



UMass Lowell Computer Science Colloquium Announcement

Speaker: Prof. Wenjing Lou, WPI
Date & Time: Wednesday, March 28, 2007, 3:00pm--4:00pm
Place: Olsen 311, Refreshments are served at 2:40pm

Multi-user Broadcast Authentication in Wireless Sensor Networks

A wireless sensor network (WSN) usually consists of a large number of ultra-small, low-cost devices that have limited energy supply, computation, memory, and communication capacities. WSNs have drawn great attention recently due to their broad applications in both military and civilian domains. Security is essential to ensure the success of WSN applications, especially for those mission-critical applications working in unattended and even hostile environments. However, security design in WSNs has ever been a challenging task due to their open, distributed, compromise-prone, and resource-constrained nature. In fact, security of WSNs is currently a very active topic and there are many interesting and challenging research issues. In this talk, we will introduce our latest research on WSN security.

Due to the time limitation, the presentation will be focused on multi-user broadcast authentication in WSNs, which is key to the security of broadcast/multicast communication in WSNs. Some other interesting security research topics we have been working on will also be briefly discussed as time permits.

Bio:

Wenjing Lou is an assistant professor in the Electrical and Computer Engineering department at Worcester Polytechnic Institute. She obtained her Ph.D degree in Electrical and Computer Engineering from University of Florida in 2003. Her current research interests are in the areas of ad hoc and sensor networks, with emphases on network security and routing issues. She is an editor for IEEE Transactions on Wireless Communications and is currently serving as the technical program co-chair for the general symposium, IEEE GLOBECOM 2007.