ONLINE BASED PARKING SYSTEM

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Abstract: It is highly needed to maintain and upgrade those all things which are widely use in our personal and professional life. The Parking system is very much annoying at this time but the smart is defined as the eco-friendly as well as perfectly digital city in all the aspects. The report is all about the smart city and smart parking system with the time saving facilities and better safe and secure environment using certified data by Intelligent Transport System and latest inventions. This is really necessary to open each and everything about the new smart city which will be our next life. So, this report has each and every thing in very clear way. The system of smart parking and smart city is reliable up to at what point is showing in this report with the App-work and infrastructure work together.

Keywords: smart parking, smart city, pollution free, Prevention of car theft

1 INTRODUCTION

The role of parking spaces in the transportation system is vital. Every vehicle making a trip needs a parking space at its origin and destination, regardless of the parameters defining the trip. Various systems of managing and controlling parking have been applied since the beginning of the 19th century worldwide. The hectic schedule of the parking and their space is really irritable at all the time especially in commercial areas. The one of the main problem is that, there are plenty of increment in the motor field but not in parking space as it should be. It is highly needed to maintain and upgrade those all things, which are widely, use in our personal and professional life. The Parking system is very much annoying at this time but the smart is defined as the eco-friendly as well as perfectly digital city in all the aspects. The report is all about the smart city and smart parking system with the time saving facilities and better safe and secure environment using certified data by *Intelligent Transport System* and latest inventions. This is really necessary to open each and everything about the new smart city which will be our next life. So, this report has each and every thing in very clear way. The system of smart parking and smart city is reliable up to at what point is showing in this report with the App-work and infrastructure work together. So, the smart Parking system is really just like the revolution in the world of parking, which is able to save time and make each and everything reliable. The one of the best thing is that, it is the most convincible way in this high population. The main thing is that, we can use our all kinds of gadgets to protect our vehicle, make our life reliable and safe as well as to make the schedule time saving. The one of the best thing is that, it is really amazing to have each and everything quick and fast without making any trouble.
The term smart city is widely using now a days as it is becoming the basic needs for the entire world. The life at this time is truly fast and furious at all the time. In this fast and furious era, we need each and everything reliable with the time saving and better result. The reliable transportation without any problem is the basic needs which can't be fulfill without making the smart cities.

It is very important to make each and everything according to eco-friendly system and sustainable programs of the earth. The energies, what we are using at this time not reliable perfectly for the environment as it is polluting. The land and water is polluted due to various things like garbage management, pilgrims and deforestations etc. The smart city is the revolutionary version of these cities to maintain the management and each and everything rapidly. Smart city is used to discuss the use of modern technology in everyday urban life. This includes not only information and communication technologies but also, and especially, modern transport technologies. Logistics as well as new transport systems as "smart" systems that improve the urban traffic and the inhabitants' mobility [1]. Moreover various other aspects referring to life in a city are mentioned in connection to the term smart city like security/safe, green, efficient & sustainable, energy etc. Mobility or transportation is one of the important needs of the Smart city.
It necessary to have a efficient and smart parking systems for smart and sustainable infrastructure. In this paper, a proposed web-App system, **"*Park ON*"** is based on the use of smart phones, sensors monitoring techniques with a sensor's camera to take photos to show the occupancy of cars parks. By the image, particular vacant space can be known and used to guide a driver to a car park. By implementing this system, the utilization of parking spaces will increase. It allocates available parking space to a given driver to park their vehicle, renew the availability of the parking space when the car leaves and compute the charges due. It is also help in search of the best possible path from the current position to the parking facility and then to the destination.So, the smart parking is one of the best way to remove the rush in the city rods and ways. This is easy and reliable along with the economical.

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2   Pros of the smart parking

- It is more safe and secure because each everything is digital and fast.
- This is much more reliable than traditional parking
- It takes less area and gives more space to park then traditional parking.
- The GPS technology which is using in the smart parking system is very fine to know about the vacant or filled space in the parking.
- This is economical than the traditional parking.
- This is Eco friendly and best in the centralization of power and command. This is always connected to owner and staff through the SMS.

3   METHODOLOGY

The smart parking is the solution of many problems such as the parking space, parking spots, long and irritable cues and much more. This is the only solution to break that cue into professional way and solve this problem without any prevention. There are so many databases in the smart parking to give the reliable experience at all the time. The apps like Park ON app are truly connected through the parking system with the best way.

