**Remote Monitoring of Vehicle using Android**

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The increasing activity in the Internet of vehicle mainly focuses on the technology of making the automotive industry "smarter". The smartphone industry is advancing consistently. Existing smartphones are endowed with multiple sensors, wireless interfaces and high computational power, being able to perform a wide variety of tasks. By combining smartphones with vehicles through an appropriate interface we are able to move closer to the smart vehicle paradigm, offering the user new functionalities and services when driving and also remote monitoring.

From our references in research articles, we have found that Internet of vehicle technology is growing rapidly and many papers are presented in this domain. Many authors have presented papers about this using individual application but a combination of automotive sensors with android and cloud make us stand out from the crowd.

Our system mainly focuses on interfacing the automotive sensors through an android platform which helps in providing additional control, storing in the cloud and retrieving those data remotely which could act as an overall monitoring of the vehicle.

We have designed our prototype for reporting about the following parameters to the client.

* Whether the vehicle is static or dynamic.
* Over Speeding.
* Crash.
* Current location.

The status of the vehicle and speed are obtained using an optocoupler which communicates with the android via Arduino and Bluetooth. The Crash alert is obtained by using the accelerometer and the current location by the GPS which is inbuilt in the mobile phone.

These data are stored in the cloud and could be remotely accessed by the client anywhere in the globe.

Block Diagram

Wheel Rpm Sensor

(OPTO Coupler)

Arduino

Android system in vehicle

Android with User

**Cloud**

Location Detection (GPS)

Accident detection (Accelerometer)

(In built)

