Accident management system using GNSS
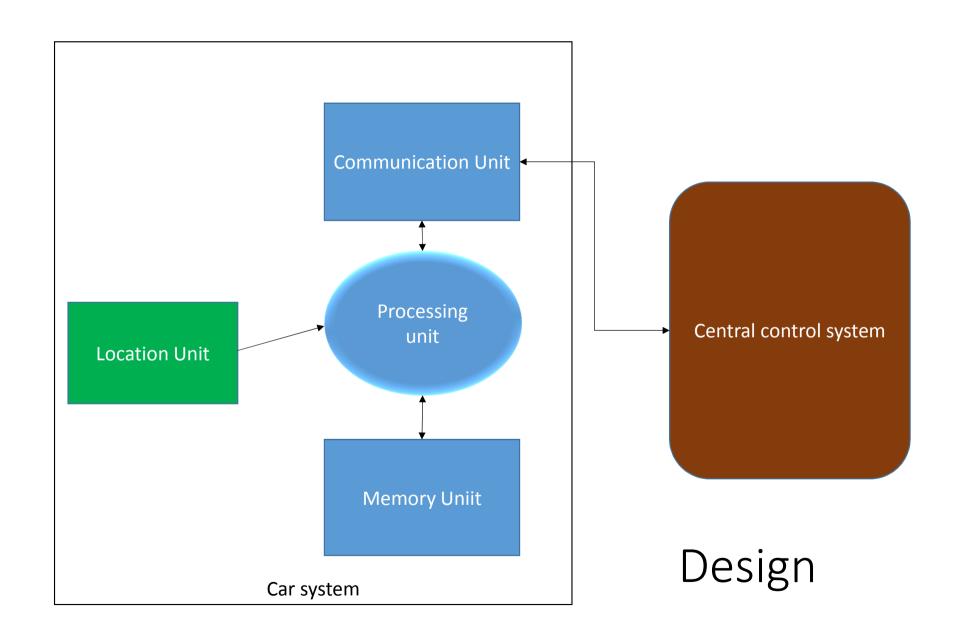
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Objectives:

- To monitor the vehicles accidents.
- To find out the location of vehicle that has been stolen.
- To map or monitor how the vehicle was travelling at that time.
- To monitor approx. velocity and direction.
- To find out actual witnesses.

Factsheet

- Nearly **1.3 million** people die in road crashes each year, on average 3,287 deaths a day.

Communication Unit

Location Unit

Processing unit

Memory Uniit
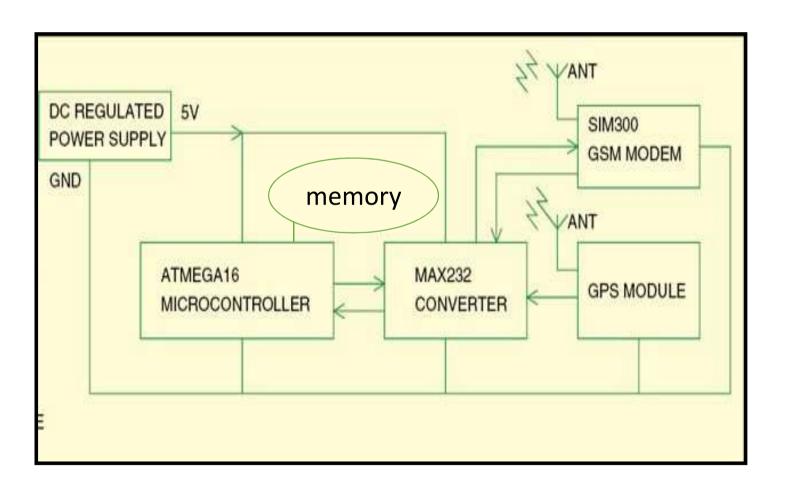
Central control system

Car system

Design

Methodology

Circuit

Data collection

- As the vehicle starts its position is recorded in every 30 sec.
- velocity can be obtained using location and time stamps.

$$V=(p1-p2)/2$$

Data monitoring

- Data is basically saved on the device but can be fetched from central system using communication module.

- It is highly secured as data can be obtained from central control unit by using a special code.

- All data are basically saved on the device with large storage capacity so no tension for the big data.

Data visualization

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Accuracy

- Same Environmental condition so the relative position have similar accuracy and the error is considered to be accumulated in same direction.
- We can also use RTKs

- We can use the GPS+INS technology.

- Data can be manually processed later.

Conclusion

This system might be very much helpful in monitoring accidents using GNSS.

Thank You