



Seminar

**High-Q Tunable Filters**

By

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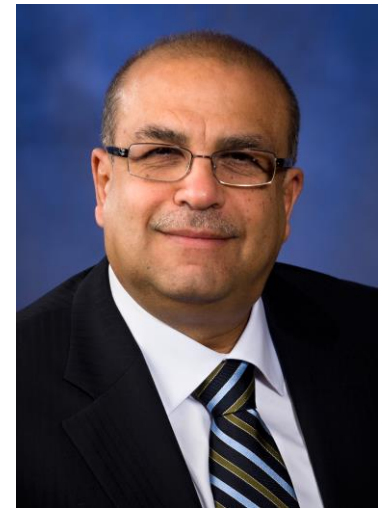
**Date:** January 19, 2016 (Tuesday)  
**Time:** 3:30 pm  
**Place:** Room 222, Ho Sin-Hang Engineering Building, CUHK

**Abstract**

High performance tunable filters are needed in wireless base stations and satellite systems to facilitate efficient utilization of the available frequency spectrum. They can be employed to replace large filter banks in advanced systems concepts that self-adapt to environmental requirements. In addition, tunable filters can be used to consolidate more hardware into fewer units, which in turn will reduce size and logistics management. The presentation addresses recent developments in high-Q multi-band and multi-function filtering devices tuned by piezomotors, MEMS, BST and semiconductor tuning elements. It also discusses techniques for adaptive filter tuning.

**Biography**

**Raafat Mansour** is a Professor of Electrical & Computer Engineering at the University of Waterloo and holds a Tier 1 Canada Research Chair in Micro-Nano Integrated RF Systems. He is the Founding Director of the Center for Integrated RF Engineering (CIRFE) at the University of Waterloo ([www.cirfe.uwaterloo.ca](http://www.cirfe.uwaterloo.ca)). He held an NSERC Industrial Research Chair for two terms (2001-2005) and (2006-2010). He currently holds a Tier I Canada Research Chair in Micro-Nano Integrated RF System. Prior to joining the University of Waterloo in January 2000, Dr. Mansour was with COM DEV Cambridge, Ontario, over the period 1986-1999, where he held various technical and management positions in COM DEV's Corporate R&D Department. Dr. Mansour holds 35 US and Canadian patents and more than 350 refereed publications to his credit. He is an author of Wiley book and contributed 6 chapters to four other books. He served as the Chair of the Technical Program Committee of the IEEE-IMS2012 Symposium. Dr. Mansour is a Fellow of the IEEE, a Fellow of the Engineering Institute of Canada (EIC) and a Fellow of the Canadian Academy of Engineering (CAE). Dr. Mansour was the recipient of the 2014 Professional Engineers Ontario Engineering Medal for Research and Development.



**\*\*\* All are welcome to attend \*\*\***

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