EMERGENCY VEHICLE (AMB,VIP) FOR TRAFFIC MANAGEMENT USING GSM/GPRS TECHNOLOGY

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Abstract:

Traffic congestion is major problem in cities of developing countries likeIndia normally to clear the traffic by using manual power like traffic police. it is the time wasteprocess whenever the ambulances, VIP vehicles and fire trucks are cross the junction. The aim of this project is to pass emergency vehicles likeVIP Vehicles, ambulances, fire trucks to their destinations at the earliest by using emergencyvehicle (amb,vip) for traffic management using gsm/gprs technology. Depends upon particular junction, the traffic signals will vary. In this project, when anambulance is approaching the junction, it will communicate to the traffic controller in the junctionto turn ON the green light and we can allocate the easiest way to the ambulances and emergencyvehicles by using this RF communication.

KEYWORD'S:- Lpc2148,GSM module, rf module,

INTRODUCTION

Now a day's traffic is increasing day by day this is was effects on emergency vehicles like ambulance vip vehicles, because lake of information so in this paper introducing new technique   that is send and receiving information through the RF module, This module utilizes RF modules on LPC2148 framework on-chip for remoteinterchanges between the emergency vehicle and activity controller. The police office used to organize the labor for clearing the movement for VIP or Ambulance vehicle.Parcel of time and cash squander with the existed framework so by this peoject we can defeat thisissue.

## EXSISTING SYSTEM

The police division used to orchestrate the labor for clearing the movement for VIP or Ambulance vehicle. Parcel of time and cash squander with the existed framework so by thispeoject we can conquer this issue.

PROPOSED SYSTEM

Movement blockage is significant issue in urban areas of creating nations like India ordinarily to clear the activity by utilizing manual power like movement police. it is the time squander process at whatever point the ambulances, VIP vehicles and fire engines are cross the intersection. To conquer this issue by utilizing this The point of this venture is to pass crisis vehicles like VIP Vehicles, ambulances, fire engines to their goals at the most punctual by utilizing crisis vehicle (amb,vip) for activity administration utilizing gsm/gprs innovation. Relies on the thickness of vehicles on the specific intersection, the activity signs will shift.**Block**

TRANSMITTER DIAGRAM:
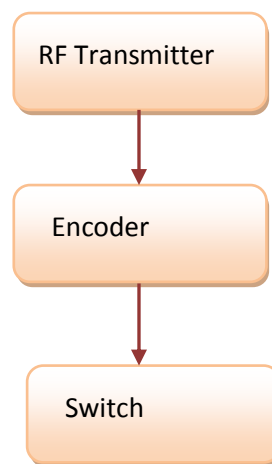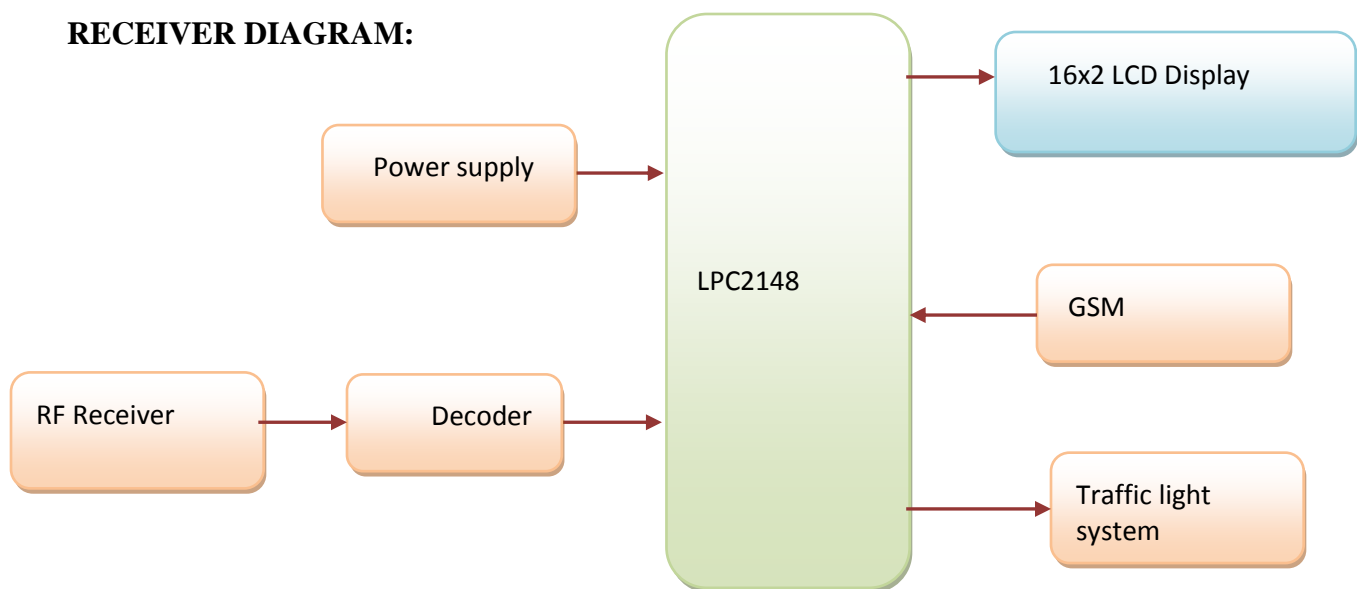

RECEIVER DIAGRAM:

Fig 1: block diagram

About Lpc2148 Microprocessor:

