IoT based vehicle Parking Manager

ABSTRACT

The main objective of this project is to design a solution for overcoming the parking issues that exist in public places such as malls, multiplexes etc. especially on weekends. The aim is to achieve this by using the concept of Internet of Things (IoT), wherein an Android Application is created for the customer, whose details are constantly updated by the hardware/server at the location. The features include unique identification for each vehicle, display of available parking slots on the mobile application, possibility of making reservations for the same, maintenance of a database (for the management).

EXISTING SYSTEM

In earlier systems presence of a system was necessary for management of parking slots i.e for checking available parking slots, occupied parking slots, allotment of slots for new coming vehicles etc. As this is done manually this may sometimes be erroneous and time consuming process. There are many problems faced by the customers. Some of them had to wait for a long time for the allotment of slots, when parking traffic increases manifold. This may increase outside traffic as well. The other problem is no proper charges. Details of number of vehicles entering and leaving the parking place may or may not be available with the parking staff. This causes inconvenience to the customers as well as staff managing the system.

DRAWBACKS

- It takes a lot of time for parking.
- Traffic is increased.
- No proper charges.

PROPOSED SYSTEM

In this paper, the aim is to achieve proper parking system by using the concept of Internet of Things (IoT), wherein an Android Application is created for the customer, whose details are constantly updated by the hardware/server at the location. The features include unique identification for each vehicle, display of available parking slots on the mobile application, possibility of making reservations for the same, maintenance of a database (for the management).

ADVANTAGES

- It saves time.
- It prevents prevent parking violations and suspicious activity.
- More automation and less manual activity saves on labor cost.

SYSTEM EQUIREMENTS

H/W System Configuration:-

- Processor - Pentium –IV
- RAM - 4 GB (min)
- Hard Disk - 20 GB
- Key Board - Standard Windows Keyboard
- Mouse - Two or Three Button Mouse
- Monitor - SVGA

S/W System Configuration:-

- Operating System : Windows 7 or 8 32 bit
- Application Server : Tomcat5.0/6.X
- Programming Language : Java
- Java Version : JDK 1.6 and above