

GSM CONTROLLED ROBOTICS

ABSTRACT

In traditional methodology to find the motion of human we have some devices like video camera, radar, ultrasonic sensor etc. In case of video camera another human have to continuously monitor the video. If we use radar or ultrasonic sensor, we need a transmitter and a receiver. So these are high in cost and most of the jamming techniques are there to cheat (i.e. stealth bomber planes).

But there is another interesting sensing device used to find the motion of human (i.e.) PIR (Pyroelectric Infra Red sensor). It absorbs the infrared radiation (wave length of 9.4 micro meters) from the human body and creates a corresponding signal. As it has protection devices like lenses it is less suppose to be cheated. As this is sensitive only human body heat and frequency of radiation, this sensor can be used to find human up to 3 meter to 90 meter distance (using perfect Fresnel lenses). So it helps to find human availability beyond the barriers like walls and fire etc. It can be used as earth quake rescuer.

A robot car which is controlled by DTMF (Dual Tone Multi Frequency) using mobile phone (CDMA & GSM) having PIR sensor on this head is used to find human motion. By using the DTMF technique we can operate the robot car from anywhere in the world using mobile phone.

The mobile number of the receiver phone acting as a unique code of this DTMF circuit. By using the CDMA (Code Division Multiple Access) technique between mobiles we can do the operations more securely. Thus in military applications for searching terrorists in forest or to find them in a closed room for counting we can use this project.

EXISTING SYSTEM

- Bluetooth technology is used

DISADVANTAGE

- Using LabVIEW to control the navigation of the robot along a predefined path.

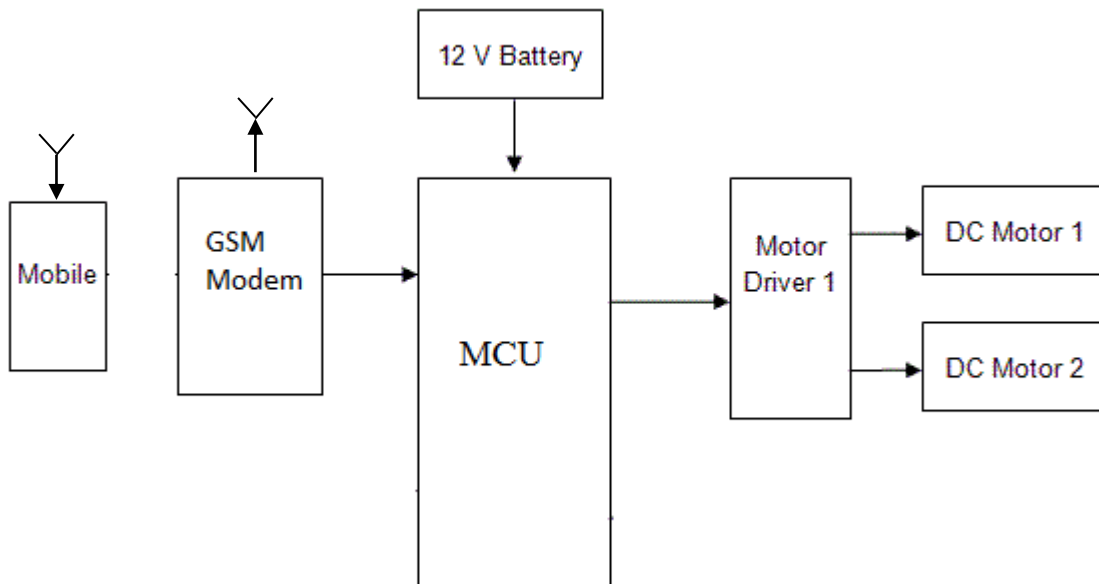
PROPOSED SYSTEM

PIR sensor is used for rescuing persons during earthquake also. And earth quake rescuing operation using PIR sensor is less in cost. The GSM can be used instead of CDMA which is highly secured and can't be easily jammed or tapped. But for military purposes this sensor is fixed with robot car. If this robot is have video streaming it can be operated anywhere in the world. Using image processing and artificial intelligence we can improve our project. And if weapons are fixed with this robot it is also able to tackle the enemies.

ADVANTAGE

- Thus we can save our Indian Soldiers work and their life
- Wireless control
- Surveillance System
- Vehicle Navigation with use of 3G technology.
- Takes in use of the mobile technology which is almost available everywhere.
- This wireless device has no foundation of range and can be controlled as far as network of cell phone

BLOCK DIAGRAM



HARDWARE REQUIREMENTS

1. Microcontroller
2. GSM Modem
3. Motor
4. GSM Modem.
5. Power Supply
6. Mobile
7. DC Motor

SOFTWARE REQUIREMENTS

- MCU COMPLIERS
- PROTEUS SOFTWARE

MICROCONTROLLER may ATMEGA,8051,PIC OR Arduino