



THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering

Seminar

Visual Scene Understanding for Autonomous Driving

by

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Canada

Date : 4 Dec., 2014 (Thur.)
Time : 11:00am – 12:00noon
Venue : Room 222, Ho Sin Hang Engineering Building
The Chinese University of Hong Kong

Abstract

Developing autonomous systems that are able to assist humans in everyday's tasks is one of the grand challenges in modern computer science. Notable examples are personal robotics for the elderly and people with disabilities, as well as autonomous driving systems which can help decrease fatalities caused by traffic accidents. In order to perform tasks such as navigation, recognition and manipulation of objects, these systems should be able to efficiently extract 3D knowledge of their environment. In this talk, I'll show how graphical models provide a great mathematical formalism to extract this knowledge. In particular, I'll focus on a few examples, including 3D reconstruction, 3D object and layout estimation and self-localization.

Biography

Raquel Urtasun is an Assistant Professor at the Department of Computer Science, University of Toronto. From 2009-2014 she was an Assistant Professor at TTI-Chicago, a philanthropically endowed academic institute located in the campus of the University of Chicago. She was a visiting professor at ETH Zurich during the spring semester of 2010. Previously, she was a postdoctoral research scientist at UC Berkeley and ICSI and a postdoctoral associate at the Computer Science and Artificial Intelligence Laboratory (CSAIL) at MIT. Raquel Urtasun completed her PhD at the Computer Vision Laboratory, at EPFL, Switzerland in 2006 working with Pascal Fua and David Fleet at the University of Toronto. She has been area chair of multiple machine learning and vision conferences (i.e., NIPS, UAI, ICML, CVPR, ECCV, ICCV), she is on the editorial board of the International Journal of Computer Vision (IJCV), and served in the committee of numerous international conferences. Her major interests are statistical machine learning, computer vision and robotics, with a particular interest in structured prediction and its application to autonomous driving.

**** ALL ARE WELCOME ****