# Project Design Phase-I

# Proposed Solution

| | |
|---|---|
| Date | 5 May 2023 |
| Team ID | NM2023TMID21776 |
| Project Name | AI enabled car parking using open cv |
| Maximum Marks | 2 Marks |

## Proposed Solution Template:

| SNO | PARAMETER | DESCRIPTION |
|---|---|---|
| 1 | Problem Statement (Problem to be solved) | Developing a computer vision-based system that can automatically detect and monitor parking spots in a parking lot using cameras. The system should be able to analyze live video feeds from the cameras and determine the availability of parking spaces. |
| 2 | Idea / Solution description | The efficiency of parking lots by counting how much space is left in each parking zone and display that information to drivers via a smart phone app. We employ a camera to photograph the parking lot and use image processing approaches to determine if any vehicles are parked in each section. Whenever a vehicle moves into or out of a particular parking zone. |
| 3 | Novelty / Uniqueness | • It will help people to find out parking space quickly.<br>• This system will be implemented with the help of IOT(Internet of Things). |
| 4 | Social Impact / Customer Satisfaction | • Smart parking will reduce search traffic on the streets...<br>• There are fewer traffic jams, and drivers will benefit by having less traffic on the streets |
| 5 | Business Model (Revenue Model) | Videos were recorded using a camera that was ten feet above the parking lot. In order to ameliorate the system's ability to recognize objects, video footage was collected under various environmental and temporal situations. |
| 6 | Scalability of the Solution | Once the location of each parking spot is known, deep learning can be used to make a prediction on whether it is vacant or not to ensure scalability, the algorithms used for car detection and parking space detection should be optimized, and the system should be designed. |