

Kolloquium

Am Freitag, dem **05. September 2014**, um **15:00 Uhr** hält

Professor Dr. Manel Puig-Vidal
Department of Electronics
Universität Barcelona

einen Vortrag mit dem Titel

Biological sample characterization from in-vitro towards single cell nano-characterization

Der Vortrag findet im OFFIS in Raum F02 statt.

Abstract:

Custom Electronic design is nowadays a critical point for biological sample characterization. A proper biosensor electronic interface and efficient system design is an important step in a portable equipment development for fast diagnosis and therapy. In-vitro and/or in-vivo characterization techniques are based on indirect measurements of bio-particle concentration. A valuable research starts to understand in molecular and cellular level the processes involved in a biochemical reaction. Single cell nano-characterization technique is an extremely growing research area, especially in the SPM based techniques. With these techniques, ultra-high resolution images (sub-nm) of living cells can be acquired, mechanical and electrical properties of the cells can be studied and, with functionalized tips, interactions between receptors and ligands can be determined quantitatively. Some research activities and projects in this field, developed at the Bioelectronics group in the University of Barcelona, will be addressed during the talk.

Short biography:

Dr. Manel Puig-Vidal was born in Igualada (Barcelona) Spain, in 1965. He received his Master's Science degree in Physics from the Barcelona University, in 1988. From 1989 to 1993 he was research fellow in the Laboratoire d'Automatique et d'Analyse des Systèmes (LAAS) in Toulouse, France, working in Latch-up free Smart-Power technology for automotive applications. He received his Ph.D degree in Microelectronics from the University Paul Sabatier in Toulouse in 1993. In 1995 he has obtained the position of Professor Titular at the University of Barcelona. His academic activity is focused in Electronic Engineering, Informatics Engineering and Biomedical Engineering careers. Dr. Manel Puig-Vidal is the head of the Bioelectronics research group associated to the Institute of Bioengineering of Catalunya (IBEC), Barcelona (Spain). Dr. Manel Puig-Vidal has participated in different European projects in the field of microrobotics for biomedical applications. His research work concerns bioelectronics systems design, portable electronics for in-vitro diagnosis medical devices, microrobotics and AFM single-cell nanobiocharacterization for biomedical applications.

Eingeladen von: Prof. Dr.-Ing.habil. Sergej Fatikow

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