

Call for Papers: Wirelessly powering: the future A Special Issue of *Wireless Power Transfer*

Wireless Power Transfer (WPT) refers to technologies and systems with the purpose of transmitting electrical energy from a source to destination without using any physical connection. This technology is not only useful for applications where interconnecting wires is not possible or inconvenient, but also will be useful for reducing toxic material resulted from disposing of 6 billion batteries each year used for battery operated in several sensors or electronic circuits. In this context, the concept of internet of things (IoT) massification will be made possible only if the sensors battery needs are eliminated or reduced significantly.

Generally, two main techniques are considered for WPT systems: the near-field and the far-field radio-frequency (RF) methods. Inductive and/or capacitive coupling are two types of near-field method operation. However, this technique is only capable of transferring power over short distances. In contrast, with WPT based on the far-field RF technique (referred to as far-field WPT), where power is transmitted by electromagnetic radiation, the transition of electrical energy over longer distances is made possible, at the cost of lower efficiencies. This feature makes the far-field method an attractive WPT option.

Some interests have been referenced in the recent years towards low profile, low power, energy efficient and self-sustainable sensor networks. Many applications and devices are, nowadays, used for identification, tracking and inventory management. A major technology enabling these applications is Radio Frequency Identification (RFID), where a tag, that can be applied to or incorporated into a product, animal or person, is used for identification purposes using radio waves.

To further promote the development of this area, we invite researchers to contribute original research articles as well as review articles on recent advances in the design and performance analysis of microand millimeter-wave systems that employ the concepts of WPT, to be published in the *Cambridge Journals - Wireless Power Transfer*.

Topics of interest include, but are not limited to:

- Near-field (inductive, resonant) power transfer
- Microwave transmission and beam-forming
- Coils, resonators, and antennas
- Power management and power electronics for WPT
- EMC/EMI, Shielding.
- High-frequency power transmitters and devices
- High-efficiency rectifying circuits and devices
- Rectennas and rectenna arrays
- Devices and techniques for energy harvesting and scavenging
- Mobile and personal devices
- Home/Industrial-appliances
- Electric vehicles



- RF-ID and electronic tags
- SPS and space/aeronautic applications
- Medical and biological devices
- Standardization, regulations and biological effects
- DC-DC converters with WPT interaction
- Power Conditioning
- Power Control Methods

Visit http://journals.cambridge.org/wpt to submit your paper

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