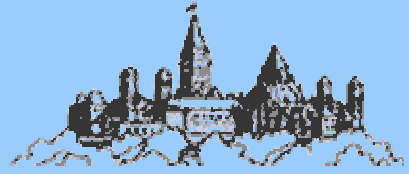




IEEE

Ottawa Section



Biometrics, RFID and Smartcard in Healthcare

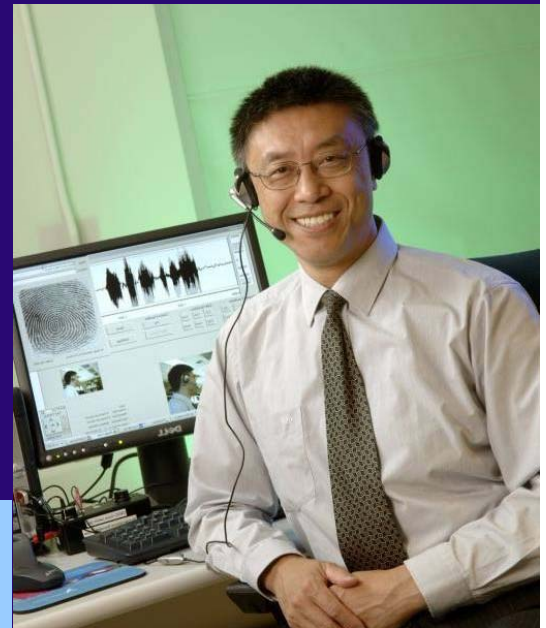
Qinghan Xiao, Senior Member, IEEE

Defense Research and Development Canada

Biometrics, radio frequency identification (RFID), and smartcards are emerging technologies that have been considered to enhance security-related applications such as access control, identity verification, and information protection in a combination. These technologies can be applied in healthcare to provide reliability, scalability, visibility, and accuracy. For instance, a healthcare smartcard system, using both biometric and smartcard technologies could be used to strongly authenticate both healthcare providers and beneficiaries, leading to a better security for patient information, reduction or elimination of benefit frauds, and the possibility of reduced administrative costs. Biometric and RFID technologies can be combined in a staff and patient tracking system to improve the analysis and throughput in emergency rooms, clinics, outpatients, and operating rooms. This seminar will address the following issues based on the speaker's experience in biometric, smartcard, and RFID technologies:

- What is biometrics?
 - Different biometric technologies along with their advantages and limitations
 - Generic biometric system configuration
- What is a Smartcard?
 - Type of smartcards
 - Smartcard applications
- What is RFID?
 - RFID versus contactless smartcards
 - o Commonalities
 - o Differences
- Pharmaceutical and healthcare applications
 - Healthcare smartcard system
 - Patient identification and care
 - Medical asset tracking
 - Authenticity and safety of drug supply
- Benefit and challenges
 - Reduce healthcare paperwork
 - Protect patient records
 - Vulnerabilities and security threats

Dr. Qinghan Xiao, IEEE Senior Member, is a Defence Scientist at the Defence R&D Canada. He serves as the Vice Chair of Task Force on Biometrics of ISATC (the IEEE/CIS Technical Committee on Intelligent Systems Applications), and the Testing and R&D Chair of Interdepartmental Biometrics Working Group (Canada). His current research interests include biometrics, smart card technology and RFID security issues. Dr. Xiao is a Canadian delegate of the ISO/IEC JTC1 SC37 standards committee on biometrics, and leads "Red Team/Blue Team" study for the Canadian Operational Support Command. He has been invited as a session chair and speaker to many national and international conferences. Dr. Xiao holds a Ph.D. in Computer Science from the University of Regina.



August 16, 2007

admission is free

5:30 – 7:00 pm

Mackenzie Building 4359

Carleton University



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