SE&T Colloquium Series-Fall 2014

Speaker	Dr. Khandaker A. Rahman Department of Computer Science and Information Systems
Title	***Proposing a Novel Defense Mechanism to Spoof Attacks Targeting Keystroke Dynamics based Cyber-behavioral Biometric System***
Abstract	Despite showing promise in securing cyberspace access, keystroke dynamics (KD) based continuous verification systems have recently been exposed to successful spoof attack. Here we propose a counter-measure to deter the attack. We designed and experimented with two novel verifiers based on linguistic and liveliness features extracted from the text typed and keystroke events respectively. Experimental results show that these verifiers when integrated (or fused) with the existing vulnerable state-of-the-art KD verifiers, can significantly reduce the effectiveness of the attack. Results, generated from 144 different attack experiments on 50 user samples, show that the attack success rates on an average reduce to 18.41% from a staggering 72.17% when the proposed measures are applied. Overall, we achieve a 74.48% decrease in attack success rates over the existing systems. We argue that our method can be an effective patch targeting the security loophole in existing systems.
Date	Tuesday, September 16
Time	4:10-5:00pm
Place	Pioneer 240
	Refreshments will be served at 4:00pm.