GSM BASED DC MOTOR

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ABSTRACT

Global system for mobile communication (GSM) is a wide area wireless communications system that uses digital radio transmission to provide voice, data, and multimedia communication services. A GSM system coordinates the communication between a mobile telephones (mobile stations), base stations (cell sites), and switching systems. Each GSM radio channel is 200 kHz wide channels that are further divided into frames that hold 8 time slots. GSM was originally named Group Special Mobile. The GSM system includes mobile telephones (mobile stations), radio towers (base stations), and interconnecting switching systems.

Keywords: Modem, SIM, DC Motor, Relay, Waterpump

I INTRODUCTION

GSM (SMS) Controlled DC Motor is automatic control system which capable of receiving a set of command instructions in the form of Short message service and performs the necessary actions like Start , Stop and speed control. We will be using a dedicated modem/mobile at the receiver module i.e. with the robot itself and send the commands using SMS service as per the required actions. The mobile unit which is dedicated at the motor driver is interfaced with an intellectual device called Micro controller so that it takes the responsibility of reading the received commands in the form of SMS from the mobile unit and perform the corresponding predefined tasks such as motor start, stop, motor direction and speed control at different levels etc.

II RELATED WORK

We use a dedicated modem/mobile at the receiver module i.e. with the robot itself and send the commands using SMS service as per the required actions. The mobile unit which is dedicated at the motor driver is interfaced with an intellectual device called Micro controller so that it takes the responsibility of reading the received commands in the form of SMS from the mobile unit and perform the corresponding predefined tasks such as motor start, stop, motor direction and speed control at different levels etc. A GSM modem is a wireless modem that works with a GSM wireless network. A wireless modem behaves like a dial-up modem. The main difference between them is that a dial-up modem sends and receives data through a fixed telephone line while a wireless modem sends and receives data through radio waves. Like a GSM mobile phone, a GSM modem requires a SIM card from a wireless carrier in order to operate.

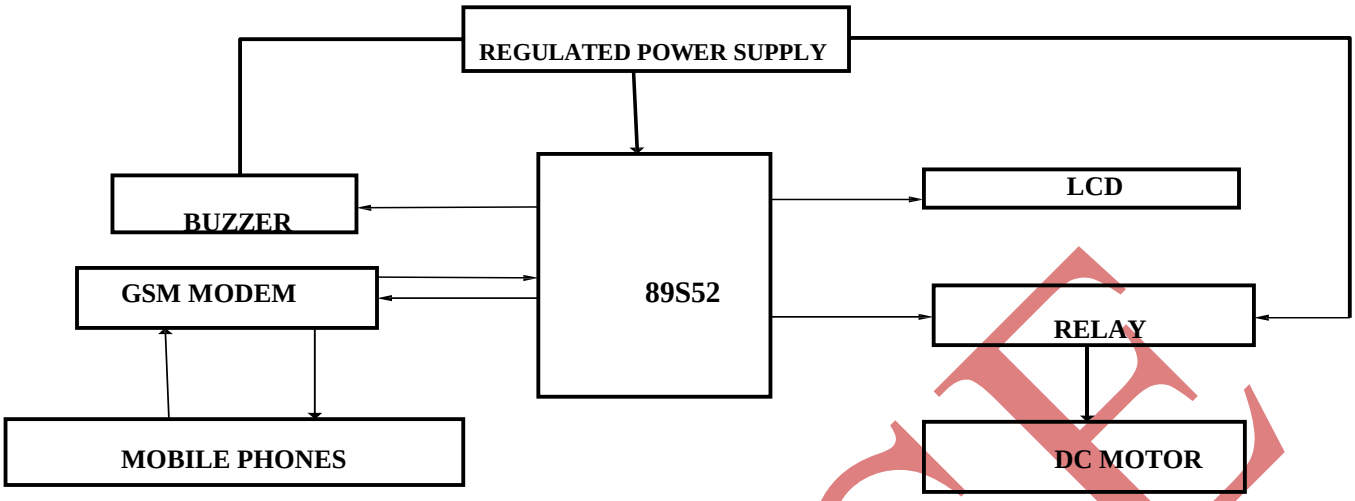

Fig 1: Block diagram of GSM based DC Motor

III APPLICATION

- Voting Machine
- Home Appliance Control
- Robot Control
- E-Notice Board

IV BENEFITS OF GSM

- Emergency Response.
- Technological Growth
- Universal Data Transfer
- Better sound
- Greater Security
- Has International Capabilities

V FUTURE MODIFICATION

- In my project I am sending messages through GSM network and Control the home devices by utilizing AT (ATTENTION) commands. The same principle can be applied to display the message on electronics display board appliances at a distant location.
- Robots can be controlled in a similar fashion by sending the commands to the robots. These commands are read by using AT commands and appropriate action is taken. This can be used for spy robots at

distant locations, utilized by the military to monitor movement of enemy troops.

- Currently farmers have to manually put on or off pumps, drippers etc by using electric switches Using the principle of AT commands we can put on or off these appliances remotely

VI CONCLUSION

GSM (SMS) Controlled DC Motor is automatic control system which capable of receiving a set of command instructions in the form of Short message service and performs the necessary actions like Start , Stop and speed control.

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