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(57) Abstract :

CLOUD-BASED FLEET MANAGEMENT SYSTEM USING MACHINE LEARNING TECHNIQUES Accordingly, embodiments herein disclose a cloud-based fleet management system for optimizing routes, reducing fuel consumption, and improving delivery times using machine learning (ML) techniques. The proposed system comprises a vehicle in a fleet of vehicles comprising an in-vehicle device, digital logic circuitry, a memory storing executable instructions, a Global Positioning System (GPS), a sensing device, a display device and an audio device; a data repository configured to store data used to calculate vehicle routes. Further, the proposed system may include a vehicle management system calculating an initial vehicle route having a plurality of route characteristics based on the data stored in the data repository. The vehicle management system selects a first set of alternative routes from the plural sets of feasible alternative routes that satisfy a series of thresholds associated with energy use, distance, schedule specific constraint, battery capacity, amount of fuel, customer needs, and vehicle location.

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