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(57) Abstract :
ARTIFICIAL INTELLIGENCE BASED CHARGE BALANCING BETWEEN ELECTRICAL VEHICLES IN REAL-TIME ABSTRACT The present invention discloses a system and method for real-time charge balancing among electrical vehicles within a charging network, leveraging artificial intelligence (AI) technologies. A central processing unit collects and analyzes real-time data from multiple electrical vehicles, while an AI module employs machine learning algorithms to predict and optimize individual vehicle charging requirements. The system dynamically adjusts the charging rates based on AI-generated predictions, ensuring efficient charge balancing. The communication interface facilitates seamless data exchange, and a control unit oversees the real-time adjustments. The invention enhances accuracy by considering historical charging data, user preferences, and environmental conditions. User interfaces and prioritization mechanisms further tailor the charging process. This invention provides an intelligent, adaptive charging infrastructure that optimizes energy distribution within the network, contributing to a more sustainable and user-friendly electrical vehicle charging ecosystem.

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