WOMEN SAFETY WITH REAL TIME VEHICLE TRACKING AND AADHAR AUTHENTICATION

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ABSTRACT: Nowadays road accidents were playing a key role within the Indian death rate. In keeping with the survey which was conducted by the Transport Research Wing the death rate of accidents have been escalated by 2.5% - 2.6% from 2016 in India. Daily around 1374 people were losing their lives because of road accidents and most of them were 16-35 years old only. In line with the report which was released by the WHO almost 70% of the road accidents were caused by rash driving and drunk and driving. So I took an initiative towards the reducing of this road accidents and that i hope my project will help. Given above a number of the methodologies which we will implement in vehicles to produce theft prevention using GSM and GPS together with safety measures wich will be made with lower cost. The one who book the vehicle can register their trip with the assistance of Aadhar number and their parents or guardians mobile number. After the registration the trip or ride will start. If any emergency cause occurs to someone or passenger then he/she should press the emergency button then danger alert goes to the admin and therefore the parents mobile number which is registered by the passenger. During this project the admin can control the car Engine the assistance of GSM by sending a message "ENGINE ON" and "ENGINE OFF". In another case if the admin wants to track the location then he can send message "TRACK" then he gets the GPS location with the assistance of GPS module.

Keywords: ARDUINO IDE, GSM MODEM, GPS, LCD, PIEZO ELECTRIC BUZZER.

1. INTRODUCTION

Women safety has always been a difficulty even in these present with such a lot advancement in technology. Women don't seem to be safe anywhere and are most vulnerable when traveling alone into lonely roads and deserted placesExisting handheld devices that are available for ladies safety require women intervention to activate them like pressing the button or shake the device etc after sensing the danger. However, for a few reason if a lady has no time to activate it when she is danger, then the aim of the protection device isn't solved. In a country like India where the expansion rate of crime is taken into account to be over the expansion rate of population, which has burglary, murders, rapes, and lots of more women's safety is believed to be one in every of the foremost important issues. According to a report by Thomson Reuters Foundation, India is ranked as a highly dangerous place for girls worldwide, India has the best number of kid brides moreover. In 2016, the amount of reported rapes is nearly 39,000. Experts that were interviewed for the rationale why India is presumed to be dangerous for girls said India is on top of the list because its government has done almost nothing to produce safety to women since the rape and murder of a student in early 20's in 2012 which prompted changes within the rape laws of the country. Most of the attacks on women happen once they are travelling alone or are in a very remote area where they're ineffectual to seek any help or proper assistance.

2. LITERATURE SURVEY:

The internet today has become the main source for various technological advancement globally. IOT is anticipated to spread rapidly over the approaching years and this convergence will unleash a replacement dimension of services that improve the standard of lifetime of consumers and productivity of enterprises, unlocking a chance that the GSMA refers to because the 'Connected Life'. IOT shall be able to incorporate transparently and seamlessly a oversized number of varied and heterogeneous end systems, while providing open access to chose subsets of information for the event of a plethora of digital services. This paper on this note provides a comprehensive insight of how full deployment of the IOT will accelerate technological advancement and might achieve a complete revolution of communication trends and processes yet because the economy and every aspect of social life.

A replacement McKinsey Global Institute report, The IOT: Mapping the worth beyond the hype, attempts to figure out exactly how IoT technology can create real amount. Our central finding is that the hype may all right understate the entire potential—but that capturing it'll require an understanding of where real value are often created and a successful effort to handle a bunch of systems issues, including interoperability. To urge a broader view of the IoT's potential benefits and challenges across the globe economy, we analyzed quite 150 use cases, ranging from people whose devices monitor health and wellness to manufacturers that utilize sensors to optimize the unkeep of apparatus and protect the safety of workers. Our bottom-up analysis for the applications we size estimates that the IoT includes a complete potential economic impact of $3.9 trillion to $11.1 trillion a year by 2025. At the very best end, that level of value—including the patron surplus—would be admired about 11 percent of the earth economy.

