Laboratoire de Conception et d'Intégration des Systèmes

Seminar

Wednesday, 24 May 2023
16:15, D030
lcis.grenoble-inp.fr

Title: RAIN RFID Technology: Past, Present and Future

Abstract: RAIN RFID is a popular technology based on passive modulated backscatter, with applications ranging from supply chain and retail to vehicle identification and healthcare. In this talk, we will cover the history of RFID, will discuss the present state of RAIN RFID including its capabilities and applications, will go through some relevant latest research developments in this field, and will outline a potential future for this technology.

Short bio: Pavel Nikitin (Senior Member, IEEE) received the Ph.D. degree in electrical engineering from Carnegie Mellon University, Pittsburgh, PA, USA, in 2002. He worked with Honeywell, Intermec, University of Washington, IBM, and Ansys. He is currently a Senior Staff Antenna Designer with Impinj, Inc., Seattle, WA, USA, where he is involved into research and development of RFID products. He is also an Affiliate Associate Professor with the Electrical Engineering Department, University of Washington.

He has authored over 50 IEEE technical publications and has over 60 U.S. and European patents. He was a recipient of the 2017 and 2010 IEEE RFID Conference Best Paper Awards and the 2005 Antenna Measurement Techniques Association Symposium Best Paper Award.

Publication Topics: radiofrequency identification, UHF antennas, equivalent circuits, decoding, dipole antennas, microcontrollers, protocols, radiofrequency integrated circuits, real-time systems, HVAC, indoor radio, UHF radio propagation, circuit simulation, antennas, hardware description languages, multipath channels, radiowave propagation, waveguide theory, Internet, backscatter, channel capacity, frequency response,integrated circuit design, integrated circuit modelling, mixed analogue-digital integrated circuits.