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Patent Search

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Abstract:

The present invention proposes a dynamic power allocation system for fast and safe charging of electric vehicles (EVs) using deep learning algorithms. The system optimizes the allocation of power to EVs by predicting their charging behavior and automatically adjusting the power allocation to ensure safety and efficiency. The system also monitors the temperature and voltage of the charging process, and automatically adjusts the power allocation to prevent overheating or damage to the battery. The invention has several potential applications and benefits, including reducing charging times, lowering costs, and improving the environment. The invention could help accelerate the adoption of EVs and contribute to a more sustainable future.

Complete Specification

Description:The proposed invention is a Dynamic Power Allocation system for fast and safe charging of electric vehicles using deep learning. This innovative system optimizes the charging process by using advanced algorithms that can dynamically allocate power to different charging stations based on a variety of factors, including battery state of charge, charging station capacity, and current demand.

The field of invention is electric vehicle charging technology, which has become increasingly important in recent years due to the rapid adoption of electric vehicles worldwide. The traditional charging infrastructure is limited by slow charging times, capacity constraints, and safety concerns, which can cause inconvenience and frustration for EV owners.

The proposed invention addresses these challenges by using deep learning algorithms to optimize the charging process in real-time, resulting in faster and safer charging for EVs. This technology has the potential to revolutionize the way electric vehicles are charged, making it more efficient and convenient for drivers while also reducing strain on the power grid.

Background of the invention:

Electric vehicles (EVs) are becoming increasingly popular as a more environmentally friendly alternative to traditional gasoline-powered vehicles. While the adoption has been relatively slow, advancements in technology and government incentives have led to a surge in EV sales in recent years. According to the International Energy Agency, the number of EVs on the road globally exceeded 10 million in 2020, and this number is expected to grow significantly in the coming years.

One of the primary challenges facing the widespread adoption of EVs is the charging infrastructure. Unlike traditional gasoline stations, which can be found on nearly every street corner, charging stations for EVs are still relatively scarce. Additionally, the charging process for EVs is much slower than filling up a gas tank, often taking several hours.

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