# ELECTRICAL STEERING SYSTEM IN AUTOMOBILE TO REDUCE DRIVER FATIGUE

**SYNOPSIS**

 As for Indian road transport scenario is concerned, accidents are becoming a day to day cause an attempt has been made in this project to reduce such mishaps. In our project of **“ELECTRICAL STEERING CONTROL MECHANISM”** having the following operation occurs automatically in the vehicle,D.C motor turns the wheel left side when the steering rotates in the left side direction.D.C motor turns the wheel right side when the steering rotates in the right side direction.

In our project lead-acid 12 Volt batteries is used. The lead-acid batteries output is given to the limit switch. There are two Limit switches are used in this project. These switch outputs are connected to the steering D.C motor in Forward and reverse rotation of operation.

The rack and pinion arrangement is used to turn the wheel in left and right direction. The Rack is connected to the wheel with the help of liver mechanism and the pinion is coupled to the permanent magnet D.C motor shaft. The Motor is drawn supply from the battery through limit switch arrangement.

When the steering is turn in the left direction, it pushes the left side limit switches, so that the D.C motor rotate in forward direction to move the wheel in left side. Similarly When the steering is turn in the right direction, it pushes the right side limit switches, so that the D.C motor rotate in reverse direction to move the wheel in right side

**ADVANTAGES**

* To provide smooth and safety ride.
* To provide mind free ride for the motorist.
* To provide the nation with an accident free roads.
* Low Cost Automation Project

**DISADVANTAGES**

* Additional Cost is required.

**APPLICATIONS**

* It is very much useful for Car Owners & Auto-garages. This Electrical steering system is used for smooth braking of the vehicles.
* Thus it can be useful for the following types of vehicles;

1) MARUTI,

 2) AMBASSADOR,

3) FIAT,

 4) MAHINDRA,

 5) TATA

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