

Phase 1: Problem Definition and Design Thinking

Overview:

As technology is growing all over the world, the need for technological advancements is also an advancing concern. With the successive trend of procuring a car in every household, parking spaces in places like shopping complex, malls, company buildings etc need to be modernised and virtualised for smart thinking and to facilitate the consumer conveniences.

Problem Definition:

As vehicles and parking lots both increase in number; consumers experience hard time to find the perfect spot for their vehicles in commercial places as well as corporate sectors. Because of this, fuel is wasted in all the time taken in waiting and searching. At the same time, customer satisfaction is compromised, as they lose their patience and time over such a meagre issue.

Design Thinking:

Smart Parking System comes to the rescue, powered by Internet of Things (IoT) Technology and the smart use of sensors.

- The idea is to create an application that can be accessed by the customers at the time of parking their vehicle in a shopping complex or mall.
- Each of the parking spaces would be monitored using sensors and the field outline of the parking space will be displayed in the app. The users can be reserving their parking lots beforehand or at the time of their arrival to the place.
- The customers can check which space is engaged, vacant or reserved previously. Reserved parkers will be intimated about their reservation through mail.
- The application would ease the user by signalling them periodically whenever a parking space is occupied to avoid collision.
- In IoT, As the data collected from the continual services is essential for future use, the application would also store information about the past parking. This will be accessible by the creator of the application (Here, we the students)

The main stakeholders also include the building owners as the application will implement and access the field outline, sensor, and parking information of their site only at their bidding.

With this implementation, the owners can ensure that customer satisfaction is up to the mark along with the efficiency of the parking spaces and safety to the customers' vehicles. The customers would also have a seamless parking experience, thereby, saving them time and money.