The IEEE Ottawa Joint Chapter of Signal Processing, Oceanic Engineering, and Geoscience and Remote Sensing and the IEEE Ottawa Communications Society, Broadcast Technology Society, and Consumer Electronics Society (ComSoc /BTS /CES) Joint Chapter and Algonquin College Student Branch (ACSB) are cordially inviting all interested IEEE members and other engineers, technologists, and students to the

**IEEE Signal Processing Society Distinguished Lecture**

**Greener Video Coding**

*By*

Prof. Ricardo L. de Queiroz

*Universidade de Brasilia*

**DATE:** Friday, 2 March, 2012

**TIME:** Refreshments, registration and networking: 05:00 pm – 05:30 pm; Lecture: 05:30 pm – 06:30 pm

**PLACE:** Room T129, Algonquin College, T-Building, 1385 Woodroff Ave., Ottawa, Ontario, Canada

**Parking:** Parking area # 9. Please respect restricted areas. No fee after 05:00 pm

**Admission:** Free. Registration required. To ensure a seat, please register by e-mail contacting:

- Dr. Yifeng Zhou ([yifeng.zhou@crc.gc.ca](mailto:yifeng.zhou@crc.gc.ca))
- Dr. Jun Li ([jun.li@crc.gc.ca](mailto:jun.li@crc.gc.ca))
- Dr. Wahab Almuhtadi ([almuhtadi@ieee.org](mailto:almuhtadi@ieee.org))

**Abstract**

Computers and information technology are proving themselves as energy-hungry partners in a society with carbon emission issues to be resolved. Video coding is a very computation-intensive, energy-demanding task. We approach green computing applied to video by setting task parameters in order to minimize energy consumption for a given performance. We applied the concept to H.264/AVC video coding, showing that one can substantially reduce energy consumption at the expense of a small rate-distortion (RD) performance penalty. We used a state-of-the-art implementation, x264, for tests and show RD results for comparisons and discussions.

**Speaker's Bio**

Dr. Ricardo L. de Queiroz received his Ph.D. degree from The University of Texas at Arlington in 1994. He joined the research staff at Xerox Corp. from 1994 to 2002. Since 2004 he is with Universidade de Brasilia, where he is now a Full Professor at the Computer Science Department. Dr. de Queiroz has published over 140 articles in Journals and conferences and contributed chapters to books as well. He also holds 46 issued patents. He is an elected member of the IEEE Signal Processing Society's Multimedia Signal Processing (MMSP) Technical Committee and a former member of other committees and editorial boards. He has been appointed an IEEE Signal Processing Society Distinguished Lecturer for the 2011-2012 term. He also organized many conferences and IEEE chapters. His research interests include image and video compression, multirate signal processing, and color imaging.