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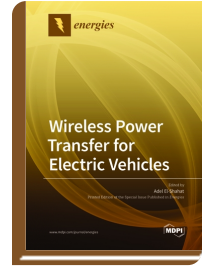
## **Wireless Power Transfer for Electric Vehicles**

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The objective of this book is to publish the most recent technological advancements, and theoretical and practical research outcomes, alongside high-quality literature reviews on wireless power transfer to charge electric vehicles. More substantial research is proposed due to the fast-growing market for electric vehicles, and recent advances in wireless power transfer techniques have the potential to make this technology available for all consumers by overcoming its drawbacks. For instance, one of the major downsides to EVs is the requirement for an automobile to be idle during charging times. This problem can be solved by implementing dynamic wireless power transfer (WPT) with a higher power transfer efficiency (PTE). So, this book endeavors to create a major forum for investigating recent advances and the envisioned future in wireless power transfer for electric vehicles in terms of modeling, design, performance, operation, control, implementation, storage, electric machines, power electronics converters, optimization, cost, charging techniques, and applications. This book provides valuable contributions to the field of electric vehicles: inductive power transfer concepts; airport inductive charging infrastructures; the design of a wireless charging system for an e-bike with grid connection; control of renewables; social, economic, political, and technical factors for dynamic wireless charging; the influence of posture and coil position on the safety of a WPT; double-coil dynamic shielding technology for WPT; reduction in cogging torque in a PM brushless DC motor; and optimal dynamic scheduling of EVs in a parking lot.



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