SMART PARKING SYSTEM USING IOT

Objective

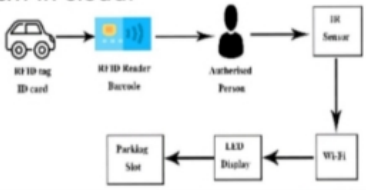
A vehicle parking system that helps drivers find a vacant spot. Using sensors in each parking space that detect the presence or absence of a vehicle, sings direct incoming drivers to available locations.

Need Of Smart Parking

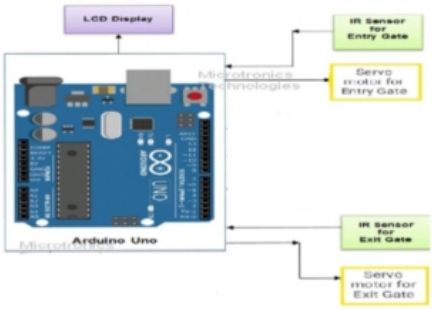
This ever growing traffic congestion and uncertainty in the parking availability and payment have thus enforced the need for a smart parking system.

IOT Parking System

This IOT- Based parking system is created by using controllers ,sensors,servers and cloud. Controllers and sensors will be placed on the ceiling of each parking slot to detect the presence of a car. Server collect the results of the sensors and stor them in cloud.



Block Diagram

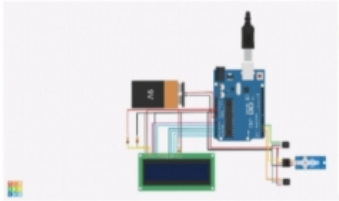


Components And Working

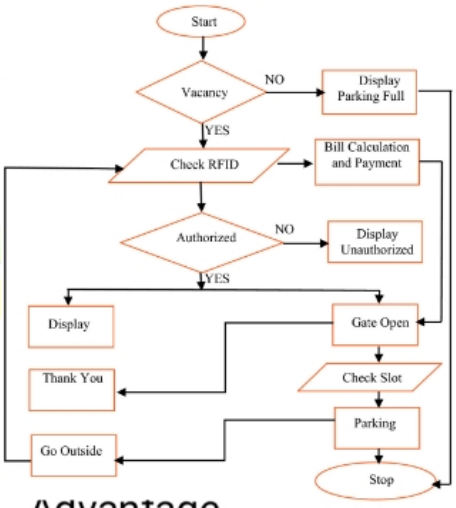
Software
- Proteus – construct circuit diagram
- Arduino Software - write code and upload it to the board.

Hardware
- Sensor acts as the input to send data information to microcontroller of available parking
- Microcontroller read the input from sensor and determine available parking and priority parking given to the vehicles user.
- LCD display show the parking lot number to be given to vehicle user
- LED are used to acknowledge the user of vehicle for their parking spot.
- RFID reader acts as input that will read data from RFID card of vehicle user
- Servo Motor acts as the output to open the gate after receive signal from microcontroller

Circuit Diagram



Flow Chart



Advantage

A smart parking technology will help optimise parking space usage, improve the efficiency of the parking operations and help the smoother traffic flow.

Final Result