

Phase 1 project

Project Title: SMART CAR PARKING

College Code: 6208

College: Gnanamani College of Technology

Branch: B.Tech/ ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

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SMART CAR PARKING

ABSTRACT:

The project entitled SMART PARKING SYSTEM using lot , the major motivation of this project is to reduce the traffic congestion in roads, multi-storeyed buildings and malls due to unavailability of parking spaces .The project displays the nearest empty slot if present with respect to user location. Our project aims to make efficient use of parking spaces. We track vacant slots in the parking space and assign that to the user. Smart parking system as described above can lead to an error-free ,reliable, secure and fast management system. In recent times the concept of smart cities have gained great popularity. Thanks to the evolution of the Internet of things the idea of smart city now

seems to be achievable. Consistent efforts are being made in the field of IoT in order to maximize the productivity and reliability of urban infrastructure. Problems such as, traffic congestion, limited car parking facilities and road safety are being addressed by IoT. The proposed Smart Parking system consists of an on-site deployment of an IoT module that is used to monitor and signalize the state of availability of each single parking space. A mobile application is also provided that allows an end user to check the availability of parking space and book a parking slot accordingly. The paper also describes a highlevel view of the system architecture. Towards the end, the paper discusses the working of the system in form of a use case that proves the correctness of the proposed model.

PROBLEM STATEMENT & OBJECTIVE:

Problem Statement:

- Parking management influences drivers search time and cost for parking spaces.
- It may also causes traffic congestion.
- Finding a parking space in most metropolitan areas, especially during the rush hours, is difficult for drivers.
- Difficulty arises from not knowing where the available spaces may be at that time traffic congestion may occur.

Objective:

- Parking space reservation can help drivers to reduce the search time dramatically.

- With the real-time reservation service, the drivers can find and reserve their desired vacant parking spaces quickly. Therefore, the gasoline and time in search of vacant parking space is reduced.

- It reduces time in search of vacant parking spaces is reduced so it reduces traffic congestion caused due that.

Requirements:

- Arduino UNO
- Arduino Cable
- LCD Display
- Servo Motor
- IR Sensor
- Bread Board
- Jumpers
- USB Cables

Flow Chart:

