

Project Design Phase-I
Proposed Solution Template

Date	05 May 2023
Team ID	NM2023TMID05734
Project Name	AI enabled car parking using openCV

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Consequently, once a car enters a parking garage followed by a parking space, a ping ultrasonic sensor will then be able to determine if a car is parked in the space or not. This information would then be relayed to update the network.
2.	Idea / Solution description	Smart parking solutions detect parking space availability in real-time, helping to optimize on-street parking in cities and in parking garages or surface parking lots such as those in shopping malls, train stations, corporate campuses, and more
3.	Novelty / Uniqueness	The sensor detects empty spaces and communicates this information to the map and to the driver's phone. This allows drivers to find the best parking space for their needs and keep track of it remotely.
4.	Social Impact / Customer Satisfaction	Smart parking will reduce search traffic on the streets. This will benefit traffic flow and will reduce congestions in neighborhoods with an under capacity in parking space. Therefore there are fewer traffic jams, and drivers will benefit by having less traffic on the streets.
5.	Business Model (Revenue Model)	A vision based car parking system is developed which uses two types of images (positive and negative) to detect free parking slot. In this method, the object classifier detects the required object within the input. Positive images contain the images of cars from various angles.

6.	Scalability of the Solution	<p>Products for IoT Based Smart Parking System</p> <p>The sensor detects empty spaces and communicates this information to the map and to the driver's phone. This allows drivers to find the best parking space for their needs and keep track of it remotely.</p>
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