

**SAFEDRIVE: LOCATION BASED ROAD TRAFFIC
ACCIDENTS PREDICTION SYSTEM**

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ABSTRACT

Traffic accidents have been a serious problem since the introduction of the automobile. Despite this worry, there have been substantial societal and economic effects of road safety issues throughout the past century. Understanding these safety concerns and the necessity of mitigating them requires the identification of regions that reflect a higher vehicle crashes probability than an accepted standard.

In this project, a web application that predicts traffic accidents at specific points along a driver's route will be created. Using the date, time, origin, and destination of the trip, this program forecasts traffic accidents for upcoming dates. It helps users to plan their trips and view potential traffic hazards in real-time. Therefore, this research aims to design, develop, and test an application that will facilitate drivers to predict a road traffic accident at certain locations along the driver's route beforehand by getting details of the trip and the driver and save lives and properties by mitigating the traffic accident, with the use of ensemble learning technique.

Key Words: Traffic accidents Sri Lanka, Accident severity, Traffic hazard's locations, Machine learning, Ensemble learning

Subject Descriptions

- Computing methodologies >> Machine learning >> Learning paradigms >> Supervised learning >> Supervised learning by classification
- Computing methodologies >> Machine learning >> Machine learning approaches >> Classification and regression trees
- Computing methodologies >> Machine learning >> Machine learning algorithms >> Ensemble methods