

# PH.D

## FINAL ORAL EXAMINATION

**Wednesday, September 14<sup>th</sup>**  
**12:30p.m. @ 223 Atanasoff**

**Yin Kam Hung**

Faculty Advisor: Professor Wensheng Zhang

### **User Authentication Based on Habit: A Feasibility Study**

Security issues have been researched for a long time till now in the many aspects such as communication, software system, cryptography, and system authentication. Authentication methods such as password and fingerprint are the most common methods being used today. They have been used in website login, unlocking smartphone, etc.. However, these traditional authentication methods may not be user-friendly or sufficiently secure. In order to keep a highly secure system, a user needs to use a complex password, which may be hard to remember.

In this thesis, we designed and implemented a new authentication way based on human habit. The content of new authentication is a house password game; a user sets up the house environment and a key location. Then, he or she plays the game to find the key at the authentication time. System implementation and evaluation have been conducted to study the feasibility of this approach.

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