

1. Record Nr.	UNINA9910820989203321
Autore	Carvalho Nuno Borges
Titolo	Wireless power transmission for sustainable electronics : COST WiPE-IC1301 / / Nuno Borges Carvalho, Apostolos Georgiadis
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , [2020] ©2020
ISBN	1-119-57857-4 1-119-57849-3 1-119-57859-0
Descrizione fisica	1 online resource (429 pages)
Disciplina	621.381044
Soggetti	Wireless power transmission
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	"This book constitutes the collected works of COST Action IC1301, a group created to bring together both academic and industry experts to align research efforts in the field of wireless power transmission (WPT). It begins with a discussion of backscatter as a solution for Internet of Things (IoT) devices and goes on to describe ambient backscattering sensors that use FM broadcasting for low cost and low power wireless applications. The book also explores localization of passive RFID tags and augmented tags using nonlinearities of RFID chips. The book concludes with a review of methods of electromagnetic characterization of textile materials for the development of wearable antennas. Wireless communications, battery-free sensors, passive RF identification (RFID), passive wireless sensors, Internet of Things (IoT), and machine-to-machine (M2M) are systems and concepts that benefit from the use of wireless power transmission (WPT) and energy harvesting solutions to remotely power up wireless devices. While recent advances in smart phones and wireless utensils appear to be unlimited, the dependence of their operation on batteries remains a weakness, mainly because batteries have a limited lifetime and require a fast charge time to achieve continuous operation. This is where the concept of WPT is

useful, bringing together energy and wireless data transmission. This substitutes the traditional powering concept, where a cable or a battery is connected to the wireless device by the transmission of energy over the air in an efficient way to power-up the device"--
