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Driving Behavior Analyzer

A dissertation by

Sahan Helindu Sumanaratne

Supervised by

Mr. Saman Hettiarachchi

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ABSTRACT

The driving behavior is a key feature which all the drivers are concerned. Through knowing his/her own driving styles, it will be benefitted to save the wasting travel time, fuel and the safeness of the driving. Driving behavior not only depends on the drivers' usual driving styles, but also environmental factors. Based on the vehicle type and the driving experience also may be effected to change the driving behavior of a person. Specially, when considering the one person's driving styles in different vehicle types, it will definitely show behavioral variations, because more driving experience in a particular vehicle type is needed to control the vehicle in any condition. When examine the driving behavior, according to the road types also persons' driving style can be changed. Therefore, having a satisfying knowledge in own driving styles in different road, vehicle or environments condition will be helped improve their own driving skills.

After considering the above mentioned features, as a solution for identifying different driving behaviors a software solution has been proposed. The system will detect the drivers' behaviors in different road types and according to the road type best performance will be selected. Also the proposed system will allow users to view their own driving styles in line graphs. So the users will be able to view how their driving behavior has been changed along with the travelled time. Also the map of the driving route can be load through this system.

This solution is implemented based on the Classification methods. Artificial Neural Network (ANN) is used as the main algorithms and the Multilayer Perceptron is used as the classifier for the proposed solution. Because of having limited time frame some feature were developed to a certain extent and rest of the features will be developed in the next development phase.