Ahsanullah University of Science & Technology
Department of Computer Science & Engineering
Semester Fall 2019

CSE 3216
Microcontroller Based System Design Lab

Project Proposal

Project Name: *GPS Tracker*

Submitted To

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Objective

A GPS tracking device is not the same as a car GPS. Both GPS devices work by using info via satellite coordinates. The fundamental objective of a GPS tracker is always to track a particular target vehicle or cars. The tracking device is able to relay info concerning exactly where the car has traveled, how lengthy the vehicle stopped, and so on. GPS tracking devices are often installed in vehicles. However, GPS tracking devices also can be used for motor cycles, scooters and bicycles. Some GPS trackers are developed to monitor and track movements of laptop computers if laptop or computer is lost or stolen.

Social Values

In identifying the social and behavioural implications of location based services(LBS), one can point to classifications in previous works. Perusco and Michael (2007) classify the social implications of LBS into four areas: control, trust, privacy and security. In investigating the ethical implications of LBS, Michael et al. (2006) also classify implications into four areas: privacy, accuracy, property and accessibility. To this list, additional dimensions such as technology, risk, legal and regulatory concerns have also been added.

Required Components

These following parts and tools are required for building this project

- Arduino UNO
- GSM sim800/900 module
- NEO GPS 6M
- 16 x 2 LCD
- LCD Breakout Board
- Jumper wire
- 9 Volt Battery

Working Procedure

The basic components that react to the input are

- 16 x 2 LCD Display
- GSM sim800/900 module
- Neo GPS 6M

The components that receive commands

- GSM sim800/900 module

The device that is compatible

- Any Smart phone with SMS facility and Internet Connection

Type "TRACK VEHICLE" as SMS and send to the sim in the GSM Module. As response, the GSM module will send back a SMS consists of coordinates of the vehicle and a Google Map url to view the location on real map.

Estimated budget

Equipment	**Quantity**	**Budget(Tk)**
Arduino UNO	1	1950
GSM sim800/900 module	1	3150
NEO GPS 6M	1	845
16 x 2 LCD	1	160
LCD Breakout Board	1	100
Jumper wire	As required	100
9 Volt Battery	1	40
Total		**6445**

Conclusion

Arduino-based vehicle tracking system using global positioning system (GPS) and global system using GSM modules. GSM modem with a SIM card used here uses for the communication technique. The system can be installed or hidden in our vehicle. After installing this circuit, we can easily track our stolen vehicle using a mobile phone. We can also use this application to track the school/college bus.