While the evolution of technology facilitates individual's life in several ways, on the other hand, it brings some threats and incursions in additionally. Considering the IoT is a vital player in any a component of life-smart home systems, smart cities, in health, in logistics, entertainment soo on, this paper addresses the key parts of this technology, security risks and corresponding countermeasures, privacy issues. If the implementation process isn't operated correctly, what reasonably outcomes could occur is roofed. Although, it's inconceivable to hide all aspects of IoT, during this paper mentioned a varity of them from the evolution of IoT to implemented systems, applications, security challenges for every field individually, privacy concerns. And ultimately, main technologies that are used discussed with a quick description

3. PROPOSED SYSTEM

Here the project is mainly depending upon the GSM/GSM modem. This modem is going to be connected with the microcontroller through an interface which is helpful in transforming the protocols over the network. This is a wireless modem which is worked with GSM wireless network. If the owner (of the car) is somewhere far from the car and he wants to lock the vehicle right from the place he is standing, he has to send a predefined message to the modem. The controlling unit will be fixed to the vehicle for the microcontroller is receiving any messages or not.

When the user sends the predefined message to the modem, the modem receives the message and intimates the same message to the microcontroller. The microcontroller clone the message from the modem by using some AT and T commands. So according to the received message the microcontroller will perform the actions with out any human involvement. The has been shown in this project.

So whenever any one needs to unlock the car a alert message has been sent to the user mobile phone. Here we are going to provide high security by measuring engine temperature. In some cases the thieves may start the engine without ignition key so during this case we cannot find whether engine is started or not. But with the assistance of our system we are able to find easily whether engine started or not. It can even provide safety to the passenger by authenticating him by entering a secret no. and sending the message to the most control.

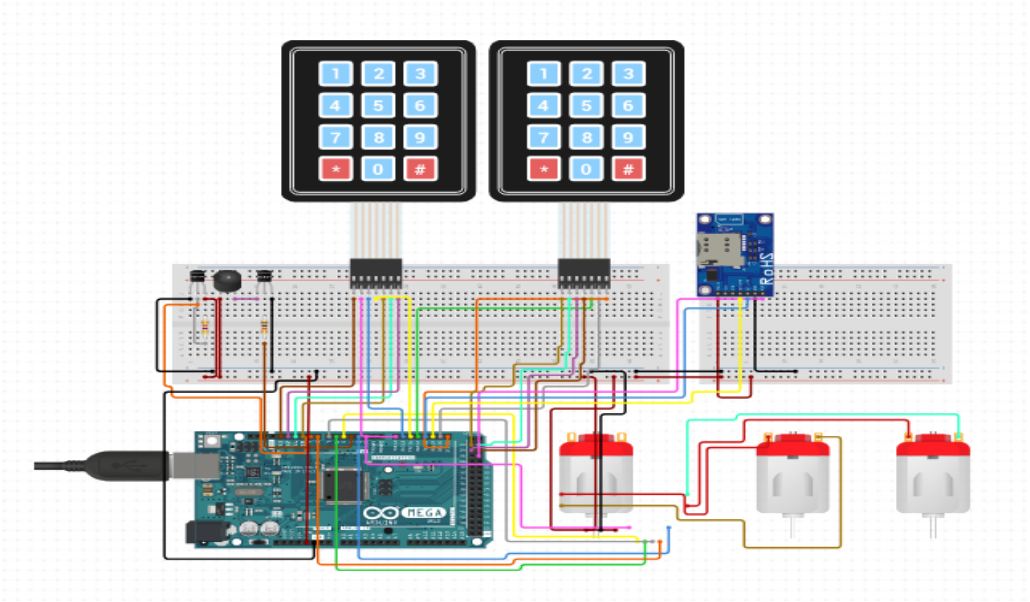
4. METHODOLOGY

Nowadays Women's safety is the at most priority around the world especially in India. As the technology is growing in a fast phase now many applications and apps are invented for the safety of women's. As a part of this i had done a project with a single press the women can tell someone that something is going bad so she needs your assistance. Here i am using a Arduino which help's to start up the microcontroller and i am also using a GSM modem to track the location if the victim is travelling.

