Seminar Announcement

Title: Perception-Inspired Video Processing for Ubiquitous Projection
Speaker: Prof. Homer H. Chen, IEEE Fellow, National Taiwan University
Day/Time: 12:00 -1:00 pm, Friday, October 2nd, 2015
Location: ENG 105, Ryerson University, Toronto, (http://www.ryerson.ca/map)

Abstract: Ubiquitous projection, meaning being able to project an image anywhere, is no longer a fiction. With an embedded projector, mobile or wearable devices can project an image on any nearby surface such as wall, desktop, floor, clothes, or palm. Although the miniature of projection technology brings about a new form of social interaction and augmented reality, ubiquitous projection is not free of challenges due to the fact that most surfaces in our living environment are not conditioned for image projection. Besides geometric deformation, color distortion is inevitably introduced to the projection. In this talk, I will focus on radiometric compensation for ubiquitous projection and give an overview of the techniques developed in my lab for combating the limited gamut and dynamic range of physical devices. Then I will show how a perception-inspired computational paradigm can drive ubiquitous projection to an unprecedented performance level and it can also enhance backlight-scaled images displayed on LCDs.

Biography: Homer H. Chen (M’86-SM’01-F’03) received the Ph.D. degree in electrical and computer engineering from University of Illinois at Urbana-Champaign. Dr. Chen’s professional career spans across academia and industry. He has held various R&D management and engineering positions with companies in the USA over a period of 17 years, including AT&T Bell Labs, Rockwell Science Center, iVast, and Digital Island. He was a U.S. delegate for ISO and ITU standards committees and contributed to the development of many interactive multimedia technologies that are now part of the MPEG-4 and JPEG-2000 standards. He has been with the College of Electrical Engineering and Computer Science, National Taiwan University, Since August 2003, where he is currently a Distinguished Professor. His research interests lie in the broad area of multimedia signal processing and communications.


All are welcome. No registration needed

Contact: Prof. Xiao-Ping Zhang,
CASPAL (Communications and Signal Processing Applications Lab.)
Department of Electrical and Computer Engineering,
Ryerson University

www.ee.ryerson.ca
www.caspal.ryerson.ca