Signs with Smart Connectivity for Better Road Safety

Introduction

Mobility is one of the key factors to consider in order to make cities more efficient, a necessity taking into account the millions of citizens travel to work or study centres in their vehicles. Taking into account that in our country there are about 492 vehicles per 1000 inhabitants, an effective management becomes essential to guarantee security. That improvement in management has arrived with Internet of Things, it will make daily transportation more efficient and secure. IoT is already working to ensure road safety in areas such as
vehicle maintenance, improved circulation,
navigation, and monitoring environmental conditions or the state of the roads. IoT obtains the majority of its data with the help of connected cars. These incorporate a large number of sensors that
establish communication with the cloud,
other vehicles and devices. Thanks to this it provides data and information of great utility for the improvement of road safety.

LITERATURE SURVEY

Accident detection using a piezoelectric sensor. The end consequence was that emergency services were promptly provided with accurate accident information. [8] Using the Critical Hint Framework to prevent accidents in tight curves and foggy areas.

The results were the framework captures information exchange between cars regarding speed and distance, and the vehicle is offered a choice based on calculation through visual presentation. [3] By using sensor technology to prevent accidents, LED lights are activated, with an emphasis on the advancement of cars. [4] Using a real-time system, accidents on a sloping track are avoided.

The end product was a system to recognise signs of driver tiredness and regulate vehicle speed to prevent accidents. Piezoelectric sensors can help with slope side for street safety. The outcome was changing the driver's perspective of the car from the opposite side. When a vehicle approaches from one end of the bend, the sensor capabilities detect LED light on the opposite side. By observing the LED light on/off criteria, the driver can become alert and slow down the car. [2]Mishap

anticipation using sensors led to the driver being alerted to the presence of vehicles coming from the opposite side. [7]Using ultrasonic sensors to prevent accidents on mountain highways.

[6] A framework for accident prevention in bending that makes use of ultrasonic sensors. As a result, fewer accidents occurred on bends in the road thanks to LED lights that flash when a car approaches from the other side. [9] A technique for preventing accidents combining a vibration sensor, LED, ignition key, and a DC motor As a result, it was possible to anticipate vehicle robberies using the message, audio alarm, location, and photo options. [15] Because of the current arrangement, drivers cannot predict which and when vehicles will come at turns. By doing this, we have supported a model that enables drivers to better arrange the curve and assess the presence of vehicles from a distance. Similar to how a speed trap will aid the authorities in pursuing legal action against a car owner who disobeys the law.

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