

Abstract

The Internet of Things(IoT), which is a popular word in computer science, was originally designed as a means of tracking, monitoring and controlling various devices through the Internet. Now-a-days IoT is the basic foundation of the so called Smart Cities, where a city acts as a network. In this futuristic design, almost every component of the city is connected with each other following some defined protocols defined to regulate the data transmission between them.

The population is heading towards the cities in a vast number in assurance of a better life, health, education as well as better opportunity for every aspect of life. According to International Parking Institute (IPI), 60 percent of the total population will live in cities by 2030, and Green Car Reports (News-feed Reportage Website) estimates that the number of vehicles on the road is about 1.2 billion now and is likely to reach 2 billion by 2035. With an increase in number of vehicles, the requirement for parking is also increasing drastically. The population is exploding but the world is not. We have a limited land resource to solve our parking issues. So a need of a balanced as well as an environment friendly parking system is of the essence.

Smart Parking involves the use of low cost sensors, real-time data and applications that allow users to monitor available and unavailable parking spots. The goal is to automate and decrease time spent manually searching for the optimal parking floor, spot and even lot.

Some top benefits of a parking solution are -

1. Optimized Parking
2. Reduced Traffic
3. Reduced Pollution
4. Increased Safety
5. Real-Time Data and Trend Insight

Keywords: Smart city; Smart parking; Internet of things; Balanced parking; sensors; Real-time data; Optimization.