Abstract

Cellular Signal ECM System is employed to forestall mobile phones from receiving or transmission signals with the bottom stations. this technique effectively disable mobile phones at intervals the outlined regulated zones while not inflicting any interference to different communication means that. this technique will be utilized in much any location, however area unit utilized in places wherever a telephony would be notably turbulent like Temples, Libraries, Hospitals, Cinema halls, faculties & faculties. As with different radio ECM, Cellular Signal ECM System block mobile use by causing out radio waves on identical frequencies that mobile phones use. This causes enough interference with the communication between mobile phones and human activity towers to render the phones unusable. Upon activating Cellular Signal ECM System, all mobile phones can indicate "NO NETWORK". Incoming calls area unit blocked as if the mobile were off. Once Cellular Signal ECM System area unit turned off, all mobile phones can mechanically re-establish communications and supply full service. The activation and deactivation time schedules will be programmed with microcontroller. Real clock chip DS1307 is employed to line the schedule.
1. INTRODUCTION
As with alternative radio ECM, Cellular Signal ECM System block portable use by causation out radio waves on an equivalent frequencies that mobile phones use. This causes enough interference with the communication between mobile phones and human activity towers to render the phones unusable. Upon activating Cellular Signal ECM System, all mobile phones can indicate "NO NETWORK". Incoming calls area unit blocked as if the portable were off. once Cellular Signal ECM System area unit turned off, all mobile phones can mechanically re-establish communications and supply full service. The activation and deactivation time schedules are often programmed with microcontroller. Real clock chip DS1307 is employed to line the schedule. The aim of this project is to make the system which can forestall mobile phones from receiving or sending signals with the bottom stations. It is a tool won’t to forestall mobile phones from receiving or sending signals with the bottom stations. During this paper, we've to jam a mobile phone, all we tend to area unit developing a tool that broadcasts on the proper frequencies. Though completely different cellular systems method signals otherwise, all cell-phone networks use radio signals which will be interrupted. GSM, employed in digital cellular and PCS-based systems, operates within the 900-MHz, 1800-MHz and WCDMA 2100 bands in Europe and Asia and within the 1900-MHz band within this. Jammers will broadcast on any frequency and area unit effective against WCDMA, GSM and DCS. This project discusses the look and development of GSM Mobile transmitter and aims to gift an answer for the issues of occur through the mobile phone. the most construct of ECM is that the cathartic of same frequency that is mistreatment by mobile service.

2. PROBLEM STATEMENT
Cell phones are everywhere these days. It’s great to be able to call anyone at any time. Unfortunately, class room, shopping malls and Temples, Libraries, Hospitals all suffer from the spread of cell phones because not all cell-phone users know when to stop talking. While most of us just grumble and move on, some people are actually going to extremes to retaliate. The wide use of mobile phones could create some problems as the sound of ringing becomes annoying or disrupting. This could happen in some places like conference rooms, law courts, libraries, lecture rooms.

3. EXISTING BACKGROUND
The aim of this project is to build the system which will prevent mobile phones from receiving or Transmitting signals with the base stations. It is a device used to prevent mobile phones from receiving or transmitting signals with the base stations. In this paper, we have to jam a cell phone, all we are developing a device that broadcasts on the correct frequencies. Although different cellular systems process signals differently, all cell-phone networks use radio signals that can be interrupted. GSM, used in digital cellular and PCS-based systems, operates in the 900-MHz, 1800-MHz and WCDMA 2100 bands in Europe and Asia and in the 1900-MHz band within this. Jammers can broadcast on any
frequency and are effective against WCDMA, GSM and DCS. This project discusses the design and development of GSM Mobile jammer and aims to present a solution for the problems of occur through the cell phone. The main concept of jamming is the releasing of same frequency which is using by mobile service.

4. LITERATURE SURVEY

- **Dual Band Mobile Jammer for GSM 900 & GSM 1800, 2008:** Ahmed Sudqi Hussein Abdul-Rahman Ahmad Nasr Raja Mohammad-This Paper presents the design, implementation, and testing of a dual-band cell-phone jammer. This jammer works at GSM 900 and GSM 1800 simultaneously. This project went through two phases: Phase one: studying the GSM-system to find the best jamming technique, establishing the system design and selecting suitable components. Phase two: buying all the needed components, drawing the overall schematics, fabricating the PCB layout, assembling the devices, performing some measurements and finally testing the mobile jammer.

- **Mobile signal jammer using arduino, April 2013:** Raja Gopal MD. Imthiyaz Ur Rahman-As with other radio jamming, mobile jammer block mobile phone use by sending out radio waves along the same frequencies that mobile phones use. This causes enough interference with the communication between mobile phones and communicating towers to render the phones unusable. Upon activating mobile jammer, all mobile phones will indicate ”NO NETWORK”. Incoming calls are blocked as if the mobile phone were off. When the Mobile jammers are turned off, all mobile phones will automatically reestablish communications and provide full service. Mobile jammer’s effect can vary widely based on factors such as proximity to towers, indoor and outdoor settings, presence of buildings and landscape, even temperature and humidity play a role.

