## Agricultural Process Engineering Laboratory The Second Open Seminar, 2011

## Presenter : Xuefeng Liang (Ph.D) (Associate Professor, Dept of Intelligence Science and Technology, Graduate School of Informatics,, Kyoto University) Title : "Understanding through dynamic appearance" Room: W-406, Faculty of Agriculture Building Time and Date : 14:50~15:50, July 26 (Tue), 2011 場所:京都大学農学部総合館 W-406室 日時: 2011年7月26日(火)14:50~15:50

**Abstract:** To understand visible human behavior is a key topic in information and communication technology. Being able to interpret and encode human behaviors will absolutely improve and extend performances of Human Machine Interaction. Faces often convey information about rapidly changing communicative cues, particularly regarding emotional states. However, the state-of-the-art still stays on the recognition of identity, age, gender, or ethnicity using still photography, which may not reflect the subject's emotion.

I will discuss how to formulate the dynamic facial expression in both spatial and temporal spaces using Feature fusion, Machine learning and kernel methods to provide a novel framework that is robust to understand emotion behind dynamic appearances. Also, I am looking for an extension on agriculture studies, such as 1. measurement of Vitamin A in beef cattle serum using pupil light response; 2. Seedling growth monitoring. Moreover, I would like to introduce Machine Learning algorithms that can be used on fruit quality control.

本セミナーは, 学内外を問わずどなたでも参加自由ですので, 興味を 持たれている方がおられましたら, お誘い下さいますようお願い申し上 げます。不明な点等がありましたら, 地域環境科学専攻 農産加工学 研究室, 近藤(内線6170)までお知らせ下さい。