Diwasi: Intelligent GPS based Accident Prevention System

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Abstract

In a demanding environment, accidents are unavoidable disasters. This has caused accidents to fall under the top 10 of the world's death rate. When considering Sri Lanka the accidents rate are in vast amount compared to world. The majority of accidents are caused by unawareness of critical zones rather than human errors. The research is focused on finding patterns within each accident with the aid of data mining techniques. The main objective was to minimize accidents caused by unawareness of the drivers. When considering the accident management systems available in the market, most of them are automobile integrated systems which are quite expensive and can hardly be affordable to ordinary people. In order to prevent this, the research team has created an accident management mobile app which is not integrated to the automobile and inexpensive. The application is built on a Global Position System (GPS) and is based on mobile phone platform considering the cost and the modern trend of using smart phones all over the world. The Data mining model which was built by the Research team, are effective mostly on B Conditions mid-range (20km-50km) roads in Sri Lankan Road conditions.
This research on the accident management system mainly focus researchers to study further concerning vehicle independent systems and involve in implementing such inventive systems. Usage of the system will have an impact on considerable reduction of road accidents occurrences, due to the predictions of probable accidents that can happen in critical areas, which previously the driver was unaware of.

References

Index Terms

Computer Science  Artificial Intelligence

Keywords

Diwasi, Mobile Based Applications, Vehicle Independent, Real time Data mining, 297B Accident Report Application.