- **Cellular Signals Jamming System in 2G And 3G, April 2014:** Shantanu Krishna Mahato, C.Vimala-This project discusses the design and development of GSM Mobile jammer and aims to present a solution for the problems of occur through the cell phone. The main concept of jamming is the releasing of same frequency which is using by mobile service provider with noise so user equipment gets destruct. In this paper, we have to jam a cell phone, all we are developing a device that broadcasts on the correct frequencies. Although different cellular systems process signals differently, all cell-phone networks use radio signals that can be interrupted.

5. PROPOSED SYSTEM

- This system is mainly design to prevent mobile phones from receiving or Transmitting signals with the base stations.
- This Paper is designed and implemented for Mobile phone signal jammer for GSM, CDMA with prescheduled time duration using Mobile jammer and AVR.
The jamming device broadcasts an RF signal in the frequency range reserved for cell phones that interferes with the cell phone signal, which results in a "no network available" display on the cell phone screen.

- All phones within the effective radius of the jammer are silenced.
- The activation and deactivation time schedules can be programmed with a microcontroller.

### 6. SYSTEM DESCRIPTION

The Block diagram of system hardware is shown in the figure 1.

#### 6.1 Jammer Main Block

A jammer is basically a transmitter which continuously transmits the signal of frequency range used by mobile/pcs system, but this type of jammer has a drawback of continuous consumption of output power and continuous transmission of EMF signal in all directions without knowing that base station and mobile are trying to communicate with each other or not. It also creates unwanted interference with other type of communication. A jammer consists of IF Section, RF Section, Antenna and Power supply. IF Section generates the intermediate frequency signals, frequency range of Intermediate signal of hundreds of Kilohertz. With the help of IF Section, RF Section generates the RF Signal. The frequency range of RF Signal is the range of GSM Signal range. For transmitting the RF Signal we need Antenna. Antenna covers both uplink and downlink frequency range. IF Section consists of Triangular wave generator, RF Section consists of RF generator, RF power amplifier and Antenna. This system discusses the design and development of GSM Mobile
jammer and aims to present a solution for the problems of occur through the cell phone. The main concept of jamming is the releasing of same frequency which is using by mobile service provider with noise so user equipment gets destruct [2].

Mobile jammer circuit includes IF section, RF section, Power Amplifier and Antenna.

![Jammer Block](image)

6.2 Hardware Requirement
- AVR Controller-Atmega328
- 16x2 LCD
- RTC
- Keypad
- Relay
- IF Section Components
- Antenna
- RF Section Components
- Power Amplifier

6.3. Software Requirement
- Code written in ‘EMBEDDED C’
- Multisim 11.0
- Proteus 8 Professional
- Compile using ‘ARDUINO’
- Protel 99SE

6.4 Working Flow Chart
6.5 RF SECTION: This is the most important part of the jammer, since the output of this section will be interfacing with the mobile. The RF-section consists of three main parts: voltage controlled oscillator VCO, power amplifier and antenna.

6.6 ANTENNA: In order to have optimal power transfer, the antenna system must be matched to the transmission system. In this project, used two 1/4 wavelength monopole antennas, with 50 Ω input impedance so that the antennas are matched to the system. Here used monopole antenna since the radiation pattern is Omni-directional for DCS 1800 antenna, 3G 2100 MHz antenna and GSM 900 antenna. A monopole antenna is a class of radio antenna consisting of a straight rod-shaped conductor, often mounted perpendicularly over some type of conductive surface, called a ground plane. The driving signal from the transmitter is applied, or for receiving antennas the output signal to the receiver is taken, between the lower end of the monopole and the ground plane. One side of the antenna feed line is attached to the lower end of the monopole, and the other side is attached to the ground plane, which is often the Earth. This contrasts with a dipole antenna which consists of two identical rod conductors, with the signal from the transmitter applied between the two halves of the antenna.

7. APPLICATION

   i.) Cell phone jammers used in gas stations, can effectively avoid the fire caused by using mobile phones.
   ii.) Mobile phone jammers used in the military can effectively prevent leak important military secrets.
   iii.) Mobile phone signal blocker used in the examination rooms, can effectively prevent cheat through mobile communications.
   iv.) Cell phone signal blocker used in schools, can assure students to study without distraction and have a quiet rest.
   v.) Cell phone jammer used in theatres, can make everyone enjoy the program without disturb.
   vi.) Mobile phone jammer used in meeting rooms or training rooms, can assure the effective of the meeting.
   vii.) Mobile phone blocker used in cars, can effectively prevent the GPS tracking, etc.

8. CONCLUSION

Thus we are in developing stage of “Cellular Signal Jamming System for GSM, CDMA with Pre-Scheduled Time Duration” to prevent mobile phones from receiving or transmitting signals with the base stations. By this system we will deactivate all the mobile signals at any location. We will design a device that stops phone ringing in a particular time period. This device could be used in places where ringing is not desired at specific times, as these ringing may disturb people in such places.
9. REFERENCES


[5] Embedded System BY Mazzidi
