SEMINAR

COMPUTER SCIENCE - IT - MECHATRONICS ENGINEERING - MSCS

March 1, 2019, 2:00-3:00 pm

Broome 2490

Speaker: Dr. Reza Abdolee

Title: Cybersecurity in Resource-Constraint Internet-of-Things (IoT) Networks

Abstract: The Internet-of-Things (IoT) is an innovative technology with the ability to turn ``things'' into autonomously connected intelligent devices. This technology can enhance the quality of life by minimizing human direct interventions with everyday tasks through advance automation mechanisms. The application of IoT is emerging in several industries such as manufacturing sectors, smart spaces, agriculture, healthcare, and defense. Typically, IoT devices are designed to be low-cost with limited storage and computation capacity. Therefore, due to adopting less sophisticated encryption techniques, they are more susceptible to cyberattacks. In fact, cybersecurity is the main obstacle that has substantially hindered the advances and proliferation of IoT technology across different business sectors. In this seminar, Dr. Abdolee talks about the lightweight cryptography algorithms suitable for resource-constrained IoT networks, and discuss strategies to enhance their security levels.

Bio of the speaker: Dr. Reza Abdolee is an Assistant Professor in the Department of Computer and Electrical Engineering & Computer Science at California State University, Bakersfield. Before joining CSUB, he was a Software Engineer at Qualcomm Inc, working on the software modeling of digital cameras used in smartphones and IoT wireless devices. While pursuing his Ph.D. in McGill University, he has been collaborating with Adaptive System Lab in University of California, Los Angeles (UCLA) on developing optimization algorithms for distributed systems and networks. In Addition to several patents, Dr. Abdolee has published more than 40 peer-reviewed papers in IEEE journals and international conferences, including, IEEE Transactions on Signal Processing , IEEE Transactions on Mobile Computing and IEEE Transactions on Control of Network Systems. He is currently conducting several multidisciplinary research projects, supported by National Science Foundation (NSF), US Department of Agriculture (USDA), and California Department of Food and Agriculture (CFDA). Dr. Abdolee's academic perfromance has been recognized with several prestigious awards and scholarships, including, Natural Sciences and Engineering Research Council of Canada (NSERC), a doctoral research scholarship from Quebec Research Funds on Natural Science and Technology (FQRNT) and a German Academic Exchange Service (DAAD)- RISE International Internship award.

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