4   Deployed for the "Park ON" app

- The Authorized person has the only right to get the reservation confirmation number.
- There is grace period to get the reservation which has the time of 15 minutes. If the customer is coming in these 15 minutes then the reservation will be confirm otherwise he/she will lose the reservation.
- There is no relaxation after the grace period even for that customer who demanded the reservation but crossed the grace time and coming after some time. He/she have to pay full amount of fee as normal.
- One customer can have more than one reservation.
- The rate will be increased after the timing for which he/she reserved the parking and the details of the bill will automatically send to the customer.
- Each and every procedure is automatic as car detecting (Number) and the message process to the customer.
- At the time of final checkout, the user will get a printed slip along with the message with full records of timing and bill.
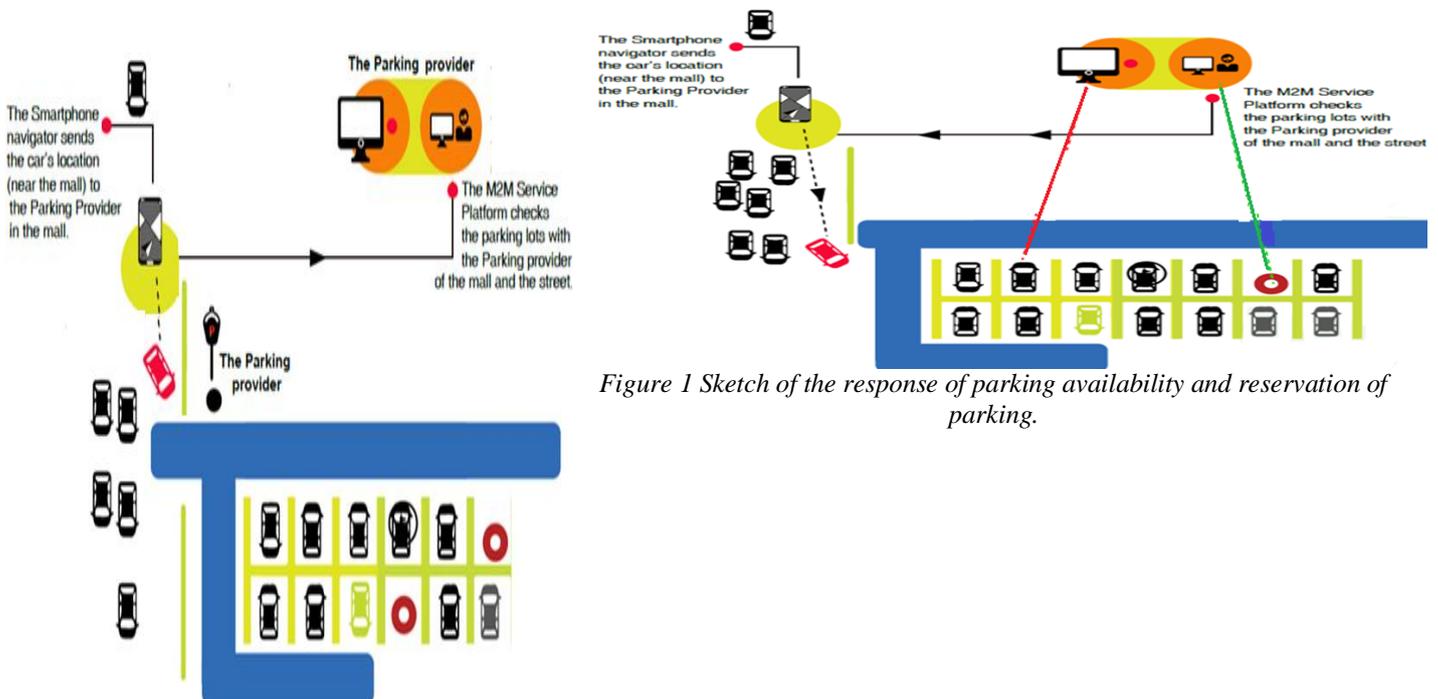

Figure 1 Sketch of the response of parking availability and reservation of parking.

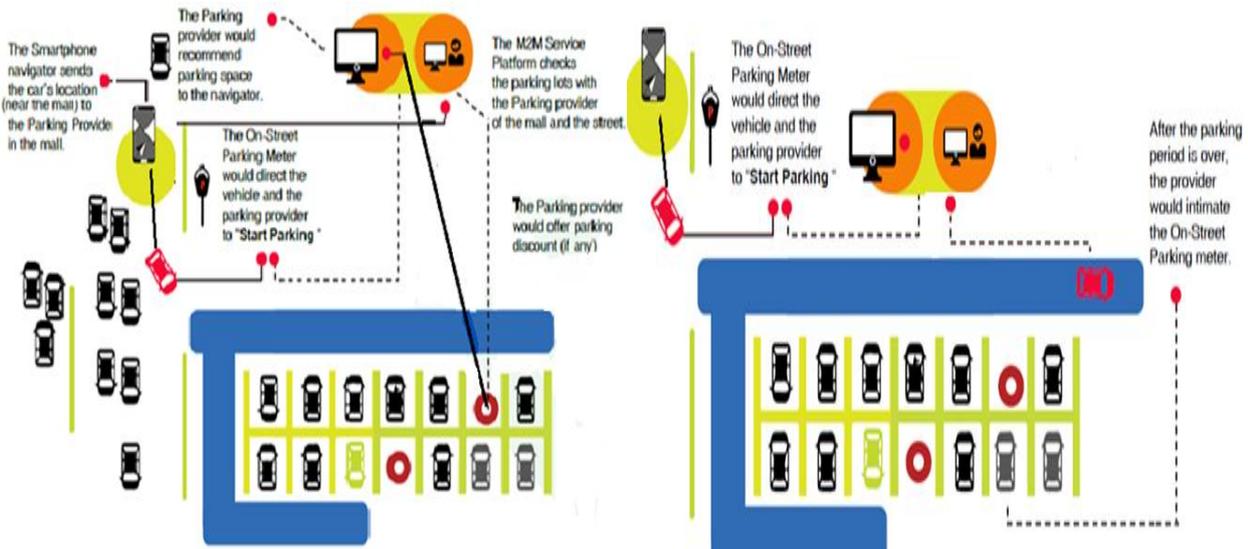*Figure 2 Sketch of the procedure of Detecting of Parking spaces*

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Figure 3 Sketch of service Procedure   *Figure 7: Final stage of the parking service.*

5   CONCLUSION

The one of the basic needs to make the smart city is smart parking as the traffic is increasing at all the time with the rate of 25-40% worldwide. The one of the basic thing which is cleared in this paper is that, Park ON app and the management of the smart parking is the key points. This is really amazing to have these facilities without any problem in the environment as the entire research shows that, everything is eco-friendly. The ICT system is rationally follows in the entire research.

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