The LPC2148 microcontroller is an advanced one which is of ARM7 family. It's is 32-bit ARMTDMI having excellent features like 32kB to 512kB on chip flashmemory,8kB to 40kB static RAM, 10-bit ADC, 64-I/O pins, 32-bit Timers with external event counter, watch dog timer, Real time clock, EEPROM, 2-UART, 2-I2C busses, 1-SPI supports and advanced processor which is works with 12MHz crystal frequency.
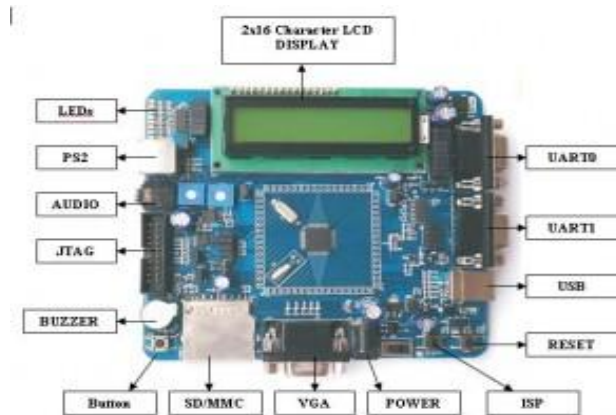

Fig 2 ARM7 LPC 2148 Development Board

GSM (Global System for Mobile communications)

Fig 3. GSM module

GSM (Global System for Mobile interchanges) is a portable system, as a result of thisthat cell phones associate with it through endeavoring to discover cells in the promptly region.GSM

systems work in 4 particular recurrence levels.Its a low-cost, to the network supplier, opportunity message transporter (SMS, in addition known as "printed content informing"), it diverse cellprerequisites also. Another preferred standpoint is that the standard comprises of one universalEmergency cellphone assortment, 112. entangled for worldwide vacationers to associate withcrisis contributions without understanding the area crisis assortment.

RF MODULE:

RF module (RECIEVER):

In this stage we're transmitted sign is obtained by methods for thisrecipient module. The obtained records realities as we encoded the measurements even astransmitting. vitality ASK beneficiary IC that is completely appropriate with theMitelKESRX01 quality radio bundles comprehensive of far away keyless access. Absolutely ona solitary Conversion, huge heterodyne collector structure and conveys (PLL) for specificnearby oscillator time. APPLICATIONS: Car insurance contraption Wireless wellbeingframeworks Sensor revealing robotization gadget Remote Keyless passage FEATURES Lowquality admission. Simple for application. On-Chip VCO with fused PLL the utilization ofprecious stone oscillator reference. Coordinated IF and records channels. Activity temperaturego : ?10?~+60? Task voltage: five Volts. Accessiable recurrence at : 315/434 MHz.
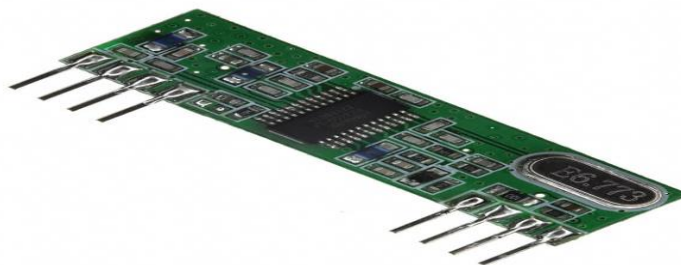

Fig 4.RF Receiver

RF TRANSMITTER:

The records pin is modulated (ASK) through thru the antenna. This segment is absolutely described inside the RF communique segment. The rf transmitter module transmit the signals to the rf receiver.

Fig 5: RF transmitter

SOFTWARE DESIGN

In this project we are using two softwares especially for compilation and for programming into controller, those are,

1. Keil uVision-4.

2 Flash magic Programmer.

The Keil is an IDE Embedded c Programming. First we need to import all libraries then while creating an project should select required tools. After writing the source code we can compile and generate Hex file without difficulties. Its an user-friendly tool. we will program the Hex file in microcontroller using flash magic software.

WORKING DESCRIPTION

The principle adage of task is to clear the activity for crisis vehicles like emergency vehicle andvip vehicles. For that we favored lpc2148 microcontroller to program. It is the excellent propercontroller for this. Program mode is utilized for dumping of this framework into ARMprocessor from any outside instrument comprehensive of PC. Run mode is utilized for the execution of utility. In this framework we pre modified the framework. At the point when the rf module distinguished then it offers data to the gsm module and this modem procedure theinformation,stops activity lights every which way aside from the bearing in which vehicle iscoming.Finaly similar information will be sent to the site for open awareness.HTTP conventionis utilized for transferring the information in to web.

RESULT

The total model as created was tried on various voltages and distinctive zones. It Furnished theright outcome at voltage of 230v to440v.We've tried circuit in "Crisis Vehicle (Amb,Vip)

ForTraffic Management Using Gsm/GprsTechnology",The exact qualities and discovery makesthis framework more helpful to see every one of the information in a clean, organized and easyto understand way.

Fig 6:hardware setup

CONCLUSION

Every vehicle is fitted with a RF module. At the point when a vehicle is to began by messagesend from cell phone to pack setup. At the point when message got accurately .The frameworkshould check whether the client has entered a legitimate information i.e like in which heading itis coming and so forth. The module present at activity intersection will distinguish and transfersthe information in site. Along these lines the framework is worked.

FUTURE SCOPE

This innovation can be upgraded to actualize a similar framework for vehicle confirmation andindividual security, so it was to creating on the task its handling of eventual fate of the ventureto lessen movement issues in a city and it additionally spares lives of patients who are in basic circumstances by clearing the activity utilizing this undertaking.

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