



# IEEE Okanagan Subsection Presents

Prof. Mohamed-Slim Alouini  
King Abdullah University of Science and Technology (KAUST)

## Improving the Spectral Efficiency of Communication via Relays

**Time & Date:** 2pm-3pm, Tuesday May 28, 2013  
**Location:** EME 1202, UBC Okanagan campus



**Talk Abstract:** It is well known that cooperative communications extends the coverage area of the networks, offers a considerable reduction in the transmission power which lowers the interference to neighboring users, and maintains connectivity to terminals with no direct link to their base station. However with half-duplex relaying, these advantages come at the expense of reduction in spectral efficiency since two time slots are needed to transmit a packet from source to destination. In this talk, we propose two new schemes termed: energy efficient relaying and RF/FSO relaying that address this issue. Some selected numerical and simulation results are presented to illustrate the usefulness of the newly proposed schemes.

**Speaker Biography:** Mohamed-Slim Alouini received the Ph.D. degree in electrical engineering from the California Institute of Technology (Caltech), Pasadena, CA, USA, in 1998. He served as a faculty member with the department of Electrical and Computer Engineering of the University of Minnesota, Minneapolis, MN, USA, then with the Electrical and Computer Engineering Program at the Texas A&M University at Qatar, Education City, Doha, Qatar. Since June 2009, he has been a Professor of Electrical Engineering in the Division of Physical Sciences and Engineering at King Abdullah University of Sciences and Technology (KAUST) Thuwal, Makkah Province, Kingdom of Saudi Arabia, where his current research interests include the design and performance analysis of wireless communication systems.

**Refreshments** will be provided. For further information please contact:  
Julian Cheng (email: [julian.cheng@ubc.ca](mailto:julian.cheng@ubc.ca))