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Patent Search

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Abstract:

The proposed invention introduces a groundbreaking approach to controlling and managing autonomous vehicle arrangements using artificial intelligence (AI). By int advanced AI algorithms, sensor fusion, machine learning, and data analytics, this invention significantly enhances the safety, efficiency, and overall performance of au vehicles. Real-time sensor data from cameras, LiDAR, radar, and ultrasonic sensors is processed and fused to create a comprehensive perception of the vehicle's surr enabling accurate object recognition and environmental understanding. The AI-based decision-making module analyzes this data and makes informed decisions, ada changing road conditions and predicting the behavior of other road users to proactively avoid collisions and prioritize passenger safety. The invention incorporates a control and dynamic routing, optimizing the vehicle's speed, acceleration, and steering based on real-time traffic flow, weather conditions, and road infrastructure. Er safety features, such as collision avoidance systems and pedestrian detection mechanisms, further improve passenger safety. Data analytics and connectivity enable analysis and communication, enhancing performance, reliability, and traffic management. The proposed invention represents a significant advancement in the field c autonomous transportation, shaping the future of intelligent and efficient mobility. Accompanied Drawing [FIGS. 1-2]

Complete Specification

Description:[001] The proposed invention aims to revolutionize the field of autonomous vehicles by integrating advanced artificial intelligence (AI) systems for contr and managing their operations. By combining cutting-edge AI algorithms, sensor technologies, and data analytics, this invention enhances the safety, efficiency, and performance of autonomous vehicles. The system utilizes machine learning techniques to learn from real-time data, make informed decisions, and adapt to changi conditions and environments. Through this invention, autonomous vehicles become more reliable, responsive, and capable of delivering a seamless and secure transportation experience.

BACKGROUND OF THE INVENTION

[002] The following description provides the information that may be useful in understanding the present invention. It is not an admission that any of the informati provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

[003] Further, the approaches described in this section are approaches that could be pursued, but not necessarily approaches that have been previously conceived pursued. Therefore, unless otherwise indicated, it should not be assumed that any of the approaches described in this section qualify as prior art merely by virtue c inclusion in this section.

[004] In recent years, there has been a rapid advancement in autonomous vehicle technology, with the potential to revolutionize transportation systems worldwide. Autonomous vehicles have the capability to navigate roads and make decisions without human intervention, offering benefits such as increased safety, improved et and reduced traffic congestion. However, the successful implementation of autonomous vehicles requires robust control systems that can adapt to complex and dy environments.

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