**IoT based Smart Parking System**

**Abstract:**

With the exponential increase in the number of vehicles and world population day by day, vehicle availability and usage on the road in recent years, finding a space for parking the bike is becoming more and more difficult with resulting in the number of conflicts such as traffic problems. This is about creating a reliable system that takes over the task of identifying free slots in a parking area and keeping the record of vehicles parked very systematic manner. This project lessens human effort at the parking area to a great extent such as in case of searching of free slots by the driver and calculating the payment for each vehicle using parking area. The various steps involved in this operation are vehicle identification using IR Sensors, free slot detection using IR sensors and payment calculation is done on the basis of period of parking and this is done with the help of real time clock.

**Existing System:**

* No guidance is provided in the parking lot
* GSM feature creates bottlenecks

**Proposed System:**

* Tracking of Vehicles
* Web page updating of parking status

**Block Diagram:**

Nodemcu

Web Page view

LCD Display

IR Sensor

**HARDWARE:**

* NodeMcu
* LCD Display
* IR Sensor

**SOFTWARE:**

* Arduino IDE