

**Thursday, March 4**

Scaife Hall Auditorium

Room 125

3:00 p.m.

**Raafat Mansour**

Professor

University of Waterloo

**Raafat Mansour** is a Professor of Electrical and Computer Engineering at the University of Waterloo where he holds an NSERC/COM DEV Industrial Research Chair on Radio Frequencies (RF) Engineering. He is the founding Director of the Center for Integrated RF Engineering at the University of Waterloo ([www.cirfe.uwaterloo.ca](http://www.cirfe.uwaterloo.ca)). Prof. Mansour currently leads a research group consisting of 25 Ph.D and M.A.Sc graduate students and postdoctoral fellows. Prior to joining the University of Waterloo in 1999, Dr. Mansour was with COM DEV, Cambridge, Ontario, Canada over the period 1986-1999, where he progressed through various technical and management positions in COM DEV's Corporate R&D Department.

Throughout his industrial and academic career, Dr. Mansour has been able to successfully apply theoretical solutions to practical problems to address issues of key interest to the RF and MEMS engineering communities. Dr. Mansour holds 31 US and Canadian patents to his credit (25 awarded and 6 pending). He has more than 200 publications and co-author of a Wiley book Published in July 2007 and has contributed 4 chapters to two other books. Dr. Mansour received several Best Paper Awards and outstanding research performance awards both from COM DEV and the University of Waterloo. Dr. Mansour is a Fellow of the IEEE and a Fellow of the Engineering Institute of Canada (EIC).

## RF MEMS Applications in Communication Systems

The Micro-Electro-Mechanical System (MEMS) technology has the potential of replacing many Radio Frequency (RF) components used in today's mobile, communication and satellite systems. In many cases, such RF MEMS components would not only reduce substantially the size, weight and power consumption but also promise superior performance in comparison with current technologies. The talk outlines the research activities at the University of Waterloo in RF MEMS with a focus on:

- RF MEMS switches and integrated switch matrices
- RF MEMS impedance tuners and phase shifters
- MEMS-based tunable filters
- RF MEMS on flexible substrates
- Integrated RF MEMS/CMOS devices
- Intelligent reconfigurable RF MEMS-based devices

### ECE Seminar Hosts

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