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Charging Infrastructure and Grid Integration for Electromobility

This tutorial offers a comprehensive analysis of EV charging infrastructure from a power electronics perspective, covering everything from light- to heavy-duty vehicles. It examines current standards, deployment challenges, and future trends, supported by industrial case studies. Emphasis is placed on fast, scalable, and future-ready solutions essential for consumer trust, EV adoption, and supporting a sustainable, grid-integrated electric system. The tutorial is a valuable resource for specialists, practitioners, non-experts and policymakers.