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FLEET MANAGEMENT SYSTEM USING IoT AND ARDUINO

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Abstract: Resource management play an infinite role in our daily of fleet management. Particular sort of the resources like fuel, driver behaviour, the fleet maintenance etc. are must avoid to manage financial defeat. Location shared via GPS to the pc programme can help truckers to find over these areas. This work focuses on the key objective of the transportation management with minimum human resource therefore the management of the fleet with the development of the IOT is employed during this work source for the automated fleet resource managements, find drivers behaviour, health status of the vehicle.

INTRODUCTION

n Transportation is one in every of the key advancements of the humankind. it's impossible to contemplate today's world without vehicles. because the human population grows the amount of Transportation is one in every of the foremost advancements of the humankind. it's impossible to think about today's world without vehicles. because the human population grows the with economic development many of us are able to afford a vehicle of their own. because the number of vehicles grow, the probability of accidents occurring also increase by many folds. IOT new aptitudes to tackle the challenges improve activites and upswing efficiency.The IOT is explained the association of solely conspecious electronic gadgets utilizing information plumbing including internet protocol(IP), cloud computing and web adminstration. Internet Of Things (IOT),impact on industrial automation and it makes us to utilise tablet PCs,PDAs, virtualized frameworks, and distributed storage of data etc.The smart fleet monitoring system using Internet Of Things (IOT) utilizes modest sensors to screen the status of trucks. The Arduino Uno used here could even be a method of microcontroller board supported ATmega328P (datasheet). it's 14 pins input/output pins with input voltage 6-20V, operating voltage 5V, and 6 analog input pins.

LITERATURE SURVEY

The vehicle tracking system is technology that's utilized by many companies and individuals to trace a vehicle by using some ways like GPS that operates using satellites and ground based. The vehicle unit, which is that the hardware component that's attached to the vehicle, is configured to receive signals from the cellular mobile tower and send it to the net server to represent true on the map by using Google maps in real time. it is vital to contemplate some hardware specifications so on induce satisfying results. Thus, raspberry Pi are often used as an embedded computer attached to the vehicle especially when using cellular method.
This paper provides an full study of the various techniques that are utilized in traffic video surveillance. It focuses on various techniques of auto detection, classification and tracking to make an efficient traffic management system by the use of video surveillance. Smart visual surveillance in dynamic scenes of assorted environmental conditions has been considered where outdoor environment is tougher for researchers than indoor environment because of sunlight and illumination changes, human behaviour etc, the study gives an improved understanding and highlights the issues and solutions for traffic management systems.

In this paper, the monitoring of reserve of the truck will check the separation crossed by the truck and furthermore checks the fuel utilization regarding the separation crossed. Consequently, by giving preliminary control measures to the drive for the right support of the truck. this might somewhat be actualized within the courses where efficiency is required. it'll lessen asset for maintaining countless vehicles and furthermore confines fuel, speed, temperature, so on tapping by driver. It mostly gives accommodation and practicality which is primary worry within the day today life. this method can bring revolutionary changes within the environment still as within the day-to-day lifetime of individuals

In this paper, the proposed system ensures Management of vehicles fuel consumption supported daily, monthly, and annual reports provided for a specific vehicle or a bunch of vehicles. Increase the customer satisfaction and staff transparency. Considerable reduction of driving violations during in-service periods.

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This framework is totally coordinated and it gets conceivable to the client to follow their vehicle effectively whenever and from any place, because the vehicle robbery is expanding step by step however because of this individual wasn't try to not utilize vehicles yet they tracked down an honest method to seem at out for his or her vehicle without being extremely near them. These frameworks keep an honest control on the burglaries and help staying faraway from such burglaries.

The aim of the paper is to relinquish an outline of car tracking and vehicle accident detection system. The geographical information can be tracked automatically by the vehicle accident detection system and it also sends an alert SMS regarding the accident. Experimental work has been disbursed carefully. The result shows higher sensitivity and accuracy. This method is verified to be highly beneficial for the automotive industry.

In this paper, Vehicle Tracking System with audio surveillance using GPS and GSM presents efficient location of the vehicle on the map by integrating the several communication technologies and display setups. The Google map displays the location of the vehicle. GPS and GSM modems are the tools used to track the location of the information and to send the information to tracking server.

In this paper, by using the Smart Vehicle Monitoring System, accidents are going to be detected immediately with severity level and can be intimidated to authorities with no delay. Immediate medical attention will reduce the amount of accident kills and severe injuries. This may also help the traffic authorities to divert the traffic that may save both time and money. Since this can also help the user to seek out and control the stolen vehicles. The quantity of auto thefts is reduced gradually.

The present work provides a completely unique IoT architecture for predictive maintenance. Currently only one bus is supplied with a gateway, but we commit to expand the MVP and equip more buses with gateways. This MVP is that the foundation of our predictive maintenance machine learning and data analytic research.

A number of various vehicles monitoring technologies were discussed. Vehicle monitoring can improve the comfort level of the users moreover because it may also provide timely information on the varied parameters of the vehicle and also the traffic conditions to the user. The user can take a sensible decision supported the input received from the vehicle monitoring system. it'll also help in avoiding accidents and providing immediate medical attention within the unfortunate event of an accident. it's well-known that the immediate medical is most vital for an accident victim. Any delay within the medical help only increases the possibilities of the victim losing their life or getting a permanent damage to their body. The vehicle monitoring system also can help in quickly locating a stolen vehicle thus reducing the possibilities of auto thefts. within the case of heavy traffic, the vehicle monitoring system can divert the traffic to decongest the roads.

CONCLUSION

The work of the fleet automation based on the IoT. Logistics is used to manage the assets with the minimum quantity of human resource. The monitoring of fuel stage of the truck will test the separation crossed by the truck and moreover tests the gasoline utilization regarding the separation crossed. Consequently, through giving preliminary manipulate measures to the driving force for the proper support of the truck. this can be actualized within the courses where effectivity is required. it'll reduce asset for maintaining endless motors and moreover confines fuel, speed, temperature, so on tapping by means of driver. It frequently gives accommodation and practicality which is main fear within the day nowadays life.

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