

SESIONES CIENTIFICAS DEL CTB VIERNES 21 DE NOVIEMBRE DE 2014

PONENTE: Dra. Teresa Riesgo

Teresa Riesgo (MEng'1990, PhD'1996) is Full Professor of Electronics at ETS Ingenieros Industriales of UPM, researcher at Center of Industrial Electronics (CEI-UPM). Her research activities have evolved from microelectronic design and test to digital embedded systems. She has participated in many research projects (funded by national and international programs or directly by companies). She has published around 40 papers in international journals and more than 150 conference papers. She is Associate Editor of IEEE Transactions on Industrial Electronics, and General co-chair of the conference Design of Circuits and Integrated Systems (DCIS'2014) to be held in Madrid on November 2014. Her main research interests are related with embedded systems design, focusing on low power architectures, wireless sensor networks and reconfigurable hardware.

"From Wireless Sensor Networks to Evolvable Hardware (Embedded Systems at CEI-UPM)"

"Embedded systems" is one of the key and more diverse research topics in the field of electronic design. It covers aspects from hardware to software, applications from very simple control systems to large and complex signal processing with embedded intelligence.

In this talk we will show the advances and applications of embedded systems technologies, running from the wireless sensor networks, based on tiny elements with small local processing and simple communications, to evolvable systems, whose hardware can be dynamically adapted to the system needs. Applications like distributed monitoring and control, image processing, and even brain computing interfaces will be targeted during the lecture.