

Automatic Emissions and Safety Inspection System

ID: 2015-071

Executive Statement:

This technology modernizes vehicle inspections through an automated system that connects to a vehicle's OBD II port for continuous emissions and safety monitoring.

Technology Overview:

The system described in the provisional patent application utilizes a device that connects to the vehicle's onboard diagnostics (OBD II) port, interfacing with a cloud-based service. It employs persistent compute objects, or picos, which autonomously manage and securely store vehicle data, facilitating real-time communication with certifying organizations and regulatory bodies. This innovative approach aims to streamline the vehicle inspection process by providing continuous monitoring of a vehicle's emissions and safety status, thereby offering a more convenient and efficient alternative to traditional annual inspections.

Key Advantages:

- Enables continuous monitoring of vehicle emissions and safety status
- Streamlines compliance with state emissions and safety regulations
- Provides a secure and autonomous system for data management and communication
- Offers potential cost savings and conveniences for vehicle owners
- Facilitates real-time certification, potentially benefiting insurance and toll expenses

Problems Addressed:

- Reduces the hassle and time associated with annual vehicle inspections
- Improves the accuracy and reliability of emissions and safety data
- Addresses the need for a more efficient regulatory compliance process
- Solves the issue of outdated or falsified vehicle inspection records

Market Applications:

- Automotive inspection and certification services
- State and federal regulatory compliance tools
- Insurance risk assessment and premium calculation
- Smart city infrastructure for optimized toll and parking fee systems
- Environmental monitoring and research