



The IPSI Lecture Series Presents:



Online Social Networks: Malware Threats and Countermeasures in Relation to Network Topological Properties

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The popularity and diverse uses of online social networks (OSNs) give incentives to hackers and cybercriminals to carry out attacks using malicious software (malware). Given large populations of major OSNs (e.g., 1.6 billion users on Facebook), a successful attack can result in tens of millions of user profiles being compromised and computers and devices being infected. This seminar provides an overview of malware threats in OSNs and countermeasures. In this talk, I will first present topological properties of OSNs, e.g., low average network distances, power-law distributed node degrees, and high clustering coefficients. I will then discuss different types of malware targeting OSNs and their users as well as countermeasures against OSN malware. The discussion also highlights how the topological properties of OSNs affect the propagation of malware and design of countermeasures.

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2:00 PM – 3:15 PM

University College, RM 140

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Dr. Uyen Trang Nguyen received a Bachelor of Computer Science and Master of Computer Science in 1993 and 1997, respectively, from Concordia University. She received a doctoral degree in Computer Science in 2003 from the University of Toronto. From 1995 to 1997, she was a software developer at Nortel Networks, Montreal. She joined the Department of Electrical Engineering and Computer Science at York University in 2002 and is currently an Associate Professor. Her research interests are in the areas of information security, wireless networking, mobile computing, and online social networking. Dr. Nguyen was a program co-chair of the 3rd International Conference on Mobile, Ubiquitous, and Intelligent Computing (MUSIC 2012), and a program co-vice-chair of the 7th International Conference on Future Information Technology (FutureTech 2012) and the 13th IEEE International Conference on High Performance Computing and Communications (HPCC 2011). She also serves as a publicity co-chair of the 2018 Network Traffic Measurement and Analysis Conference (TMA 2018).