**“Towards Greener Smartphones with Microwave Measurements”**

## IEEE MTT/AP Orlando Chapter Meeting

**DATE/TIME: Thursday, May 29th ,2014 (10:30am-11:30am)**

**SPEAKER:** Prof. Dominique Schreurs, University of Leuven (KU Leuven), Belgium

**ABSTRACT:**

Today's smartphone handsets offer a wide range of functions (phone, GPS, Bluetooth, WiFi, .) to customers, although are still perceived as expensive and energy consuming (requiring a daily recharge). The aim of this talk is to show how microwave measurements impact smartphone design. By optimally engineering the type of measurements made before and after design (linear, nonlinear, loadpull, modulation, .), the efficiency of the design process not only increases, but tougher specifications such as smaller form factor and lower energy consumption can be met more easily. This observation is especially valid in the design of green multi-mode wireless radios, due to the delicate balance between energy efficiency and linearity (that is, cross talk between channels).

The didactic level of this talk will be adapted to the background of the audience.

**BIOGRAPHY:**



Dominique Schreurs received the M.Sc. degree in electronic engineering and Ph.D. degree from the University of Leuven (KU Leuven), Belgium. As post-doc fellow, she was visiting scientist with Agilent Technologies (USA), ETHZ (Switzerland), and the National Institute of Standards and Technology (USA). She is now full professor at KU Leuven. Her main research interests concern the (non)linear characterization and modelling of microwave devices and circuits, as well as (non)linear hybrid and integrated circuit design for telecommunications and biomedical applications.

Prof. D. Schreurs signed up as IEEE Student Member in 1990, and got elevated to Fellow in Jan. 2012. She has been serving on the IEEE MTT-S AdCom since 2009 in various roles such as Education Chair (2012-2013). Prof. D. Schreurs is presently the Editor-in-Chief of the IEEE Transactions on Microwave Theory and Techniques. She is also Distinguished Microwave Lecturer for the term 2012-2014.

Beyond IEEE, Prof. D. Schreurs also serves on the Executive Committee of the ARFTG organization. She was General Chair of the 2007 and 2012 Spring ARFTG Conferences. In 2002, she was one of the initiators and is now still co-organizer of the successful NVNA Users' Forum, held 3 times/year. She was also co-chair of the European Microwave Conference in 2008 and initiated the IEEE Women in Microwaves event at the European Microwave Week. She is also Associate Editor of the International Journal of Microwave and Wireless Technologies.

Prof. D. Schreurs is reviewer for all IEEE MTT-S journal publications as well as TPRC member of IMS and RWW. She is also reviewer for many MTT-S (co-)sponsored conferences as well as for other IEEE journals and conferences. She has been regularly session chair at conferences, and acted as judge for student competitions.

Prof. D. Schreurs is co-editor of four books, contributor to seven books, and (co-)author of over 100 journal papers and 350 contributions at international conferences.

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