AI For Monitoring Roadside Vendors & Illegal Parking

(Artificial Intelligence Project)

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Introduction:

Roadside vendors have long been a part of Pakistan's urban environment, offering essential goods and providing livelihoods to many. However, their unregulated presence on roadsides has become a major urban management issue. Vendors often set up stalls in unauthorized areas, leading to traffic blockage, blocked pedestrian walkways, and safety hazards. In cities like Karachi, Lahore, and Rawalpindi, the rapid increase in roadside vendors and illegal parking of vehicles has worsened these problems.

With Pakistan's focus on achieving the **Sustainable Development Goals (SDGs)**, this project is aligned with **SDG11** which particularly focuses on sustainable cities and communities, the need for effective solution is crucial. Illegal parking and carts on busy roads disrupt traffic, delay emergency services, and can lead to severe accidents. Authorities struggle to manage these challenges efficiently due to the lack of real-time monitoring.

To tackle these issues, we propose a practical and efficient approach to the management authorities. Unlike traditional methods that rely on manual monitoring, the AI-based system can operate continuously, analyzing real-time footage and detecting violations with high accuracy. The system will provide actionable data to municipal authorities, helping them take swift corrective measures.

By implementing an AI-based monitoring system, management authorities can ensure better traffic flow, improved pedestrian safety, and reduced pollution which can save time and many lives.

Domain:

The domain of this project focuses on the detection of **roadside vendors and illegal parking activities** in urban areas of Pakistan. This issue falls under **Sustainable Development Goal (SDG) 11**, which aims to make cities inclusive, safe, resilient, and sustainable. The uncontrolled spread of roadside vendors, illegal parking, and trafficking of goods creates major challenges for city management, contributing to traffic blockage, safety hazards, and pollution.

By utilizing artificial intelligence to detect these unauthorized activities, this project addresses illegal activities and offers solution by detecting these issues that will make it easier for city authorities to take action and keep the streets clear. The main goal is to use technology to make city roads safer and reduce traffic problems.

Pakistan's Sustainable Development Goals (SDGs):

This AI Roadside Vendors and Illegal Trafficking Detection project focuses on **SDG 11: Sustainable Cities and Communities**. SDG 11 aims to create safe, inclusive, and well-managed cities. In Pakistan, managing urban spaces is challenging due to unregulated roadside vendors, illegal parking, and trafficking, especially in busy urban areas. This project helps tackle these

issues by using AI to detect and monitor vendors, carts, and illegally parked vehicles. By providing a tool that helps authorities address these problems in real-time, the project supports SDG 11's goal of creating more organized and livable cities.

Key Performance Indicators (KPI):

- Accurate detection
- Timely Alerts to