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THE CONCORDIA INSTITUTE FOR INFORMATION SYSTEMS ENGINEERING
IS PLEASED TO PRESENT THE FOLLOWING GUEST LECTURE IN OUR CIISE DISTINGUISHED SEMINAR SERIES

Dr. Jean-Marc Robert, Professor

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École de Technologie Supérieur (ETS), Montréal

OLSR - Two different security aspects of Mobile Ad Hoc Networks

OLSR is a popular proactive routing protocol for mobile ad hoc networks (MANETs). In this presentation, two different related security problems will be considered. One of the key aspects of OSLR is the use of special nodes called Multipoint Relay (MPR) nodes which broadcast efficiently the topology information. If one of them is malicious, it would represent a major threat against the security of the network. How can we avoid selecting suspicious nodes which demonstrate strong characteristics influencing the MPR selection algorithm? The MPR selection algorithm may have a major impact on the lifetime of the ad hoc networks. In sensor networks, the same nodes are always selected as relays nodes. On the other hand, selfish nodes may avoid to be selected as relay nodes to preserve their energy. How can we select the relay nodes to prolong the lifetime of the ad hoc networks? Therefore, this presentation addresses different aspects of the routing problem in mobile ad hoc networks containing malicious compromised nodes.

Biography: Jean-Marc Robert joined the Département de génie logiciel et des TI of École de Technologie Supérieur (ETS) of Montréal in June 2006 after spending 10 years in the telecommunication industry. Prof. Robert worked at Gemplus (worldwide smart card leader) as the director of the North American security group and at Alcatel CTO Research and Innovation (worldwide telecommunication manufacturer leader) as a principal security researcher. His research interests include cryptography and computer security from telecommunication infrastructures to computer hosts, from protocol security to embedded software security.

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