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Version Number:

Team Members :

Team No:

Module: Model Based System Engineering

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| **Ver.Rel. No.** | **Release Date** | **Prepared. By** | **Reviewed By** | **Approved By** | **Remarks/Revision Details** |
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**Document History**

CASE STUDY ON VECHILE SPEED TRACKING DEVICE

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**REQUIREMENTS:**

This case study on vehicle speed tracking device for the purpose of reducing road accidents. There is a compelling need for a device which can be used to detect vehicles driving above the approved speed limit set for various roads. The time interval taken for both sensors to detect the vehicle and the distance between the sensors is used by the microcontroller to calculate the speed of the vehicle which is then displayed on the Liquid Crystal Display (LCD) screen. A buzzer, alerting traffic police, is activated if the vehicle's speed is higher than the specified speed limit of the road.

**RESEARCH:**

The International Road Federation, Geneva Programme Center reported that approximately 2.4 million people have died in road accidents across the world, with a yearly record of 1.3 million deaths and daily record of 3,000 deaths in 2007 surveyed. Speed has been identified as a key risk factor in road traffic injuries, influencing both the frequency of road accidents as well as the severity of the injuries that result from crashes 2007. There is a need for device to track the speed of vehicles on various highways in order to ensure proper speed limit.

**BLOCK DIAGRAM:**

Voltage

Regulator 1

Rectifier

Transformer

Voltage Regulator 2

6v Battery

MICRO

CONTROLLER

IR sensor 1

LCD

Arduino

Program

Buzzer

IR sensor 2

**APPLICATIONS:**

* Road Accidents by speed of vehicle can be controlled.
* Death rate can be decreased.