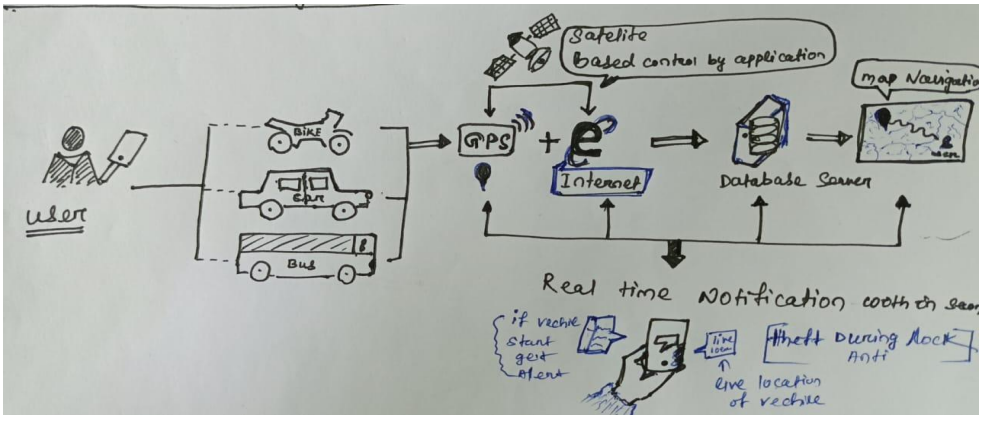
IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 4, May 2023

Artificial Intelligence: GPS based Vehicle Tracking and Monitoring System

Rakesh Kumar Mahana and Vishnu Thapa
Department of Computer Science Engineering
Dronacharya College of Engineering, Gurgaon, Haryana, India

Abstract: *It is the vehicle & people recognizing system for vehicle tracking also can be monitorable the vehicle by the help of both Android Application &website. This is the secure vehicle tracking & monitoring system which is very useful to avoid the traffic issues of Private Vehicles & commercial vehicles of their Vehicle owners During Unsafe Activity of Drivers. If Any Unauthorised Access happens during Vehicle parking this system will Report to the user by the help of mobile Vibration and Sirensystem also get alert by messages. During the both School & college vehicles if we use this system the both parents and students with bus & cab drivers will get notification at the same time on the behalf of single Application system. By The help of Admin Module access the college Authority can access the vehicle activity & also can access the Camera of vehicles can identify the both drivers and the students activity by the help of this system . By the use of this Intelligent system that their parents got notified every moment of students that anyone can use by the help of a single Application. A smart vehicle system ease the tension from the care takers thatthe by Notifying their childrenActivates during outside of home also make vehicle safety like situations on heavy traffic jam situations Alerts . While somewhere we parking our vehicle during workplace / night parking / market parking if that time someone wants to start our vehicle then automatically suddenly got alert by Mobile Application & by alerting messages . During user sleep at night it will automatically calculate the distance if some replace the vehicle from one place to another place.*

Keywords: Android application/website , internet service , GPS , Google Map , python , AI / Deep learning & ML etc.



I. INTRODUCTION

We are currently livingin the year 2023 in our Environment. Technologies are growing day by day. By the help of oftechnologies people are got benefits also saves their time on the daily basis. Day by day within few efforts work cycle is growing very faster. The technology Artificial intelligence plays very magical role that actually works for saves our time within few manpower it solves our problems with in a few second. Alsoa large & small organization follows this Robotics technologies for more and productivity.This is GPS based vehicle Tracking &Monitoring System which actually helps every Vehicle user. It is the vehicle & people recognizing system for vehicle tracking also can be monitor able the vehicle by the help of both Android Application &website. This is the secure vehicle tracking & monitoring system which is very useful to avoid the traffic issues of Private Vehicles & commercial vehicles of their Vehicle

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 4, May 2023

owners During Unsafe Activity of Drivers. If Any Unauthorised Access happens during Vehicle parking this system will Report to the user by the help of mobile Vibration and Sirensystem also get alert by messages. During the both School & college vehicles if we use this system the both parents and students with bus & cab drivers will get notification at the same time on the behalf of single Application system. By The help of Admin Module access the college /School Authority can access the vehicle activity & also can access the Camera of vehicles can identify the both drivers and the students activity by the help of this system . By the use of this Intelligent system that their parents got notified every moment of students that anyone can use by the help of a single Application. A smart vehicle system ease the tension from the care takers that the by Notifying their children Activates during outside of home also make vehicle safety like situations on heavy traffic jam situations Alerts . While somewhere we park our vehicle during workplace / night parking / market parking ifthat time someone wants to steal our vehicle then automatically suddenly got alert by Mobile Application & by alerting messages. During user sleep at night it will automatically calculate the distance if some replace the vehicle from one place to another place.

