limited options available to the user when they are not connected to the PC to access their workstations.

We would like to share new technology which is controlling PC by mobile using arduino. So we are connecting mobile to PC by arduino so mobile phone works as remote interface.

This is involve design a new application that enables user to connect their workstation remotely by the use of arduino and Bluetooth technology. Once arduino and Bluetooth technology. Once the application installed computer user are likely successfully able to connect with their workstation and control it via mobile application.

Keywords-*component; Mobile Application, Arduino, Bluetooth, Communication protocol*

INTRODUCTION

As consumer electronics devices and personal computers have become inevitable part of our life. Similarly, mobile devices and computers like cell phones and Tablets are becoming more and more commonly used in our day to day life. Controlling consumer electronics devices and computers remotely is an important aspect of this technology. Today, we have universal remote control devices to control consumer electronic devices such as TV sets. Similarly, it is desirable to remotely control stationary desktop/laptop PCs and their applications. In this we will have view of a desktop in our mobile and can operate our PC through it. Our application will be primarily based on pocket wizard. The server side of the system runs on top of the Windows operating system and the client side is a cell phone with inbuilt Bluetooth technology. Its architecture is based on client-server paradigm. It consists of two parts: a server part and a client part. The server part runs on a desktop PC or laptop PC to be controlled remotely. The client part runs on a cell phone that can be easily carried by a user and that will act as the remote controller device for desktop PC and its applications. The server side of the system is capable of listening incoming connections, sending and receiving data, processing control, commands taking screenshots, modify applications.

Android Application which provide Voice Command, Shortcut Keys, Keypad to PC with the use of Arduino and Bluetooth. Users can easily operate their Pc while doing other tasks. This Android Application Support any operating system. How amazing would it be, if you can control your PC by mobile application using Arduino, without even messing with the touch-pad or keyboard, you could control the features, you can see video, surfing web browser or control music wirelessly.

1. This is application support any OS. When this application is in your android phone you not need to install any driver for support the application you just have to connect Arduino with pc that's it. The most of the task perform via Arduino.
2. You can use shortcuts like open Computer, open any file which is on your PC's desktop, and then you can write text, then surfing on web browser.

From the study of different papers some challenges will be:-

Challenges: Factors which are affect mobile application as a remotely control to laptop .That we have to program system in such a way that if we press 'G' in Mobile Application then Google tab is open on Laptop screen and we take more shortcut keys And also one more point that voice reorganization for this we not setup anything new for it like wise in previous system if voice command operate then it will do advice that check your

microphone system so in this mobile application we not need to do such things. And it support any operating application

LITRETURE SERVEY

In this section discussed the system Control PC by mobile using Arduino that consist of three major component Bluetooth HC-05, hardware interface module(Arduino PCB), male to male and male to female wires. This system is better from scalability and flexibility point of view then the commercial available PC control application. This application has been developed based on the android system. The interface card has been developed to accrue communication between the android user and user's pc. The application installed in user's Smartphone.

The Android application sends data to Bluetooth HC-05 then Bluetooth HC-05 receive the data and passes to the Arduino. After receiving the data processing program running on computer detects character across the serial port (USB) and controls mouse accordingly. Arduino board is Playing very important role in this application. It used to control the user's PC by using Bluetooth as well as Android application. Then we did patent search and find out 15 most related patents which related to our application. both the devices, in which actions and commands are translated on both the side and information is transferred in the form of data. Any person not needs to install any specific driver on laptop for support android application. Simple, we have to just connect Arduino with laptop via USB cable and also Bluetooth HC-05 connects to the Arduino that's it. And this Android application is support any operating system.

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, and controlling Mouse and Keyboard activity of Server computer etc. You could even support short-cuts such as type 'G' it will open Google window on laptop screen. And for developers if they want to do then they can code on their pc's screen by mobile applications.

WORKING AREAS

Client side application (Android phone) which is to be developed in android sdk. To establish connection between PC with mobile application by Arduino as well as Bluetooth HC-05 is used, in which information and commands are transfer, the flow of information is exchanged between any text document file also do coding by your android application on laptop's specific coding IDE using virtual keyboard.



(Fig-1 Android Application)

SYSTEM DESCRIPTION

The system has two parts, namely; hardware and software. The hardware consists of an embedded system that is based on Arduino board, a Bluetooth HC-05, and an Android phone. The Bluetooth Module provides the communication media between the user through the android phone and the system by means of voice command given to the android phone .Software application installed in the android phone that is connected through Bluetooth HC-05. The voice command as well as Character, Function key, Number key are converted to an array of string and the string is passed to Arduino Uno connected to it. Once the Bluetooth Module receives the message, the command

sent will be extracted and executed by the microcontroller attached to it and depending on the commands will function accordingly.



(Figure 2-Arduino board connect with Bluetooth Hc-05)

FUTURE SCOPE

Android application which provide many features like Voice Command, Shortcut Keys, Keypad to PC with the use of Arduino and Bluetooth. Users can easily operate their Pc by using this application. This Android application Support any operating system. This application gives you plenty of any operating system shortcut like ability to open Desktop, Start screen, open or close app, use Windows charm, search files, search settings, control media by increasing and decreasing volume.

CONCLUSION

Emphasizing security as a crucial part in today's hacking world, up gradations are done for locking devices. Making use of recent and advanced technologies has given a new dimension to the stated purpose. Computers and many other devices, including Smart phone can connect to the Bluetooth as well as Arduino. So we are concluding that the PC can control by Android application using Arduino and Bluetooth. User can operate any PC up to 7- 10 ft. And last this application is support any operating system. It provides an overall satisfaction to the user.

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