Abstract

Egypt is now suffering from a gasoline crisis that needs to be solved or limited. The gasoline is now stolen or be sold in black market. To share in solving this problem a system for monitoring the gasoline tracks is been developed to keep track of the tracks during delivering the gasoline to the stations this system consists of 3 main component: Sensor Simulator, Web Application and Android Application.

Sensor Simulator consists of two parts which send the data to the server that will send by the hardware device (sensors).Tracking sensor that send car data like (tank amount, latitude, longitude, speed) to the server uses latitude and longitude which allows me to monitor the car (web). If tank amount will reduce in a place other than the specific station the system will fire alarm. Station well sensor this sensor only send petroleum amount inside it. It will be very important for user that use android app so as not to show him the empty stations.

The web will be for one company. Firstly, the employee will login to web then it have two tasks either to monitor the map, or adding request.
Monitor map this will show all car on map and can get information of every car .If tank of the petroleum car amount will reduce in a place other than the specific station the system will make alarm. And the employee will call the management and perform it about car location.
Adding request the employee will receive request from station via telephone and will register it.

The android part contains of four parts. First, is the GPS that will detect user location and send his longitude and latitude to calculate distance between it and stations nearby. The second part, is setting which contains two parts choosing the default petroleum type (solar,80,90,92,95) and choosing default way to show station(lower user number, nearest station).Thirdly, station that will show station from server and user numbers in station and distance from the place to station. Finally, a map is used to show the shortest route from user location to the specified station location.