Example of research paper on engineering

Voice Interaction Systems for better Driving

Voice interactions systems are becoming more popular in the motor-vehicle industry. The systems are indicating an increasing popularity due to the extensive use evident almost in the entire world. The experience is the latest driving is associated with functionalities systems like navigation, electric windows, air-conditioning, mobile telecommunication, seat adjustment, multimedia content and many others. There is an increased completion in the vehicles menu structures and the control panels that exists in a car's information system (Bonneau, & Blanchard, 2008). These voice interaction systems are hazardous to the safety of drivers since they lead to diverting the attention of the drivers hence increasing more risks in roads.

A Chinese company, Ivoka, has been in the frontline to develop an advanced technology in voice interaction and it helps to identify speech synthesis, voice evaluation technology, natural language, voice recognition technology, and listening technology. This technology helps to adopt effective communication between man and the machine promoting the advancement in machine intelligence and internet technology. The company invented voice equipments that are placed in on the head of a driver as a voice interaction device which has a feature of being driver friendly and is used to send messages that are gathered by the devices. The voice interaction systems are useful in driving since they contain navigation maps and features to provide a guide while driving. The most important aspect here is the driver's performance and this is determined by the attention of the driver despite the installation of Voice Interaction Systems

Driving distractions

The driving distractions are believed to be too common with as well as ways to preserve your focus when behind the wheel. The following are the examples of driving distractions; Young drivers in the company of young passengers involve in accident than those driving unaccompanied. This usually happens during chatting with the friends inside the vehicle while driving. Make a thought, since there is no one like a friend to taunt you or say something convincing to take your concentration off the road (Peissner, 2011).

Secondly, taking part in cell phone practice, regardless of whether a headset. Put aside your phone conversation, if possible stop. Lost in directions, actually, it is very dangerous to read maps or direction while one hand is on the steering wheel. Instead, ensure you have mapped out your locations hence clear idea of where you are heading to (Peissner, 2011). Or else pull over if there is a need to take a closer look at your drive plan while on the route.

Besides that, occasionally long driving, majority takes it like a thing to calm them down. In actuality, distressed or driving angry for instance driving while drunk is the worst thing most drivers do. This can course flooring on the acceleration pedal therefore coursing over speeding hence road accident. To prevent this, do not try to drive until your heart rate has returned to normal. In high speed, high risks of messing with the controls are often therefore leading to danger. Fidgeting with the controls must be stopped and the drivers enhance memorizing of the layout of control center fully. This ensures that one can switch things on or off and turning functions without even looking at the dash.

Preening while driving, lead to multitasking on the road as many think is time saving. Applying makeup or combing the hair, involve oneself in a costly lesson in driving. Besides, nothing hurt to pretty yourself at your destiny, before you leave your car. As majority of young drivers associate themselves with music it then changes to a course of fatal road accident. Occurs when changing the compact disc or switching to a different radio station. Nowadays, invested CD changer with your right album is available in the market, this really prevent accident to occur.

Systems

The Voice Interaction Systems for better Driving contains a system that has basic elements such as radio, Global Positioning System (GPS) and cell phone. The system is able to control cell phone by disabling the application of unsafe phone applications while driving. The cellular phone also plays a role of on-board voice interaction system. The cellular phones have voice activation system to regulate navigation and audio by downloading text data from an external network using the cellular phones. When the report of deactivation, removal or other misuse rises, alarms are sent by email or text to the designated administrator.

GPS car navigation systems are either an add-on accessories or they are factory installed when the user is buying a car. The system combines the application of satellite signals with the interactive on-board maps. It helps the driver to plot routes of travel to reach at a defined destination according to the number of variables (Prentzas, 2010). Some of the GPS car navigation system is interrelated with traffic information source that enables the driver to automatically account for congestion and construction when identifying

the best route. The GPS also correct the driver once they miss a route with an updated routing. The system is built with visual and voice instruction that assists the drivers to identify various destinations such as the nearest favorite restaurants and gas station among others. However, for the GPS navigation system to be effective, it must be annually updated with the latest on-board maps. The updates are supplied by the GPS manufactures and distributors.

The Voice Interaction Systems contains an innovated communication system for the radio that assists in the travel operations. The radio system allows the communication to take place simultaneously between the different subsystems without destructing the driver. For instance, this subsystems involves, track element, car and the control centers. The communication is therefore facilitated by the interconnection of radio links that enhances transmission. The data are conveyed through a gateway computer rather than being established directly.

References

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