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| **Project Abstracts 2019-20** | | | | |
| **1.Department: CSE** | | | | |
| **2.Year:2020** | | | **3. Semester: 8** | |
| **4. Student Name**  **5. USN** | | | **Prashant Shah 1NT16CS214**  **Ankit Prasad Gupta 1NT16CS216**  **Bivek Kumar Shah 1NT16CS192**  **Sahib Ramnani 1NT16CS171** | |
| **6. Name of the Project Guide** | | | **Dr. Venkatesh K.** | |
| **7. Domain** | | | **Internet of Things, Machine Learning** | |
| **8. Title/Topic of the Project** | | | **Car Fleet Management** | |
| **9. Abstract(Not more than 100-150words)** | | | | |
| With the increase in population, the use of vehicle is also increasing gradually. Some use public transport; some use personal vehicles and some take the vehicle on lease. There are some providers like Zoom Car, Ola, Uber, Bounce who provide vehicle for use on lease. However, these services have some trust issues with drivers leasing their vehicles. Some of the problems faced by the fleet managers are that the drivers drive rashly, steal parts of the vehicle and sometimes the vehicle itself, misbehave with the passengers etc., and as the name of the leasing company is prominently displayed on the vehicle they get a bad reputation in addition to financial loss.. Car Fleet Management system has been designed to address these issues. The system relies on the use of Internet of Things (IoT) and Machine Learning technologies heavily to solve the identified problems. This project consists of seven modules: GPS Tracking; Geofencing; Vehicle Power Control On/Off; Drowsiness Detection; Ultrasonic Parking; Speed Monitoring; Automatic Wiper. GPS Tracking allows administrator to track the live location of the car. Geofencing allows the system to protect from the fraud if driver is trying to get away from the allotted area. Ultrasonic Parking feature assists the driver to park the vehicle without bumping into neighboring objects. Speed monitoring allows administrator to view the speed of the car. and the Automatic Wiper helps driver by turning on when automatically rain droplets fall on the surface of the rain sensor. Also, as in the near future there will be more use of electric vehicles as compared to diesel/petrol vehicles we have incorporated a feature for remotely control the power supply of the vehicle. This also helps in ensuring that only authorized persons can operate the vehicle. As the IOT platform has been integrated into the vehicle the real-time status of the vehicle can be gathered and transferred to the fleet manager and displayed on a dashboard. Hence, the fleet manager can get the status of all the vehicles in his fleet all the time which will help in better managing the fleet. | | | | |
| **10. Objectives** | The objectives of this system are:   * Track live location of the car and checks if he/she cross the boundary of geofenced area. * Turn on/off the main power supply of the car. * Monitor the behavior of the driver by detecting drowsiness. * Monitor speed of the car and automate the wiper. * Park the car very efficiently without any collision. * Build the system by which above mentioned things are possible to implement and provide the best result for the car leasing company like Zoom car, Ola, Uber. | | | |
| **11. Deliverables** | This project aims to target the companies like Zoom car where they will be able to track and monitor their vehicle in real time and help to reduce the cost for maintenance since the vehicle information can be visible using IoT in the dashboard.  It will reduce the work of the fleet manager to a great extent as all activities are digitalized and automated.  With the use of electric vehicle, it will also decrease the pollution.  Leasing would help in cases where the user wants the vehicle for an extended period but does not want to invest money in buying and maintaining the vehicle. | | | |
| **12. Status of the Project (Kindly provide correct status of the project)** | | | | |
| **a. Publication Status b. Productized c. Patent Filed**  Processing  Not Filed  Submitted  Submitted the Paper. Waiting for the publication of paper.  Completed Similarity  **d. Plagiarism Check e. Best project status Describe** | | | | |
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