1. Record Nr. UNINA9910557625703321 Autore Minnaert Ben Titolo Modelling of Wireless Power Transfer Pubbl/distr/stampa Basel, Switzerland, : MDPI - Multidisciplinary Digital Publishing Institute, 2021 Descrizione fisica 1 online resource (148 p.) Soggetti History of engineering and technology Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Wireless power transfer allows the transfer of energy from a transmitter Sommario/riassunto to a receiver across an air gap, without any electrical connections. Technically, any device that needs power can become an application for wireless power transmission. The current list of applications is therefore very diverse, from low-power portable electronics and household devices to high-power industrial automation and electric vehicles. With the rise of IoT sensor networks and Industry 4.0, the presence of wireless energy transfer will only increase. In order to improve the current state of the art, models are being developed and tested experimentally. Such models allow simulating, quantifying, predicting, or visualizing certain aspects of the power transfer from transmitter(s) to receiver(s). Moreover, they often result in a better understanding of the fundamentals of the wireless link. This book presents a wonderful collection of peer-reviewed papers that focus on the modelling of wireless power transmission. It covers both inductive

and capacitive wireless coupling and includes work on multiple

transmitters and/or receivers.