

Enhancing EV Charging Efficiency Through Slot Booking and Occupancy Monitoring

P. S. Sajjanshetti¹, Om Kurkut², Sairaj Pawar³, Sanchet Kuchanwar⁴

Asst. Professor, Department of Computer Engineering¹

Students, Department of Computer Engineering²⁻⁴

NBN Sinhgad Technical Institute Campus, Pune, India

Abstract: *The transition to electric vehicles (EVs) is pivotal for diminishing carbon emigrations and minimizing dependence on fossil energies. To support this shift, our Electric Vehicle Station Management System (EVSMS) is designed to enhance the charging experience for both EV druggies and facility personnel. EVSMS enables stoner enrolment, station discovery, and niche reservations, icing a smooth and effective process. A crucial point is real- time residency updates, allowing druggies to check station vacuity and find druthers when demanded. The system also integrates with Google Charts API for flawless navigation, while admin and proprietor dashboards streamline station operation. also, announcements give timely updates on station status and promotional offers, perfecting stoner engagement. By simplifying access to charging structure, EVSMS encourages wider EV relinquishment and contributes to the shift towards green and eco-friendly mobility.*

Keywords: Electric Vehicles (EVs), Electric Vehicle Station Management System (EVSMS), Slot Booking, Map, Chatbot

