NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

PH.D DEFENCE - PUBLIC SEMINAR

Title: **VIP: A unifying framework for eye-gaze research**

Speaker: Mr Ma Keng Teck

Date/Time: 22 September 2014, Monday, 04:00 PM to 05:30 PM

Venue: Executive Classroom, COM2-04-02

Supervisor : Dr Terence Sim, Associate Professor, School of Computing

Abstract:

Eye-gaze data has been used in a wide range of computer science research. The reference model for saliency research is bi-directional: top-down and bottom-up. In biometric research, the identity of a person can be inferred from eye-gaze. In human-computer interface, eye-gaze is a response of the interactions between the tasks and the visual stimulus. These models are incomplete and we propose the VIP framework. This formal framework captures the dependence of eye-gaze on Visual stimuli, Intent, and Person, making it more complete and subsuming all existing models.

In this talk, I will explain the framework and its utility. Specifically, I will present my latest work on inferring the user's profile from eye-gaze; instantly and implicitly: Eye-2-I. The first I is from Instant and 2nd I from Implicit. Eye-2-I can implicitly infer an user's demographic, personality, interests and emotions with just minutes of eye-gaze and facial data.