

# Bluetooth Mobile Phone Remote Control for PC

Akshata Ajit Nirvane, Sharmila Shankar Patil

Sharad Institute of Technology Polytechnic Yadrav (Ichalkaranji), Approved by AICTE ,New Delhi, Recognized by DTE, Mumbai  
Affiliated to MSBTE Mumbai, Jay Sangali Naka 416121(MH), India

Sharad Institute of Technology Polytechnic Yadrav (Ichalkaranji), Approved by AICTE ,New Delhi, Recognized by DTE, Mumbai  
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**Abstract:** *Bluetooth remote control applications include the use of mobile wireless devices in controlling other Bluetooth embedded appliances in close proximity to ensure the remote control of the device operation. Even though mobile wireless devices built with Bluetooth technology are almost everywhere into the hands of normal users, this use of Bluetooth mobile devices in providing remote control services is not commonly used, but were used has contributed to social services because of Bluetooth time and cost efficiency, popularity and portability.*

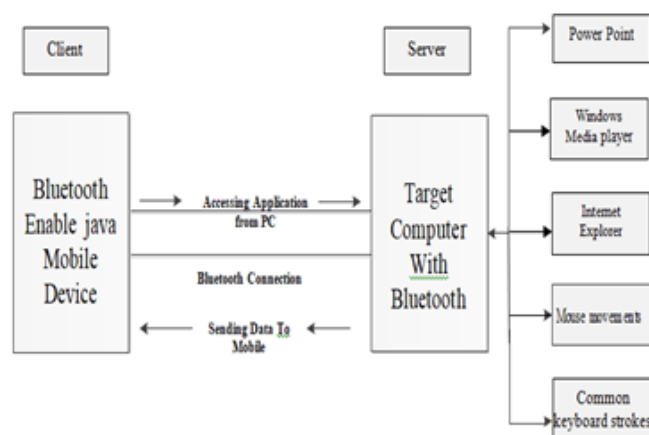
**Keywords:** Bluetooth, Remote, Phone, Embedded

## 1. Introduction

Now a days there are two ways to control the computer PowerPoint presentations by speakers while addressing the audience: The first method is a speaker or another person next to him has to manually press keyboard buttons or make mouse clicks. The second method is costly and it is the use of additional specific wireless computer hardware components to remotely control the system applications. These methods have different drawbacks .This Bluetooth Mobile Phone Remote Control For PC application will address the above issues, also insuring the remote control of the window media player using the mobile phone. With this people will be able to remotely launch windows media player, browse, and play items in its playlist.

Manual operation of electronic devices is challenged by an automatic and remote control. It creates both financial and time inconveniences for the users because they have to buy extra specialized hardware apparatus to control their computer. Here the problem of money and time consuming due to manual manipulation of computer operations or even having to buy additional hardware components. To overcome such problems, a new “Bluetooth Mobile Phone Remote Control for PC” model is proposed. This model helps to the users to turn their mobile phones into dedicated remote control of their computers. It saves both their time and money spending.

## 2. Block Diagram



**Figure 1:** Block diagram of Bluetooth Enables Mobile Phone Remoter Control for PC

## 3. Methodology

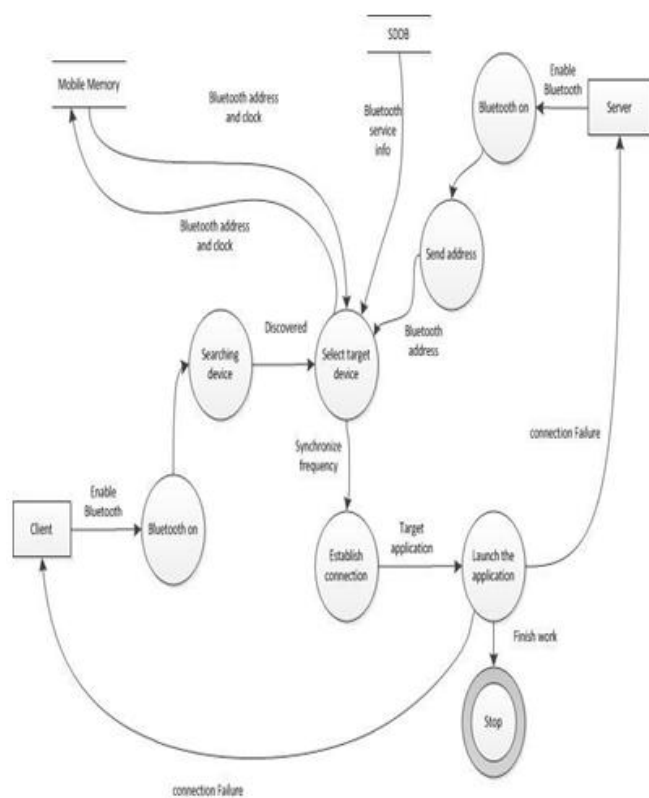
The purpose of the application is to provide the mobile users a service that facilitates them to access their remote PC's. The basic idea behind the paper is to bridge the communication gap between mobile users and the PC's. This type of service improves the capacity and features of mobile phone. With this type of function one can have a control over the remote PC in addition to accessibility features.

