Bank Loan Watcher System

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Abstract:-Our project deals with the design and development of Bank loan watcher system and theft control system for an Automobile loan provider. In the modern world, everybody is in need of vehicle whether it may be a two or four wheelers. As of now most of them are hiring the vehicles through banks by getting loans. The customers of the bank are not paying the dues properly after few months, so it creates displeasure for the bankers. An efficient Bank loan watcher system is designed and implemented for vehicle loan provides it also track the movement of any equipped vehicle from any location at any time. In our project we have a ARDUINO, GSM MODEM, GPS system.

Keywords:- Ardiuno, GSM Module, GPS Modem.

I. INTRODUCTION

The objective of this project is to design the GSM based loan watcher system in order to avoid the displeasure for the bankers. In this modern world , everybody is in need of vehicle whether it may be a two or four wheelers. As of now most of them are hiring the vehicles through banks by getting loans. The customers of the bank are not paying the dues properly after few months, so it create displeasure for the bankers. With the help of GPS module we design and implement a system which track the movement of any equipped vehicle form any location at any time .The proposed system made good use of a popular technology that combine a smart phone application with a arduino. In our project we have a ARDUINO, GSM MODEM, GPS system.

II. LITERATURE SURVEY

Following paper are used for this project:

A. *Intelligent Anti- theft &Tracking System For Automobiles*

This is efficient automotive security system was implemented for anti-theft using an embedded system occupies with a Global Positioning System (GPS) and a Global System of Mobile (GSM). The clients interacts with a Global Positioning System (GPS) and a Global system of Mobile (GSM).the client interacts through this system with and determines their current location and status using Google vehicles Earth. The user can track the position of targeted vehicles on Google Earth. Via Short Message Service (SMS) through GSM network to a GSM modem that was connected to PC or Laptop.

B. *GSM Modem-Real Time Tracking management System*

This a proposed system will show user the real time location of the vehicle on the Google Map by using GPS &GCM(Google Cloud   Messaging). The existing system of vehicle tracking includes the tracking of the vehicle by using GPS and web server for showing the location on the Google Map whereas, in that paper proposed system will show the position of the vehicle to the user who requests the location.

III. PROPOSED WORK

"The Bankloan Watcher System" is the project which will benefit to the Loan Provider For 2-4Wheeler. In this project we use "GSM MODEM" with help we send Message to customer to pay EMI on fixed date. If he will does not pay EMI on time then ignition of System is lock by sending message.

Also we use "GPS MODULE" for tracking the vehicle. For this purpose we will develop a system which can avoid the displeasure for the bankers.

IV. BLOCK DIAGRAM DESCRIPTION

A. *Arduino Board*

Arduino is an open-source platform used for building electronics projects. Arduino consists of both physical programmable circuit board and a piece of software or IDE (Integrated Development Environment) that runs on your computer, used to write and upload computer code to the physical board. The Arduino platform has become quite popular with people just starting out with electronics, and for good reason. Unlike most previous programmable circuit boards, the Arduino does not need a separate piece of

hardware (called a programmer) in order to load new code onto the board –you can simply use a USB cable. Additional, the Arduino IDE uses a simplified version of C++, making it easier to learn to program. Finally, Arduino provides a standard form factor that breaks out the functions of micro-controller into a more accessible package. In our project the 16 *2 LCD is used For display the status of project. The customer notify the message received from the bank. The output signal form Arduino is weak so we have to amplify that signal .the buzzer driver block that is amplifier which amplifies the signal for driving the buzzer for that we use the BC547 transistor used.

In our project we use a buzzer as output device. When SMS is received the ignition of vehicle stop,in that case Buzzer start working.

Our project required +5 volt power supply for driving the Ardunio board and +12 volt supply for the GSM and GPS modem
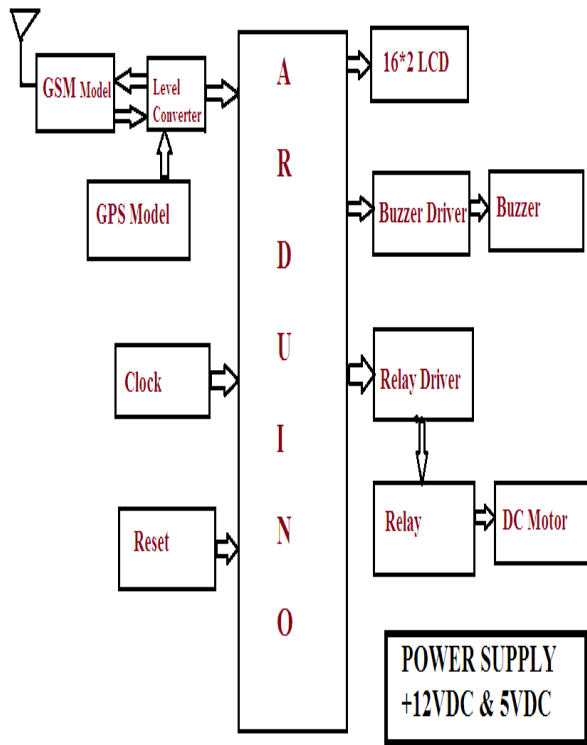
B. Block Diagram

Fig 1. Block Diagram

C. GSM Model

In our project GSM module plays important role. The first embedded device in the advance microcontroller which sends the data to the module the then via wireless link will send the data to the GSM receive in mobile phone here acts as a second embedded device which reads the data. There are different kinds of GSM modules available in market. We are using the most popular module based on Simcom SIM900 and Arduino Uno for this tutorial. Interfacing a GSM module to Arduino is pretty simple. You only need to make 3 connections between the GSM module and arduino. So lets get to business!

