**PARKING SLOT INDICATOR FOR VEHICLES IN SHOPPING MALLS/APARTMENTS**

**AIM:**

The main aim of the project is to implement a parking system in order to eliminate the parking problem.

**PURPOSE:**

The purpose of the project is which deals with how to use such a small place to park all their vehicles in a sequential order and indicate the numbering system for the parking.

**BLOCK DIAGRAM:**

**Power Supply:**

POWER SUPPLY

LCD DISPLAY

SLOT1 REFLECTION SENSOR

MICRO CONTROLLER

(AT89S52)

SLOT2 REFLECTION SENSOR

SLOT3 REFLECTION SENSOR

**STEP DOWN**

**TRANSFORMER**

**BRIDGE**

**RECTIFIER**

**FILTER**

**CIRCUIT**

**REGULATOR SECTION**

**DESCRIPTION:**

Generally in this modern world the usage of area on the earth is much more and the place provided is very less. Normally in big apartments there will be much consisted place not reaching our requirements such as, if you take example of parking place provided at apartments the families living there will be more and there is no enough place to park their vehicles. Here is a project which deals with how to use such a small place to park all their vehicles in a sequential order and indicate the numbering system for the parking.

Actually here the concept is providing a slot for the vehicle to park and it will be given a number. The numbering will be depending upon the number of vehicles present in the apartment to park, if we assume it in a real time. But here for the demo purpose we have three slots for the three vehicles. Here we have an entrance gate on which we have LCD display that gives the information about the free and empty slots. Each parking slots are provided with reflection sensor. When a vehicle is entered nearby gate automatically it will displays the free slots on LCD.

**HARDWARE COMPONENTS:**

1. Microcontroller(AT89S52)
2. Power supply
3. Door system
4. IR sensor TX & RX
5. LCD(16\*2 lines)
6. Parking slots
7. Reflection sensors

**SOFTWARE TOOLS:**

1. Keil Vision
2. ISP
3. Express PCB

**RESULT:**

By using this project we can implement flexible parking system to avoid traffic problems.