II. LITERATURE SURVEY

This paper is specially made for the students & people safety purpose. Nowadays, millions of children are going to school for their educational purpose & also millions of people are going to workplace for their daily wages purpose So, we need to develop a different types of system for the students & people safety purpose. This system used to track the location of vehicle or nearby any vehicle. This system helps to find the exact or current location of students & people by using Google map. Peoples &students safety is most important for their parents& guardians as well as schools& colleges authorities also for personal reasons. The application work as personal digital assistant. This paper presents the working flow of the Research. Vehicles tracking system project is an Android based. Morden bus tracking system generally used GPS technology for the tracking route and location ofthe bus via goggle maps. These application is easy to handled and user friendly. By using internet we can view vehicle information. The paper also purposes of security system and drive prevention system. It's totally based on goggle Maps and API's. It's more accurate to check or track the current location of persons/students & drivers as well vehicles. This application gives brief idea about the routes, vehicles locations with online attendance features. It is more accurate to check or track the current location of students & persons. This application gives brief idea about the routes, bus locations with online attendance features.

III. PROPOSED SYSTEM

Step 1: First of all the user access code will be provided for automatic verification.
STEP2: If access denied by systemthen it will be considered as invalidattempt from user.
STEP3: Ifverification will successfullydone then proceeds for further stepsautomatically.
STEP 4: Then matched occurs data will be sent to database &user will be notified about driver &person's arrival in the vehicle through sms& pop up through.
STEP 5: When user is about to be dropped off to his or her destination point code is checked again.
STEP 6: Notification will be sent to both destination & source user so that person can't get out of vehicle. Else or can't be late to get out of the Vehicle they reach at school & collegeas soon as possible.

Processusability
User Registration: System administer can access to all authority. It interact means registration of student / Persons. Admin can add and update the student information to database.
Driver Registration: Administer can add update the driver. if the information to database
QR code scan: Vehicle driver gettingverification id card of After verification code Verify automatically Generated the people's attendance and send sms to parents Via notifications in their Phone.
Notification generation: Driver verify their for verification and will be generate. The notification sends.
Location: User location will be traced after thatLocation is sent sms in URL form form also can be accessedthrough URL is directed to Google Map exact location is detected easily.

