In-car Emotions Detector

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ABSTRACT

As technology has been moved towards automation it is a principle to make our lives easier few things are to be explicitly done by us. Technology has made human being lazy but still there are many people who don't use automated things they think that it is good to do things buy us whatever may be the effect there is no doubt that automation is the future it will be happening the most significantly is right in our home .

1. INTRODUCTION

Technology has been used in our daily life and it is going to change the world in future. Example, people put an alarm for reminding us the work we need to do, for scheduling many things such repairing, updating etc. Data analysis also helps metropolitan and cosmopolitan cities to manage traffic management, pollution control and other major function efficiently

Now coming to the auto mobile industry technology is spreading everywhere. Smart car, all of us is aware of smart car. What is smart car? Doing something with the help of technology? for example the alarm will start ringing when where will be a pot holes around 100 meter, if someone is come a way faster than us from our behind then the alarm will ring louder, if your car unable to catch your mobile device near 10meter while you are in the car the alarm will ring.

Now all these are off course a definition of a smart car but now a day where technology means everything don't you think there will be something new in this emerging technology. Yes there are more than this; the smart car means not only to sense the device, getting road data etc.

2. PROBLEM STATEMENT

In-car emotions detector speed is depend on human's expression.   Almost all people drive a car once in their life. The speed goes change depends on our different moods. For example, if we are feeling angry then the speed may go high, if we are feeling sad we can drive crazily, if we are normal and feeling happy then the speed may be different that may be the case. So what if with the help of technology we made a car which will sense a human's expression and will decide speed automatically.

We all have different face expression depending on what we are feeling. If we are feeling angry then the expression then our expression will be different, when we are sad then our expressions are different. So on the basis of our expression the smart car will decide the speed this is the new smart car for the emerging technology. For example if you are angry and while you are angry your expressions are: you breathe faster than normal, you shout at anyone etc, so the car will sense your body language your facial expressions and if it senses your expressions are matching with one of the stored data, i.e. you are shouting on someone and it means you are angry then the speed will goes slow automatically.

Similarly if you are sad, and you are crying at that time the car sense you and it will match with one of your stored data that is you are sad today, then also the car goes at normal speed. In these all the cases even if you try to speed up the car automated system won't allow you to do this.

As shown below the speed of your car will automatically changes based on these three emotions, expressions.
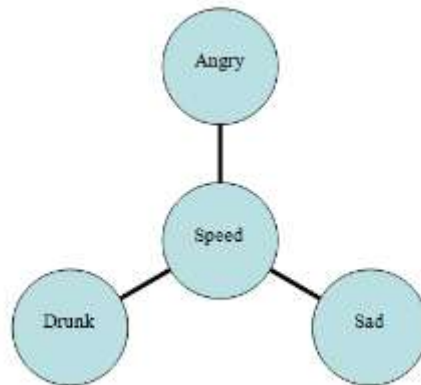
Fig. 1 changes based on these three emotions

3. LITERATURE SURVEY

There will be an indicator in the car which will display your expressions like [ANGRY], [SAD], [DRUNK] etc. This will reduce the accidental damages. The speed is predefined based on your expressions suppose your it's indicate that you are angry then the speed limit would be 30kmph, if it's indicate you are sad then the speed limit would be 25kmph, and if its indicate that you are drunk then the speed limit would be 15kmph.

3.1 Informing others If You Are Drunk And Driving:

One greater feature of these type of smart cars are, it will send a message to your family members that you are drunk and driving. For example suppose you are drunk and seating on a driver's seat it will display that you are [DRUNK] and as soon as it displays that you are drunk then the message will be delivered to your family members that xyz person is drunk and trying to drive a car which will led to an accident please follow this location to reach out to us thank you.

This type of message will deliver to your family member and then they can take some action to reach out towards you and you will be safe.

