A STUDY ON THE IMPLEMENTATION OF INTELLIGENT VEHICLE IN MALAYSIA

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ABSTRACT

Most drivers in Malaysia are facing problems where they have to give full concentration on driving through out their journey to the desired destination. There are a few factors that contribute to road accidents or crashes in Malaysia. Some factors are caused by the driver's faulty and some factors are caused by the lack of features provided by the vehicle itself. In the end, the number of road crashes increased and even worst the number of death and injuries also increased. This research intends to investigate the problems faced by most drivers while they are on the road. At the same time, this research also investigates the commercially available intelligent products and the user requirements toward it. Besides that, this research has proposed the intelligent vehicle architecture that suits the local need. Perhaps, the findings of this research are able to help people in the future.

CHAPTER 1

PROBLEM DESCRIPTION

1.1 Background of the Problem

In this new era of technologies, the issue or subject of Intelligent Vehicle or Intelligent Transportation gained strategic importance and widespread relevance. There are many projects launched aiming at analyzing the problem of people's mobility and better transportation from a number of different perspectives. Vehicle manufacturers were competing with each other in designing prototypes of intelligent vehicles that equipped with automatic driving facilities which gives maximum driving pleasure to drivers.

Intelligent vehicle is a term used to address a technique that is aiming at one or more driving tasks and abilities. The implementation of these tasks and abilities carry a large number of benefits, for instance higher exploitation of the road network, lower fuel and energy consumption and improve safety conditions. It must also have the ability to follow the road and keeping in the right lane, maintaining the safe distance with other vehicles, regulating vehicle's speed according to traffic conditions and road characteristics, moving across lanes in order to overtake other vehicles and avoid obstacles, helping to find the correct and shortest route to a destination and the movement and parking within urban environments.