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 4, May 2023

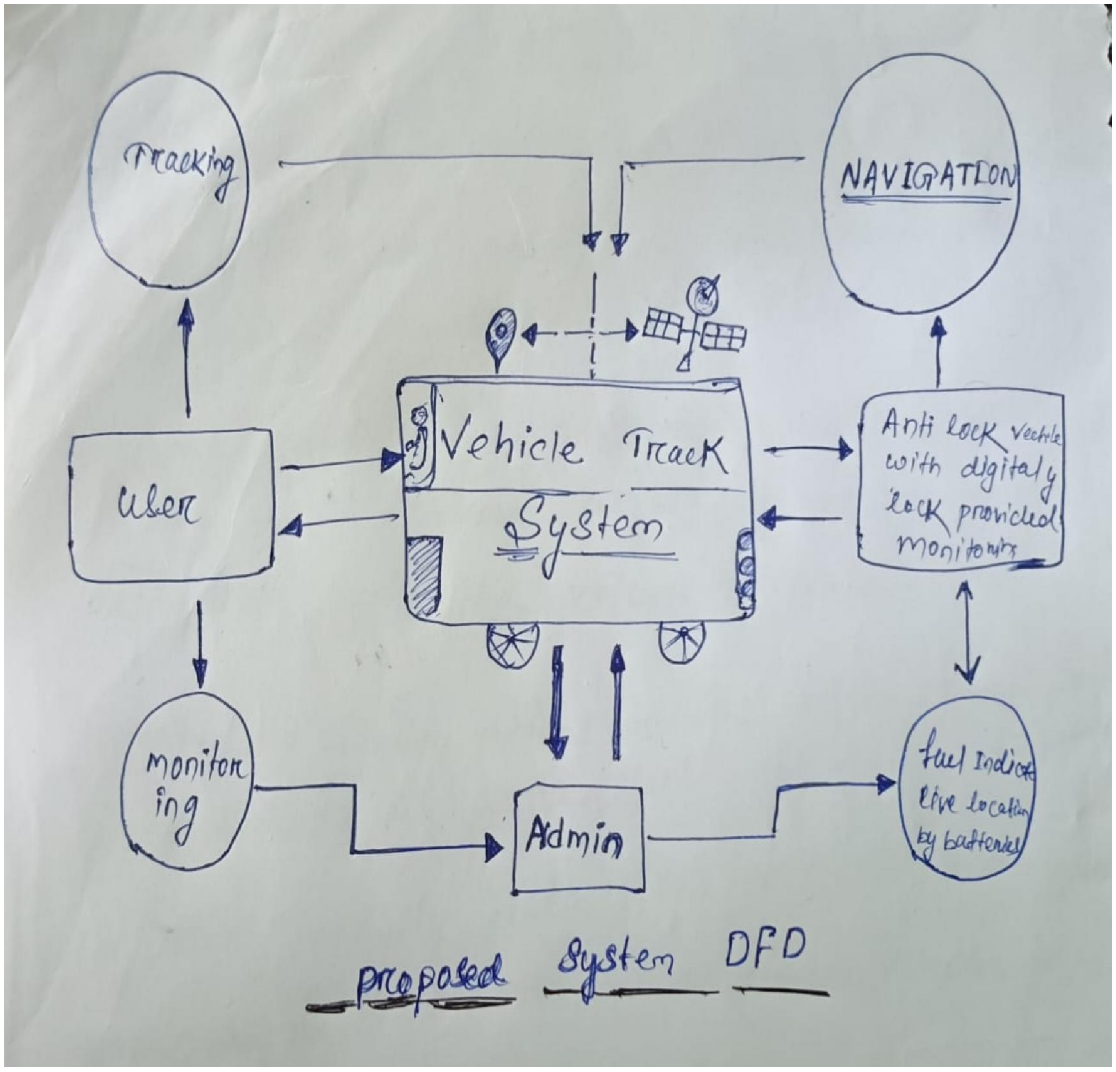


Fig. ProposedSystem of DataFlowDiagram

IV. RESULT

This System is designed and implemented by the help of android using map, android phone, internet connection, an database, allowing easy reading and editing of user & Vehicles data.

It's a cost-effective solution with very easily manageable also no additional hardware and associated purchase and maintenance costs, and is user friendly and simple.

It contains a highly security by integrating the features to optimise routes and tracking off route of each and every activities by artificial system.

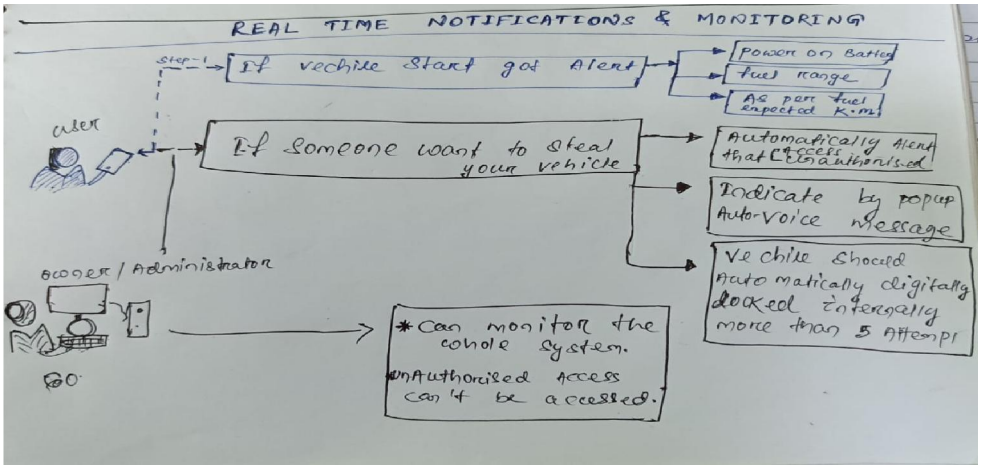
In the educational Authority/ conductor will be immediately alerted if any student will miss and the boarding status of all students/ parents as per the activity of the child which helps them notify about their status.

