Abstract
This paper is based on the process to access the remote desktop of computer system using android mobile phones. This process will be carried out using Wi-Fi Network. A user will be able to access and manipulate the remote desktop of computer system using IP address provided by the network. There are several functions provided to quickly access the desktop of computer system. Also user can access android mobile phones on browser of remote desktop. It handles mobile phones camera, messages, music player and provides live images to browser. It supports various platforms like Windows, mac, Linux etc.

1. Introduction
Now, a day’s people used to have smart phones which provide us many facilities than earlier ones. In this paper, we describe the system which can provide access to remote computer within the Wi-Fi network and provide features like desktop access, viewing, accessing file. This paper describes android application design to control the remote desktop. Android application provides various packages for networking and it also provides high performance for android cellular mobiles. The security is maintained by providing IP address for authentication. In this system, user also perform reverse process for accessing android mobile phone on browser of remote desktop condition that must be followed are that version of android mobile phone is 4.1. In this system multiple mobile
phones are access this application on single browser but mobile device must have Wi-Fi and browser.

By using IP address of android mobile phone it connects multiple mobile phones using server and access a single browser. This remote access application that should be simple to set up, easy to use and free for commercial use. The scope of this system is within Wi-Fi area. This system will provide mobility for users for controlling their computer desktop over internet. This paper focuses on the control of android platform. This platform is open source.

2. Proposed Architecture

It describes architecture for remote controlling based on android mobile phones. There are different types of possibilities to establishing connectivity between the target PC and mobile client such as USB interface, java socket and android debug bridge client each of them has its own consequences describes architecture on remote controlling based on Wi-Fi.

Following fig1 shows architectural representation of connection in that user interface is client side android mobile phone. For connection to the remote desktop user needs IP address and port number provided by network. After establishing the connection between desktop and mobile user can handles the desktop using mouse also use keyboard for inputting text.

![Architecture Diagram](attachment:architecture_diagram.png)

**Figure 1: Architectural Representation of connection**

Server interface shows remote desktop on which if port no and IP address matches with mobile phone then connection is established. The sever interface uses Robot class for handling the hardware interface. This class is used to generate native system input events for the purpose of test automation, self-running, demos and other application where control of the mouse is needed. The primary purpose of robot is to facilitate automated testing of java platform implementations.
Client interface uses nano http server for accessing mobile device on remote desktop. It is lightweight http server designed for embedding in other applications. It has been released as open source and free software. Only one java file and java 1.1 compatible. Persistent connections support allowing multiple requests to be served over a single socket connection.

![Activity Diagram](image)

**Figure 2: Activity Diagram**

Fig. 2 shows activity’s performed in system. IP address and port number is must for establishing connection between client mobile and remote desktop. If IP address and port number is incorrect then connection is not established and client is invalid then control goes to server interface for reentering the IP address and port number.

If port number and IP address is correct then network identified the user is valid and connection is established between them. Client can updates the information in files and saves this details. After accessing the system client ends the session.

### 3. Design Of Proposed System

In this system there is two main modules and some sub modules. Each module describes its functionality and designing of the system. Following are two main modules:
A. Accessing Desktop:
This module describes the accessing remote desktop through android mobile phones. We need network for accessing remote desktop through android mobile phones. In this we have following sub modules:

- **Text inputting**
  This sub module describes about inputting of text into any type of text document. Using keyboard of android mobile phone user can inputting the text into text document.

- **Viewing**
  This sub module describes viewing of particular area. It means user clicks on any type of document and views the particular document.

- **Sharing**
  This sub module describes about multiple mobile phones can share or access single remote desktop.

B. Accessing Mobile:
This module describes the accessing of mobile on browser of remote desktop. It supports functionality that controlling device and capturing mouse or keyboard.

- **Viewing**
  This sub module describes viewing of android mobile phone on browser of remote desktop. It captures the live image of android mobile phones.

- **Text inputting**
  This sub module describes inputting the text in the form of message on browser of desktop. Last message sent from mobile that can access by the browser of remote desktop.

- **Clicking**
  This sub module describes about clicking means user can click on music player for playing song or previous song or next song etc.

4. Experimental Results
In experimental results, it shows the actual output or the result of the remote desktop access through android mobile phone system and vice versa. Following table shows input given by the user and corresponding output provided by the system to the user.

<table>
<thead>
<tr>
<th>User inputs</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP Address, port</td>
<td>User login to the system and connection is established.</td>
</tr>
<tr>
<td>User can move the cursor on mobile device</td>
<td>Position of Cursor is change on desktop</td>
</tr>
<tr>
<td>User can click anywhere on the desktop</td>
<td>Operation performed on desktop</td>
</tr>
<tr>
<td>User start the server of android mobile on reverse process</td>
<td>Browser of desktop provides live images</td>
</tr>
<tr>
<td>User click on music player of desktop browser</td>
<td>Access the music’s of mobile phone in browser of desktop</td>
</tr>
</tbody>
</table>
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5. Conclusion

We can use this system in colleges for sharing the remote desktop by student during practical’s. Suppose we deploy any application to any non-technical person & if the problem is arises then at that time it is not possible to go that place immediately. so in such case we simply tell him to on the hotspot & click on Connect button, then we can easily access persons laptop, so it saves time, money charge etc. As it supports multiple connections it can be used effectively for collaborative work. It can be used for educational purposes for example students in a distributed group can view the computer screen which is been manipulated by the instructor.

By using IP-Address of android mobile phones we can easily access android mobile phone on browser of desktop. It is remote access app should be simple to set up, easy to use, and free for non-commercial use. User can access remote desktop easily using android mobile phones and vice versa. The set up process is simple, taking roughly few minutes and little technical knowledge. it supports any operating system like windows, mac, Linux and blackberry etc. This system can be used for commercial or noncommercial purpose. It is open source platform. Multiple android mobile phones can access the single remote desktop, it provides high performance and provides better security using IP address provided by network. The system doesn’t require any complex software so it is easy to use and cost effective.

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