IDEATION PHASE

BRAINSTORM & IDEA PRIORITIZATION

Date	04/11/2023
Team ID	Team-592404
Project Name	AI Enabled CAR Parking Using OPENCV
Maximum Marks	4 Marks

AI ENABLED CAR PARKING USING OPEN CV:

AI-enabled car parking systems, harnessing the power of OpenCV, are a game-changer in modern urban mobility. By employing computer vision and machine learning, these systems detect, monitor, and optimize parking spaces. OpenCV facilitates real-time object recognition, space occupancy tracking, and license plate recognition. This not only simplifies the parking process for drivers but also enhances security and revenue for operators. With the ability to guide drivers to available spots and automate payment, these systems reduce congestion, save time, and minimize environmental impact. However, they come with initial implementation costs and privacy considerations. Nevertheless, AI-enabled car parking using OpenCV represents a smart, data-driven solution for efficient and convenient parking management in our increasingly crowded cities.

BRAINSTORM & IDEA PRIORITIZATION:

Step 1: Team Gathering, Collaboration and Select the Problem Statement

Step 2: Brainstorm, Idea Listing and Grouping

2 Brainstorm
Write down any ideas that come to mind that address your problem statement.
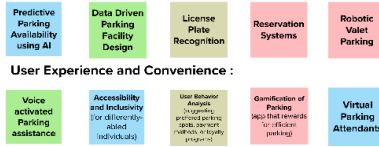🕐 10 minutes

3 Group ideas
Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.
🕐 20 minutes

Nilansh Vadodaria

- Predictive Parking Availability using AI
- Automated Parking Guidance using sensors cameras and algorithms
- Accessibility and Inclusivity (for differently-abled individuals)
- Parking assistance using mobile application
- AI Optimized shared parking space (depends upon the dimensions of the vehicle)
- Intelligent Parking Lot Navigation
- Virtual Parking Attendants
- Collaboration with Navigation apps

Pratham Gupta

- Dynamic Pricing (that adjust the pricing fees based on demand, time of day or special events)
- Integration with Navigation Apps
- Collaboration with Autonomous Vehicles
- Voice activated Parking assistance
- Parking data Marketplaces
- Data Driven Parking Facility Design
- Predictive Traffic Flow Management

Bipin Shah

- Reservation Systems
- Robotic Valet Parking
- Multi Purpose Parking Spaces (Parking lots that can be reconfigured based on demand)
- Virtual Parking Attendants (AI Chat robots)
- Gamification of Parking (app that rewards for efficient parking)
- Parking space Utilization Sensors

Kush Karnavat

- License Plate Recognition
- Smart Parking Management
- User Behavior Analysis (suggesting preferred parking spots, payment methods, or loyalty programs)
- Integration with Public Transportation Systems
- Smart Grid Integration
- Automated Parking guidance

Parking Space Management and Optimization :
- Predictive Parking Availability using AI
- Data Driven Parking Facility Design
- License Plate Recognition
- Reservation Systems
- Robotic Valet Parking

User Experience and Convenience :
- Voice activated Parking assistance
- Accessibility and Inclusivity (for differently-abled individuals)
- User Behavior Analysis (suggesting preferred parking spots, payment methods, or loyalty programs)
- Gamification of Parking (app that rewards for efficient parking)
- Virtual Parking Attendants

Integration and Collaborations :
- Collaboration with Autonomous Vehicles
- Integration with Navigation Apps
- Integration with Public Transportation Systems
- Collaboration with Navigation apps

Innovation and Advanced Features :
- Robotic Valet Parking
- License Plate Recognition

Analytics, Planning and Sustainability :
- Smart Grid Integration
- Data Driven Parking Facility Design
- Predictive Traffic Flow Management

Step 3: Idea Prioritization

4 Prioritize
Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.
🕐 20 minutes

Importance
(Teach of these tasks could get done without any difficulty or cost which would have the most positive impact?)

Grid items:
- AI Optimized shared parking space (depends upon the dimensions of the vehicle)
- Virtual Parking Attendants (AI Chat robots)
- Automated Parking Guidance using sensors cameras and algorithms
- User Behavior Analysis (suggesting preferred parking spots, payment methods, or loyalty programs)
- Collaboration with Navigation apps
- Dynamic Pricing (that adjust the pricing fees based on demand, time of day or special events)
- Parking space Utilization Sensors
- Smart Parking Management
- Integration with Public Transportation Systems
- Data Driven Parking Facility Design
- Voice activated Parking assistance
- Robotic Valet Parking
- Parking data Marketplaces
- Reservation Systems

Feasibility
Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

➔ After you collaborate
You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

Share the mural
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.

Export the mural
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

Strategy blueprint
Define the components of a new idea or strategy.
Open the template →

Customer experience journey map
Understand customer needs, motivations, and obstacles for an experience.
Open the template →

Strengths, weaknesses, opportunities & threats
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
Open the template →

Share template feedback