5. INTERNAL WORKING

This Project is for women's safety system which provides the current location of the women in danger through GSM module. When the system gets activated an alert message is generated and sends to the main control or registered mobile number with the help of GSM module in emergency cases this will be helpful as the proofs and helps the cops to find the culprits. The user can immediately get help in any situation.

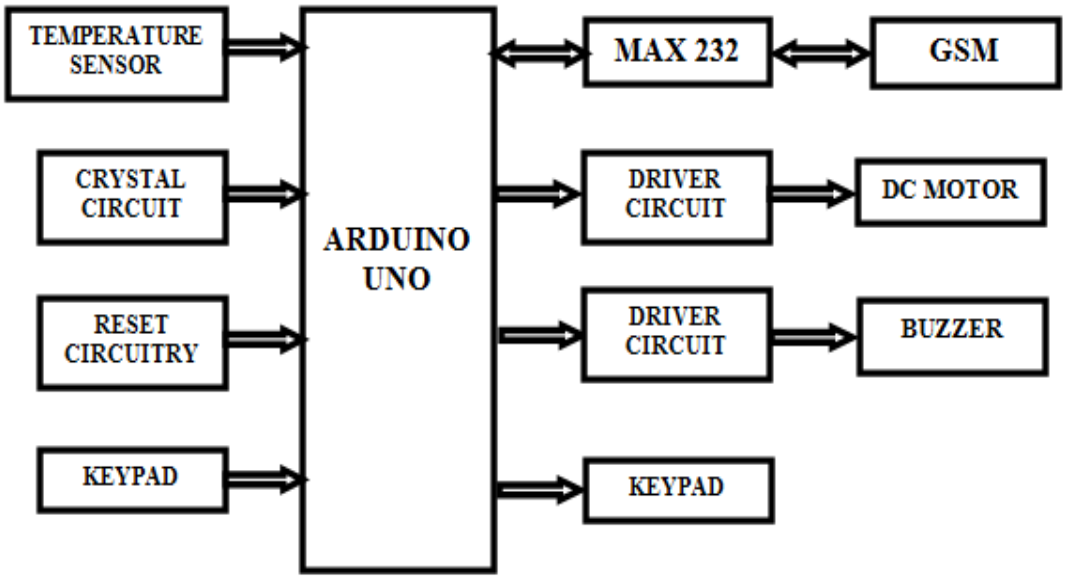
6. COMPONENTS PHOTO



7. RESULT

Initially, the GSM module is verified whether it is properly connected and configured. After configuration it can be used to access the device and verify credentials.

Once the user activated the device the continuous monitoring begins. In case of emergency the buzzer starts to beep, the GSM module sends the message.



ARDUINO IDE:

Here we are using the Arduino IDE to activate the microcontroller and we the ardunio allows us to write the any programming language by using different compilers which helps in producing the Binary machine code. Atmel is used to produce a development environment for the microcontrollers which are 8-bit AVR and 32-bit ARM. Here AVR studio is the older one where as the ARM studio is the newer one.

IDE

It is known as Integrated Development Environment for the Arduino and it is also known as a cross platform application which is developed or written in the Java programming language. It also contains a code editor with some features like searching and replacing the text, highlighting the syntax text and helpful in cutting and pasting e.tc. It also creates a simple mechanism like by one click we can easily upload and compile the code in the Arduino board. It also contains an operation menu or picklist and text console too.

By using special rules of code structuring, we can run the C and C++ programming languages in Arduino IDE. It also contains a library which provides the common inputs and output procedures for the wiring projects. The Arduino IDE is used to convert the executable code into text file which are in the hexadecimal encoding that was already loaded in the Arduino board with the help of a loader program in the board firmware.

CONCLUSION:

In this Smart Vehicle Safety system, we implemented the both GSM and GPS systems. This system will provide a great control over a vehicle when ever it was stolen. By using this system, we can look the doors and even we can stop the engine also so that we can have well control over the moment of the vehicle. So again, if we want to unlock the doors and restart the vehicle, we can simply run some commands in our mobile phone. This makes the work easier in finding the location of the stolen car by using GPS. And further we can also implement a face biometric for more security.

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