



University of Pavia

Ph.D. School of Electrical and Electronics
Engineering and Computer Science

Ph. D. School in Microelectronics

IEEE Student Branch MTT-S Chapter of Pavia

SEMINAR

Current Research and Development of Wireless Power Transfer via Radio Waves and the Application

Prof. Naoki Shinohara

MTT-S Distinguished Microwave Lecturer
Research Institute for Sustainable
Humanosphere (RISH)
Kyoto University, Japan



IEEE MTT-S DML Program

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Aula Seminari (Ex Dip. di Elettronica), D Floor
Faculty of Engineering - Via Ferrata 5, Pavia

Abstract: Theory, technologies, applications, and current R&D status of the wireless power transfer (WPT) will be presented. The talk will cover both the far-field WPT via radio waves, especially beam-type and ubiquitous-type WPT, and energy harvesting from broadcasting waves. The research of the WPT was started from the far-field WPT via radio waves, in particular the microwaves in 1960s. In recent years this became a hot topic again due to the rapid growth of wireless devices. Theory and technologies of antenna and circuits will be presented in case of beam-type and ubiquitous-type WPT. The industrial applications and current R&D status of the WPT via radio waves will be also presented.

Bio: Naoki Shinohara received the B.E. degree in electronic engineering, the M.E. and Ph.D (Eng.) degrees in electrical engineering from Kyoto University, Japan, in 1991, 1993 and 1996, respectively. He was a research associate in the Radio Atmospheric Science Center, Kyoto University from 1996. He was a research associate of the Radio Science Center for Space and Atmosphere, Kyoto University by recognizing the Radio Atmospheric Science Center from 2000, and there he was an associate professor since 2001. he was an associate professor in Research Institute for Sustainable Humanosphere, Kyoto University by recognizing the Radio Science Center for Space and Atmosphere since 2004. From 2010, he has been a professor in Research Institute for Sustainable Humanosphere, Kyoto University. He has been engaged in research on Solar Power Station/Satellite and Microwave Power Transmission system. He is IEEE MTT-S Technical Committee 26 (Wireless Power Transfer and Conversion) vice chair, IEEE MTT-S Kansai Chapter TPC member, IEEE Wireless Power Transfer Conference advisory committee member, international journal of Wireless Power Transfer (Cambridge Press) executive editor, Radio Science for URSI Japanese committee C member, technical committee on IEICE Wireless Power Transfer, communications society chair, Wireless Power Transfer Consortium for Practical Applications (WiPoT) chair, and Wireless Power Management Consortium (WPMc) chair.

Organizer
Prof. Maurizio Bozzi

Ph.D. Coordinators
Prof. Paolo Di Barba, Prof. Guido Torelli

Seminar in English

For more information: maurizio.bozzi@unipv.it