

*The Electrical and Computer Engineering Program presents
ECEN Seminar Series*

Research Activities of I2CAT Foundation on Energy Efficient Wireless Communication.

Dr. Josep Paradells
Professor, Telematics Department
Universitat Politècnica de Catalunya

Dr. Daniel Camps-Mur
Director Ubiquitous Internet Technology Unit
i2CAT Foundation

Tuesday, 24 March 2015, 12 – 1 pm

Lecture Hall 238

Light lunch will be served

I2CAT will introduce its research on energy efficient wireless communications. This talk will be structured in two parts. In the first part Dr. Daniel Camps will present research results on the Wi-Fi Aware technology, which is a novel technology being standardized by the Wi-Fi Alliance that will allow handheld devices to continuously discover other interesting services and devices, while operating in the background in an energy efficient way. The talk will also present a performance evaluation based on packet level simulations that illustrates the performance of Wi-Fi Aware to be expected in realistic scenarios. The second part of the talk will be given by Prof. Josep Paradells, and, among others, will introduce novel results on wake up radio technologies (WuR). WuR addresses the problem of energy efficiency in constrained sensor platforms, by letting sensor devices switch off their main communications radio while still being able to trigger asynchronous communication through the power efficient WuR interface. I2CAT's custom WuR prototypes will also be introduced.



Dr. Josep Paradells is full professor in the Telematics Department of the Universitat Politècnica de Catalunya. He is the head of the Wireless Network Group (UPC) and co-director of the Ubiquitous Internet Technologies Unit at the Fundació i2Cat. His research and teaching tasks are focused on the usage of the wireless systems and Internet access technologies, in particular, on the evaluation of protocols over mobile networks (e.g. GPRS, UMTS, ad-hoc and wireless sensor networks) and their improvement by end-to-end mechanisms. Since 2003 he is working on using Internet on simple devices to connect objects and places, doing research in wireless sensor networks and embedded devices supporting mesh networking. The application of this technology is very wide and covers from community networks and home networks to smart cities. He has published more than 80 papers in Journals and conferences. He has been advisor of 15 Ph.D. thesis and more than 40 master thesis. He has also participated in a large number of projects with public funding and private funding. Some of the companies he has been collaborating with are: Vodafone, Telefonica, Orange, Alstom, Fundación Vodafone, Endesa, Abertis or the Barcelona Municipality.



Dr. Daniel Camps-Mur is currently responsible for the Ubiquitous Internet group at I2CAT in Barcelona. Previously, he was a senior researcher at NEC Network Laboratories in Heidelberg, Germany. He holds since 2004 a Masters degree and since 2012 a Ph.D. from the Polytechnic University of Catalonia (UPC). His research interests include mobile networks, Software Defined Networking and Internet of Things. Daniel has published his research in several journals and conferences, and some of his work has been contributed to the Wi-Fi Alliance and to the IEEE 802.11 group.

FOR MORE INFORMATION:

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