

LOGIMAX TECHNOLOGIES PTE LTD

DESCRIPTION WITH CLAIMS

TITLE OF INVENTION: PARK EASY through Mobile App and Sensor based parking.

1. For eliminating the coupon parking system, sensors will be placed in a small shockproof reflector which will be fixed to each parking lot.
2. When a vehicle is parked inside the parking lot, the sensor will activate the starting time. When the vehicle moves out of the parking lot, the closing time will be calculated and the sensor will deduct the parking fee from the cash card in the IU of the vehicle. This info in the sensor will be passed on to the Gateway (relay nodes) located in the lamp post of each parking lot. From there, the info will be transmitted to the Data collectors and sent to Company's server.
3. Mobile App will notify parking lots around.
4. The app will take into account all of the respective street parking regulations, including: No Parking zones, Street Cleaning, Metered parking, Tow Away Zones, Inclined parking and Residential parking limits.
5. The app will interpret the parking rules by sending alerts if there is going to be a violation.
6. Find my Car (locate the vehicle) in a multi-level parking lot through the mobile app
7. Currently being developed for Android platform, IOS and Windows.
8. The front end is a MobileApp available to consumers and Backend system is on Cloud, and will have separate login for Admin.
9. Platform is highly scalable and runs on a No-SQL database and entirely data driven.

Detailed Description of Drawings

- Figure 1 refers to the Sensors to be placed inside Shock proof reflectors in each parking lot. When a car parks over the sensor, it is detected and the sensor relays that information wirelessly to the gateway (Relay nodes)
- Parking fee and time information from Sensors will be sent to Relay Nodes placed in information panel of the parking lot.
- All these information will be collated and sent to Data collectors placed in the company's office.
- Data will be analyzed and then stored in company's server.
- From the Server data feeds will be sent for **Reporting, Guidance** on Parking Lots and Alerts to Mobile Apps and to Authorities for data collection and assimilation.
- Figure 2- One Single Gateway will covers an area of 1 Square km
- The Gateway sends the information via the internet to the database in real time.
- The occupancy is reported to users instantly via apps and illuminated panels in the street.
- When connected to the payment method system, the authority can identify non-paying cars and with the use of App, parking wardens can work more effectively.
- **Reporting:** The Central Control can get real time analytics about Parking Bays Occupancy per parking lot and times of the day.
- Figure 3 is the diagrammatic representation of the interface between the mobile app with the secure payment gateway, Server and the data base.
- Figure 4 is the diagrammatic representation of the claims and benefits.

CLAIMS

1. Real-time communication of pricing and availability to mobile phone or PDA components.
2. Govt does not have to print any more parking coupons. Move towards Green initiative.
3. Helps to ease the traffic congestion in crowded downtown area.
4. Collaboration between parking, transportation, and decision makers
5. Existing Cash Card can be used to pay for parking.
6. Easy to find nearby Parking Space through Mobile App.
7. Find my Car (locate the vehicle) in a multi-level parking lot through the mobile.
8. No Loss of Revenue to the Govt due to effective parking fee collection.
9. The current use of Parking Enforcement Officers could be effectively used at other areas