A GSM Module is basically a GSM Modem (like SIM 900) connected to a PCB with different types of output taken from the board – say TTL Output (for Arduino, 8051 and other microcontrollers) and RS232 Output to interface directly with a PC (personal computer). The board will also have pins or provisions to attach mic and speaker, to take out +5V or other values of power and ground connections. These type of provisions vary with different modules.

Lots of varieties of GSM modem and GSM Modules are available in the market to choose from. For our project of connecting a GSM modem or module to arduino and hence send and receive SMS using arduino – its always good to choose an arduino compatible GSM Module – that is a GSM module with TTL Output provisions. More and more application emerged with the rapid development of wireless data service, such as vehicle navigation, remote monitoring, wireless internet access, wireless POS, etc. thus, more and device need to be able to do wireless communication.
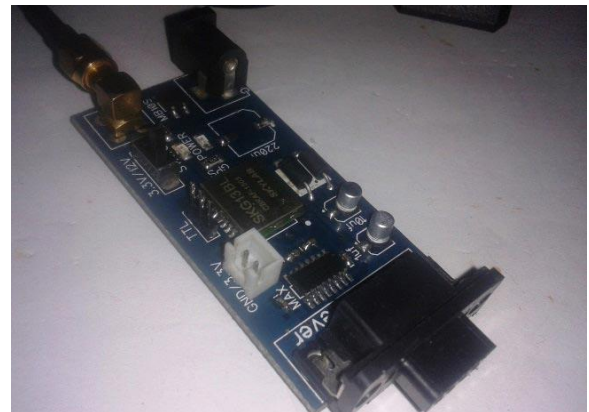
D. GPS Module:

Fig 2. GSM Module

The Global Positioning System (GPS) is a space-based satellite navigation system that provides location and time information in all weather condition, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellite. The system provides critical capabilities to military, civil and commercial user around the world. It is maintained by the unite state government and is freely accessible to anyone with a GPS receiver.

GPS stand for Global Positioning system and to detect the Latitude and Longitude of location on the Earth, with exact UTC time (Universal Time Co-ordinated).This device   the satellite for each and every second, with time and date. PS offers great accuracy and also provides other data besides position co-ordinates , we will into look it shortly.

GPS module is an ideal for applications involving navigation, tracking or surveying. Maps, including streets maps, displayed in human readable format via text or in a graphical format turn-by-turn navigation directions to a human in charge of a vehicle or vessel via text or speech. Directions fed directly to an autonomous vehicle such as a robotic probe. Traffic congestion maps (depicting either historical or real time data) and suggested alternative directions. Information on nearby amenities such as restaurants, fuelling stations, and tourist attractions.
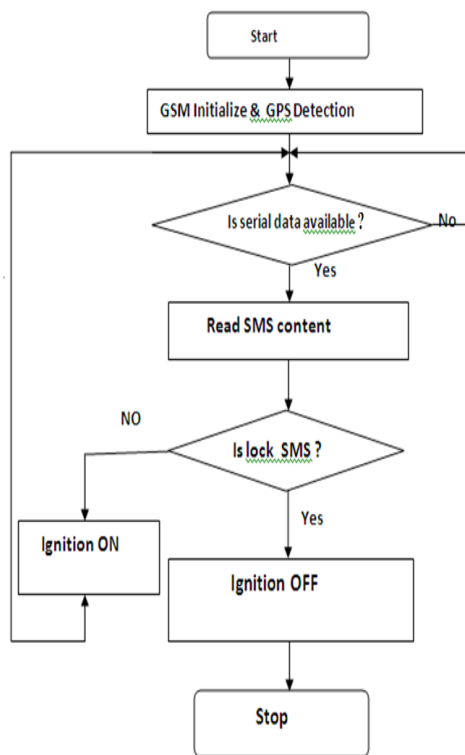
V.   FLOWCHART

Fig 3. Flow Chart

E . Output

We use the ignition control system as output. This ignition system ON-OFF is done with the help of relay as switch

VI.   ADVANTAGE

- It helps both customer and banks.

- Time efficient system.

VII.   APPLICATION

This project is very useful to the government and private banks as well as to the finance company.

VIII.   CONCLUSION

In this paper we have proposed a Bank loan watcher system which is reduce the procedure ob bank and a time efficient system. We found out a solution for the bankers for their safer side. This system is useful for the government and private banks as well as to the finance company.

IX.   FUTURE SCOPE

1.In future for theft control we can use face reorganization.

X.   ACKNOWLEDGMENT

I would like to express my thanks to co-authors of this paper. I also thanks to all faculty, parents & friend for valuable suggestions and Consistent encouragement.

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