Once the Identification of each student is verified then the application marks the attendance and sends a notification to the parent regarding the each and every actives of students in colleges / school .

If the system used in personal / commercial purposes this system will be immediately alerted if any drivers activity will miss and the status of all owners as per the activity of the drivers which helps them notify about their status.

If the driver got very rush driving in the road this system will automatically identified and can automatically the owner can identified by the help of single application .

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 4, May 2023



V. CONCLUSION

In this Research study, IT is a secure vehicle tracking and monitoring of vehicle system which has been proposed for both inside and outside of the city. The systems which will ensure that safety and ease tension of guardians and alsowill improve the tracking and remove the accidents free conditions. This is also providing an easy pick up system by providing notifications to the Owners. Owners will get notified by the help of Android application and also this application can be used to see the current status of the vehicle by the help of the Goggle map then, this system will be Easy for the owners to track the movement and the location of the vehicles and drivers . We literally can say that this system will be so much benifitable for packers and movers companies whose have more than 100 no of vehicles. Only single person as a Administrator can gave instruction to all drivers

REFERENCES

[1]. “Android tutorials” [Online]. Available: https://developer.android.com/training/index.html
[2]. “Android tutorials” [Online]. Available: https://www.tutorialspoint.com/android/
[3]. P. Normark and C. Stahlberg, “Hybrid GPS/Galileo real time software receiver,” Proc. ION GNSS, pp. 13– 16, 2005.
[4] C. CAI, Y. GAO, L. Pan, and J. Zhu, “Precise point positioning with quad- constellations: GPS, BeiDou, GLONASS and Galileo,” Adv. Sp. Res., vol. 56, no. 1, pp. 133–143, 2015
[5]. X. Li, X. Zhang, X. Ren, M. Fritsche, J. Wickert, and H. Schuh, “Precise positioning With current multiconstellation Global Navigation Satellite Systems: GPS, GLONASS, Galileo and BeiDou,” Sci. Rep., vol. 5, no. July, p. 8328, 2015.
[6]. O. Montenbruck, P. Steigenberger, R. Khachikyan, G. Weber, R. B. Langley, L. Mervart, And U. Hugentobler, “IGS-MGEX: preparing the ground for multi-constellation GNSS science,” Int. Colloq. Sci. Fundam. Asp. Galileo Syst., no. 1, pp. 4–6, 2013.
[7] . J. Tegedor, O. Øvstedal, and E. Vigen, “Precise orbit determination and point positioning using GPS, Glonass, Galileo and BeiDou,” J. Geod. Sci., vol. 4, no. 1, pp. 65–73, 2014.
[8] “How The Galileo Atomic Clocks Work.” [Online].
Available:http://www.esa.int/Our_Activities/Navigation/How_the_Galileo_atomic_clocks_work.
[9]. J.-M. Zogg, “GPS Basics: Introduction to the system Application overview,” p. 94, 2002.
[10]. S. M. Jaisakthi, P.Mirunalini, D. Thenmozhi and Vatsala, "Grape Leaf Disease Identification using Machine Learning Techniques," 2019 International Conference on Computational Intelligence Data Science (ICCIDS), 2019
[11]P.Kantale and S. Thakare, "A Review on Pomegranate Disease Classification Using Machine Learning and Image Segmentation Techniques," 2020,4th International Conference on Intelligent Computing and Control Systems (ICICCS), 2020

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue 4, May 2023

BIOGRAPHY

rakesh15407@gmail.com
+91- 9057876448
Software Engineer

I am Rakesh kumarmahana currently persuing Bachelor of Technology in computer science Engineering from Dronacharya college of Engineering farukhnagar, Gurgaon ,Haryana in 8thsemester 2023 .Also I have completed Diploma in computer science engineering From Government polytechnic Manesar Gurgaon Haryana in 2020 .I am Really passionate about to learn about old technology Research papers by the help of this Research paper always I want to innovate/ implement new ideas using technology .This paper is specially made for the students & people safety purpose. Now a days, millions of children are going to school for their educational purpose & also millions of people are going to workplace for their daily wages purpose So, we need to develop a different types of system for the students & people safety purpose.The paper also purposes of security system and drive prevention system. It's totally based on goggle Maps and API's. It's more accurate to check or track the current location of persons/students & drivers as well vehicles. This application gives brief idea about the routes, vehicles locations with online attendance features. It is more accurate to check or track the current location of students & persons.