

Project Title: **SMART PARKING**

Project Steps

Phase 1: Project Definition and Design Thinking

- **Project Definition :**

Smart Parking is a parking strategy that combines technology and human innovation in an effort to use as few resources as possible—such as fuel, time and space—to achieve faster, easier and denser parking of vehicles for the majority of time they remain idle

DESIGN AND THINKING:

1. Project Objectives: The basic objective of a smart parking solution is to identify a vehicle's presence or absence in a particular parking space with a high degree of accuracy, and to pass on this data into a system for visualization and analysis – to be available for parking asset managers and/or enforcement officers.

2. IoT Devices Designs: IoT-based smart parking system deployment requires integrating various devices, sensors, and microcontrollers. For example, it can be a microcontroller transmitting data to the cloud environment or a Bluetooth beacon. With its help, consumers can control parking locally

3. Data Sharing Platform :Smart Parking launched Smart Cloud after partnering with Google during their deployment of the Google Cloud IoT Core platform, and it allows a complete solution for connecting, managing, and reporting on car park usage

4. Integration Approach:. 2 Integrated Approach for Smart Parking

The sensors are connected to NodeMCU Wi-Fi Module having its own unique 32-bit service set identifier (SSID) and password which will be connected to dedicated server which holds all the details of the occupancy