**Title Slide**

* + Project Title: *Proof of Concept: Intelligent Footfall Analysis through Computer Vision*
  + Date

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| ALWIN BENNY | Dharani R |

1. **Project Overview**
   * Objective of the Project
   * Importance of Footfall Analysis in Retail
2. **Problem Statement**
   * Challenges in Monitoring and Analyzing Footfall
   * Why Traditional Methods Fall Short
   * Role of Computer Vision in Addressing These Challenges

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| Dunna Abhiram | Mukesh Kumar |

1. **Project Goals and Outcomes**
   * Key Deliverables Achieved:
     + Footfall Counting Model
     + Evaluation of Model Accuracy

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| Parthiv Ganguly | Rudra Arun Chaudhari |

1. **Implementation Modules**

**Video Capture Setup**

* + - Real-Time Camera Feed Integration

**Image Processing Algorithms**

* + - Detection and Tracking Techniques
    - Handling Varied Lighting and Crowd Conditions
  + **Counting Algorithm Development**

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| TADAR TAGAR | Uppalapati Sai krishna varma |
| Saindla srinithya |  |

1. **Milestone Achievements**
   * + Algorithm Design and Testing
   * **Counting Algorithm Prototyping**
     + Model Training and Evaluation

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1. **Performance Evaluation**
   * **Accuracy of Detection**
     + Metrics: Precision, Recall, F1-Score

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| Chellam N | BATHINI VIGNANI |

1. **Challenges and Solutions**
   * Key Challenges Faced During Development
   * How These Challenges Were Overcome

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| PRANEETH TULASI | Rajmohan R |
| SHAIK SUHAIL BASHA | Deepika Helen Bodapati |

1. **Conclusions and Insights**
   * Summary of Key Findings
   * Effectiveness of the Footfall Counting System
   * Insights into Retail Store Operations
2. **Future Work and Enhancements**
   * Potential Areas for Improvement

<https://www.youtube.com/watch?v=KMJS66jBtVQ>

**1. Title Slide**

* **Project Title**: Proof of Concept: Intelligent Vehicle Tracking and Number Plate Recognition through Computer Vision
* **Date**
* **Presenters**:

**2. Project Overview**

* **Objective of the Project**:
  + Track and count vehicles moving between entry and exit points.
  + Implement number plate recognition using OCR for vehicle identification.
* **Importance of Vehicle Tracking and Number Plate Recognition in Traffic Management and Security**

**3. Problem Statement**

* **Challenges in Monitoring Vehicle Movement**:
  + Real-time vehicle detection and counting.
  + Accurate recognition of number plates under varying conditions.
* **Limitations of Traditional Methods for Vehicle Tracking**
* \*\*Role of Computer Vision and OCR in Overcoming These Challenges

**4. Project Goals and Outcomes**

* **Key Deliverables Achieved**:
  + Vehicle Detection and Counting System.
  + Number Plate Recognition (OCR) Model.
  + Evaluation of Model Accuracy.

**5. Implementation Modules**

* **Video Capture Setup**:
  + Real-time Camera Feed Integration for Vehicle Tracking.
* **Image Processing Algorithms**:
  + Vehicle Detection Techniques (e.g., YOLO, SSD).
  + Number Plate Detection using Object Detection.
  + Preprocessing for OCR (image enhancement, noise reduction).
* **OCR Application**:
  + Detecting and Extracting Number Plates from Images.
  + Applying OCR to Extract Text from Number Plates.

**6. Milestone Achievements**

* **Algorithm Design and Testing**:
  + Vehicle Detection Model Development and Testing.
  + Integration of Number Plate Detection.
* **Counting Algorithm Prototyping**:
  + Vehicle Counting System Development.
  + OCR Accuracy Evaluation and Optimization.

**7. Performance Evaluation**

* **Accuracy of Detection**:
  + Vehicle Detection Metrics: Precision, Recall, F1-Score.
  + OCR Performance Metrics for Number Plate Recognition: Precision, Recall, F1-Score.

**8. Challenges and Solutions**

* **Key Challenges Faced During Development**:
  + Variability in vehicle size, speed, and angles.
  + Poor image quality and difficult lighting conditions for OCR.
* **Solutions Implemented**:
  + Data Augmentation to Improve Detection Robustness.
  + Image Enhancement Techniques for OCR Accuracy.
* **Presenters**:

**9. Conclusions and Insights**

* **Summary of Key Findings**:
  + Successful vehicle counting through video feeds.
  + Effective use of OCR for number plate recognition.
* **Impact on Traffic Management and Surveillance**:
  + Improved efficiency in monitoring vehicle flow.
  + Enhanced security and tracking capabilities.

**10. Future Work and Enhancements**

* **Potential Areas for Improvement**:
  + Real-time Model Optimization for Faster Processing.
  + Expanding OCR Capabilities for Multi-Language Number Plates.
  + Integration with Traffic Management Systems for Automated Data Collection.