



University of Pavia

Ph.D. School in Electrical and Electronic  
Engineering and Computer Science

Ph.D. in Microelectronics



AP/ED/MTT Italy Chapter (North)

## SEMINAR ANNOUNCEMENT

# Commercial Applications for RF MEMS

*Prof. Stepan Lucyszyn*

Imperial College London (UK)

**IEEE MTT-S Distinguished Microwave Lecturer**

Friday, May 25, 2012, 11:00 am

Aula Seminari ex Dipartimento di Elettronica (floor D)

**Abstract** – Radio frequency micro-electro-mechanical systems (RF MEMS) have been heralded as a technology fit for the 21st century, offering unsurpassed RF performance over more conventional solid-state electronic devices. In recent years, this technology has seen a rapid rate of expansion because of its potential for advancing new products within a broad range of applications; from ubiquitous smart sensor networks to mobile handsets. Indeed, within the US, Asia and Europe, R&D is almost at fever pitch. The high levels of investment come second only to the expectations for commercial exploitation. The first RF MEMS device was reported 30 years ago by IBM. After experiencing the peak of inflated expectation in 2003 and subsequent trough of disillusionment in 2005, RF MEMS switches have emerged into the slope of enlightenment. They are now commercially available on the open market, offering new solutions for realizing high performance reconfigurable microwave circuits and systems. A major new book, entitled *Advanced RF MEMS* (edited by the speaker), is scheduled for publication at the beginning of 2010. This lecture will explain the many facets of this technology and demonstrate how RF MEMS can move itself out of the laboratory and into real commercial applications.

**Biography** – Stepan Lucyszyn is currently a Reader (Associate Professor) in Millimetre-wave Electronics at Imperial College London. For over 15 years, Dr Lucyszyn has been working on millimetre-wave electronics and, since 2004, investigating the behaviour of materials and passive structures operating at THz frequencies. Dr Lucyszyn has (co-)authored approximately 130 papers and 11 book chapters in applied physics and electronic engineering, and delivered many invited presentations at international conferences. In 2009 he was appointed an IEEE Distinguished Microwave Lecturer for 2010-2012.

### Organizer

Prof. Maurizio Bozzi

### Ph.D. Coordinators

Proff. M. Calzarossa e F. Maloberti

The seminar will be held in English.

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