**AUTOMATED SPEED CONTROLLING OF VEHICLES**

**AIM:**

The main aim of this project is to control the speed of the vehicles in particular zones using RF technology.

**PURPOSE:**

The purpose of this is to track the vehicle in the specified zone and to control vehicle speed.

**ZONE SECTION:**

**MICRO CONTROLLER**

**AT89S52**

**POWER SUPPLY**

**IR1 RX ENTRY**

**IR1 RX EXIT**

**LCD DISPLAY**

**(16 X 2 LINES)**

**IR1 TX ENTRY**

**IR1 TX EXIT**

**IR2 RX ENTRY**

**IR2 TX ENTRY**

**IR2 RX EXIT**

**IR2 TX EXIT**

**HT 12E ENCODER**

**RF TX**

**VEHICLE SECTION:**

**MICRO CONTROLLER**

**AT89S52**

**BATTERY SUPPLY**

**LCD DISPLAY**

**(16 X 2 LINES)**

**HT12D DECODER**

**L293D (DRIVER CIRCUIT)**

**RF RX**

**GEAR MOTORS**

**Power Supply:**

 **Step Down**

**Transformer**

**Bridge**

**Rectifier**

**Filter**

**Circuit**

**Regulator**

**section**

**DESCRIPTION:**

The purpose of the project is to control the traffic problem presently observed in cities, where due to large population and inadequate infrastructure, road safety enforcement and traffic regulation is very difficult. The circuit is cost effective, efficient and easy to implement on already existing vehicles.

Consider a city or town can be divided into physical zones which are classified according to different speed ranges. A transmitter is placed at all exit and entry points of the interface of zone that transmits a message signal at carrier frequency, indicating the upper limit value of the zone speed range into which the vehicle is entering at that moment, to the receiver which gives the message as an input to a preprogrammed MICROCONTROLLER embedded within the automobile which compares the speed of the vehicle measured by a sensor at the maximum allowable speed and automatically regulates the speed of the vehicle.

Here we have two sections zone and vehicle section. When the vehicle enters a particular zone the speed of the vehicle is compared with the zone speed. If it is more than the limited speed then this information from the zone section is transmitted to the vehicle section using RF transmitter. RF receiver will receive the data and gives this input to the microcontroller and controller will regulate the speed of the vehicle according to the zone.

The speed of the vehicle can be varied by varying the “duty cycle” of the pulse input. The entire system is a low cost variable electronic speed governor, small in size and easy to assemble onto an existing vehicle without disturbing its present arrangement.

This project uses regulated 5V, 500MA power supply, 7805 three terminal voltage regulator is used for voltage regulation. Bridge type full wave rectifier is used to rectify the ac output of secondary of 230/12V step down transformer.

**HARDWARE COMPONENTS:**

1. Microcontroller(AT89S52)
2. LCD Display(16\*2)
3. Power supply
4. Encoder
5. Decoder
6. RF TX & RF RX
7. Driver circuit
8. Motors

**SOFTWARE TOOLS:**

1. Kiel U vision
2. Embedded ‘C’
3. Express PCB
4. ISP

**RESULT:**

By implementing this project we can overcome the problem of heavy traffic and children accident’s at school Zones and also we can make speed control of vehicles in the cities.