**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 5 May 2023 |
| Team ID | NM2023TMID11883 |
| Project Name | Al Enabled Car Parking Using Open CV |
| Maximum Marks | 2 Marks |

**Proposed Solution Template:**

Project team shall fill the following information in proposed solution template.

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| --- | --- | --- |
| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Detect and recognize the make and model of vehicles entering the parking lot, as well as their license plate numbers for security purposes. |
|  | Idea / Solution description | AI-enabled car parking system using OpenCV could help to optimize parking space utilization, reduce congestion, and enhance the user experience. The system could be customized to suit the needs of different parking lots, such as those in commercial or residential areas |
|  | Novelty / Uniqueness | use of OpenCV allows for real-time object detection and recognition, which can be used to identify different types of vehicles entering the parking lot, as well as their license plate numbers for security purposes. |
|  | Social Impact / Customer Satisfaction | AI-enabled car parking system using OpenCV could have a positive social impact by reducing congestion, improving accessibility, enhancing security, increasing efficiency, and increasing customer satisfaction. |
|  | Business Model (Revenue Model) | using OpenCV would depend on several factors, such as the location of the parking lot, the target market, and the system's unique features and capabilities |
|  | Scalability of the Solution | OpenCV can be designed with scalability in mind. By leveraging cloud-based infrastructure, a distributed architecture, edge computing, machine learning, and standard APIs, the system can handle parking lots of different sizes and complexities without any compromise on performance or efficiency. |