3.2 Safe Driving

With all these features and functions the accident percentage can reduce. It is safe to drive a car having all these features. Speed control and informing your closed one will help you to avoid all the accidental cases which can happen due to your inattention on driving. If you remove both of your hands from the steering wheel then the speed of the car will automatically goes to slow. This is another great feature of in-car emotion detector car. Once you start driving and as soon as both of your hands are removed from steering wheels and till 5 seconds you didn't hold the steering wheels then the speed of your car will goes down to 10kmph. All of these signs, features are let you drive a car safely without any damages and any harmful accident.
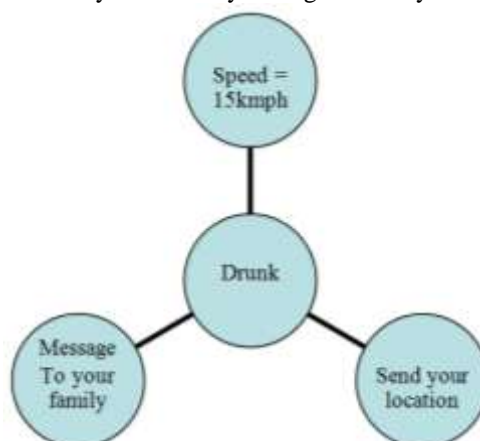

Fig. 2 Safe Driving

4. ANALYSIS

Earlier we had all types of smart cars which were enabling us to detect our devices whether it is available with us or not, to detect pot holes on the road around 100 meters, to detect if someone is coming way faster towards our vehicle etc.

But now technology is moving ahead with smart cars and can create a car which has in-car emotions detector which will let you drive safely.

5. DESIGN, DEVELOPING & IMPLEMENTATION

In such system there would be a camera which will detect all the expressions whoever will be on the driver's seat. That camera would be capturing driver's emotions as soon as he/she seat on the driver's seat. Camera will be exact in front of the person whoever will be seating on the driver seat.

There would be such a system in which it will be audible to you. Whenever there will be a change in your expressions first of all the system will express warning to control your emotions.
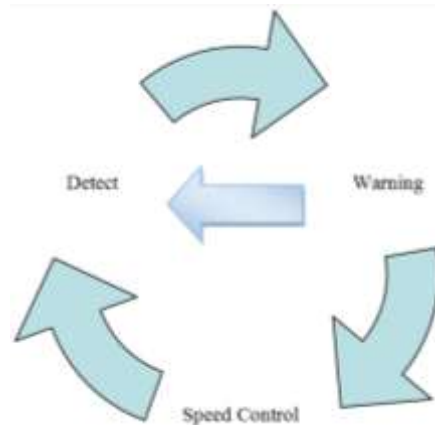
5.1 Development Cycle

Fig. 3 Development Cycle

The development of such system in such a way that there will be 3 phases of this system such as Detect, Warning, Speed Control.

First of all as soon as person seats on driver's seat the system will detect his expressions and the earning will be given accordingly, if particular person doesn't change their expression into neutral then the system will automatically turn into speed control mode. These all of three modes are independent of each other. If in case person changes their expressions into neutral after the system's warning mode then the system again will go into the detect mode.

5.2 Implementations

There are various types of such system, such as message system with emotions detections, in which the system will help you by informing to your loved ones. If you are drunk and trying to drive the car in which there is installed such system, it will start executing its algorithms by detecting your expressions, warning, and speed control along with informing to your loved ones.

Such system is different from all the system of new cars. There are various smart cars exist in the world but there is no such system implemented in any car. This system's implementation is unique. This system come up with the audible voice in which it will talk with the person in case of warning and switching off or on. Such audible system help human being to be more interactive system as google maps which helps human being to navigate the route and reach their destination without even looking towards their smart phones, similarly in car emotions detector will help people in an interactive way. People now a days like such a system which has interactive implementations.

In car emotions detector will be completely audible system as it turn on, as it turn of, as it want to warn people to control their emotions, as it changes the mode into speed control. If there is no such audible implementations people need to focus on the system whether it is showing any warning or not? Whether it is showing any type of message or not? Thus audible system would be interesting for such system. People will more interact with such system. This type of audible system will help them without looking at their system they can drive easily, as soon as driver's expressions change the system will detect it and will talk with the person who is driving the car and will let them know as a warning that they need to change their mood for safely driving. Thus the implementation of in car emotions detector helps people to drive safe with interactive and smart system.

6. CONCLUSION

In car emotion detector is a new future towards auto mobile industry with the safety features. As explain above it will help humans by detecting their expressions. This is new and as well as smart feature will be for auto mobile industry. In car emotions detector thus helps to reduce accidental causes. There will be less number of accidents in the future because some accidents come into picture because, people now a days cannot control speed when they have other emotions such as sadness, depressions, etc.

7. REFERENCES

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