

Department of Electrical and Computer Engineering

Title: « Wireless Power Transfer in Communication Networks »

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Wednesday, 30 March 2016, 17:00 – 18:00
Room XOD 02 – 013, New Campus - University of Cyprus

Abstract:

Wireless power transfer, a concept pioneered by Tesla, is at least as old as radio communications. However, it has only recently emerged as a practical technique to increase the energy efficiency of wireless networks. In this talk, we will present the main ideas and techniques behind the concept of wireless power transfer in communication networks and present some of our recent theoretical and experimental results. Specifically, we will show how successive interference cancellation, a well-known technique in wireless communications, can be exploited in order to boost the harvested energy. Moreover, we will present an experimental study of a wireless powered sensor network where the transmitter has been programmed in such a way as to reduce its power consumption.

Biography:

Constantinos Psomas is a postdoctoral researcher at the KIOS Research Centre for Intelligent Systems and Networks. He received a BSc in Computer Science and Mathematics from Royal Holloway, University of London in 2007, an MSc in Applicable Mathematics from London School of Economics in 2008 and a PhD in Mathematics from The Open University, UK in 2011. Previously, he held a postdoctoral position at the Department of Electrical Engineering, Computer Engineering and Informatics of the Cyprus University of Technology. His current research interests lie in the areas of wireless communications, network science and combinatorics.