Real Time Smart Parking System Using IoT

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ABSTRACT

In this rapid-growing economy, the number of car users are rising sharply in search of more parking. The full presence of a smart phone encourages users to choose solutions designed for the mobile app. The growth of Internet of Thing has covered the path for the combination of different mobile devices, wireless communication devices and technology and also mobile web applications. In this research paper we propose a "Real time smart parking system using IOT that integrates with the Web system. Provides a complete parking solution for both user and parking owner. Features are provided to save the parking space, confirm the saved user, identify the nearest available space according to the size of the car, navigate the parking area and calculate daily, weekly and monthly account details. Infrared (IR) sensors are used to recognize when parking is unoccupied.

Availability of free space with location information is distributed using WIFI module technology, microcontroller and wireless communication technology to the server and is restored even using the Web. The QR code attached to the car is used to confirm the user who keeps the parking space for an hour, daily, weekly or monthly. The design algorithm is used to recognize the closest unoccupied parking area based on the size of the motor vehicle. The owner of the parking lot can get statistics on the number of free and available places for the given time, the average weekly and weekend stay and the amount collected over a period of time and can use it to adjust variable parking fees. The mobile app is designed to provide a rich customer experience.