*Abstract-***This paper proposes a smart parking system to solve the problem of unnecessary time consumption in finding parking spot in commercial car park areas. A parking reservation system is developed in such a way that users book their parking spots through an android device. The parking spot will be reserved via web application installed on the android device. The user has to sign up and provide the details of vehicle and a valid time slot for the reservation. This app is capable to reserve the parking and hence eliminates the hassle of searching empty slots.**

1. **INTRODUCTION**

Currently, the problem that always occurs at the car park is that time is being wasted in searching parking space. Users will keep on circling the parking area until they find an empty parking slot. This problem usually occurs in urban areas where, number of vehicles is higher as compared to the availability of parking spaces. These ineffective conditions happened because of the lack of implementation in technologies which are available in the market today.

Parkmeright is the best method to control the traffic that prevails. In most cities of India the traffic occurs due to less space for parking. Due to lack of adequate parking space in shopping areas, malls, theatres etc. congestion occurs. Cars are parked along road sides and vehicle in search of parking areas creates heavy traffic. Thus this leads to traffic congestion and insufficient parking space. Various measures have been taken to in the attempt to overcome the traffic mainly in Europe, America and Japan advanced technologies and research was developed. Although the problem can be addressed via many methods, this paper focuses on an android application for smart parking reservation.

The smart parking system is beneficial to car park operators and drivers. The parking space can also be

efficiently utilized and this increases parking capacity. Smart payment system reduces requirement for additional staff for payment relate purposes and traffic control.

Hence, for this project it is proposed that users can just reserve their parking places using their android device (phone/tablet) without having to manually go and search for the parking space. They will receive a token number to enter the parking area as well as the lot number for parking once their reservation is confirmed. Should they exceed the time to reach the parking area, the token number will be expired and they will be notified through the app.

Initially our main concentration will be on the multi-storey buildings which are exclusively made for the parking.

1. **APPROACH AND METHODS**

Reservation system:-

The building or vicinity or organization’s parking management maintains a website of their own that contains information related to parking spots available for vehicles of different sizes for a particular time on a given day. This website maintains a user database that contains the accounts of registered visitors and provision for adding new visitors. When a new visitor enters the premises, he is prompted to download the mobile application on his cell phone or he can download the app well in advance by using the Google play. He can then register himself on the app for future use. Once the registration is done, the user is provided a unique username and password for logging into his account. Existing users can use