

# Project Design Phase – 1

## Solution Architecture

Date	16 November 2023
Team Id	Team-592467
Project Name	AI Enable car parking using OpenCV
Maximum Marks	4 Marks

### Solution Architecture:

The parking management system uses real-time data sources, cameras, and sensors to capture video footage and provide information on parking space availability, vehicle movements, and environmental conditions. The data processing layer processes raw data to extract meaningful information for parking guidance and decision-making. The AI-based system uses processed data to make decisions, optimize parking allocation, and provide guidance to drivers. The user interface (UI) layer interacts with end-users, providing a user-friendly interface for accessing parking information. The communication layer facilitates data exchange between different system components, including data transmission from sensors to the AI system. The security and privacy layer ensures data security and user privacy. The database management store and manages relevant data for historical analysis, reporting, and system optimization. The system allows seamless integration with external systems like payment gateways, traffic management, and smart city platforms.