- When any new Bluetooth device is found, Service discovery may be initiated to determine which services offering, this is known as inquiry
- The inquiring Bluetooth device will receive the Bluetooth address of nearly found device during the inquiry.
- Other Bluetooth devices are identified to the inquiring device by Bluetooth address.
- Service Discovery Database (SDDB) contains service entries which contain service describing attributes.
- The Connected Limited Device Configuration (CLDC), when coupled with a profile such as the Mobile Information Device Profile (MIDP), it provides a solid Java platform for developing applications to execute on devices with

limited storage memory, processing power, and graphical capabilities.

- The client part will be implemented using j2me.
- The server part will be implemented using Java.
- How to control the movement of the mouse cursor and clicks. i.e. left , right
- Rotate and press of a mouse wheel. Control the keys of keyboard. Control PowerPoint presentation. Control windows and internet explorer. Restart , power off and log off the PC.
- Control windows media player.
- JSR-82 is a standard to develop Bluetooth application in Java. Defined key code assigned for each key in mobile phone.
- Robot class is used for automated testing of Java platform implementations.
- Record Management System stores all records, a record can contain a number, a string, an array, an image -- anything that a sequence of bytes can represent. ApplicationCanvas class provides the graphical attributes to interface. whenKeyIspressed() and whenKeyISReleased() methods are in Remote class.

#### 4.Data Flow Diagram



#### 5.Platform

J2ME (Java 2 Micro Edition) is an advanced technology in Java, developed with the Java Community Process Program. J2ME is a lower version of the Java API and Java Virtual Machine that is developed to operate within the limited resources available in the embedded computers and microcomputers. The Java Community Process Program used

two approaches to addressing the needs of small computing devices.

#### • Configurations

It is the Java run-time environment and core classes that operate on each device. A configuration states the Java Virtual Machine for a particular small computing device. There are two configurations.

#### • CLDC for handheld devices

The CLDC (Connected Limited Device Configuration) is developed for 16-bit or 32-bit small computing devices with limited storage memory. These devices have between 160KB and 512KB of available memory. Usually these are powered by battery. They use small- bandwidth network wireless connection. These devices use a stripped-down version of the JVM the Java Virtual Machine (KVM). These devices include pagers, personal digital assistants, cell phones, dedicated terminals, and handheld consumer device.

#### • CDC for plug-in devices

CDC (Connected Device Configuration) devices use a 32-bit architecture, have minimum 2 MB of memory available, and implement a complete functional JVM. CDC devices contain digital set-top boxes, home appliances, point-of-sale terminals, navigation systems and smart phones.

#### 6.Functional Requirement

Our application consists of two parts which are the client and the server. The client part will be developed using J2ME in cell phone and sever part will be developed using Java in target PC.

List of requirement	Description
Requirement 1: Open Bluetooth	The Mobile And PC Should open the Bluetooth on the Mobile side and on his PC side
Requirement 2: Search for the Bluetooth	The Mobile Should search for Bluetooth devices to find the PC Bluetooth
Requirement 3: Select the PC Bluetooth	In the mobile Bluetooth search, select the PC Bluetooth device
Requirement 4: Select Application	The List of applications appears at the mobile side then the user should select the appropriate application
Requirement 5: Send Action	By pressing buttons or typing in mobile side the user can send the action command to the PC side
Requirement 6: Receive Action	The PC should receive the Action or command
Requirement 7: Do Action	In PC side action is performed on the application according to user Action or Command
Requirement 8: Disconnect	By simply closing PC side or Mobile Side Application user can disconnect from the system
Requirement 9: Error Message	Suppose any application is not running to PC site then show the error message to the user

## 7. Conclusion

We know from experience that manual operation of electronic devices is challenged by an automatic and remote control model in terms of time. The Bluetooth Enabled Mobile Phone Remote Control For PC enables the user especially lecturers and conference speakers to use a phone to remotely control the PowerPoint, play the Winamp, browse the windows explorer, play the game, the model also smoothen home theatre provides remote control over windows media player by the use of the same handset. In the present application, we have controlled an application on a remote machine using the mobile phone. But the same can be maximized to control any computer on the network.

## 8. Future Scope

The future system enhancements are highly recommended to enhance the system allowing users to control more applications and providing unlimited control services over a specific application without eventual Bluetooth disconnections. Hence with this application in mind it is not difficult to imagine controlling huge computing clusters from anyone's fingertips anywhere, anytime.

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## Author Profile



**Ms. Akshata Ajit Nirvane** received the M.Tech. degree in Computer Science from JNTU Hyderabad in 2017



**Ms. Sharmila Shankar Patil** received the B.E. degree in Computer Engineering from Sharad Institute of Technology College of Engineering, Yadrav, in 2013