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(57) Abstract :
[039] The present invention relates to an integrated geolocation and smart booking system for optimizing electric vehicle (EV) charging networks. The system utilizes geospatial analysis, machine learning algorithms, and real-time traffic and energy data to identify optimal locations for EV charging station deployment. It includes a user-friendly interface for real-time slot booking, categorized by vehicle type and charging mode, with availability indicators and time-based session tracking. A dynamic pricing engine differentiates rates based on user history and demand periods, while an analytics dashboard provides insights into energy consumption, session history, and environmental impact. The invention enhances charging accessibility, reduces congestion, and supports scalable, sustainable urban mobility. Accompanied Drawing [FIGS. 1-2]

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