

El Instituto de Ingeniería Eléctrica de la Universidad de la República y el Capítulo IEEE CASS (Circuits and Systems Society) de Uruguay invitan a las conferencias:

Proyecto AntelSat EPOSMote and the Internet of Things Jueves 28 de Noviembre 17:00hs

Salón 001, Facultad de Ingeniería - Universidad de la República.

Cronograma

17:00 - Proyecto AntelSat. Juan Pechiar, IIE, Facultad de Ingeniería, Universidad de la República. Enrique Maciel, ANTEL.

17:45 - Break

18:00 - EPOSMote and the Internet of Things. Dr. Antonio Augusto Fröhlich, Associate Professor, Universidad Federal de Santa Catarina, Brasil.

19:00 - El capítulo IEEE CASS de Uruguay y próximas actividades

Abstracts

Proyecto AntelSat

La Facultad de Ingeniería (UdelaR), ANTEL, y el Centro Universitario Escuela de Diseño están finalizando la construcción de un satélite de clase CubeSat que será calificado para vuelo y puesto en órbita a principios de 2014. Enrique Maciel (ANTEL) y Juan Pechiar (FING-UdelaR) presentarán aspectos técnicos del proyecto, que incluyó la especificación, diseño y construcción de lo que será el primer satélite uruguayo.

EPOSMote and the Internet of Things

The Internet of Things is a central element of Ubiquitous Computing and Smart Environments and recently became subject of intense academic research. The potential for services around the theme has been demonstrated by numerous projects and is now also attracting important sectors of the economy. However, most demonstrations of IoT presented thus far makes use of technologies developed for PCs and SmartPhones. Assuming that each object connected to the Internet will feature a TCP/IP stack implemented on the same premises of a PC is certainly a mistake, especially considering aspects such as power consumption, size, cost, and security. Moreover, the IP protocol itself, the driving force of the technological revolution we live, seems to have reached its limit when it comes to IoT, since it does not encompass the notion of space and time that is so crucial to the emerging technology. The EPOSMote Project, currently under development at LISHA provides an open hardware and software platform for IoT research. Its main goal is to investigate and demonstrate alternatives to the PC legacy. The mote was designed around a modular architecture, with interchangeable components in four layers: processing (currently AVR8 and ARM7), communication (currently CC1000, ZigBee and PLC), I/O (various types of sensors, leds, buttons, USB, serial, and J-Tag) and energy (currently battery, USB and photovoltaics). Modules can be easily tailored to specific applications following the philosophy of Application-driven Embedded System Design (ADESD). This talk presents the project, its role in IoT research, applications currently under development, and recent achievements toward a cross-layer embedded communication protocol for IoT that preserves compatibility with TCP/IP.

Organizan:

