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## Dependable Sensor Networks

by Grace Guiling Wang, Computer Science, New Jersey Institute of Technology

**Date:** February 16, 2009 (Monday)  
**Time:** 6:00 pm (refreshment starts at 5:45 pm)  
**Place:** 202 ECEC, NJIT

### About the Speaker

Grace Guiling Wang received her BS degree from Nankai University, China. She received the PhD degree in Computer Science and Engineering and a minor in Statistics from the Pennsylvania State University in May 2006. She is currently an assistant professor in the Computer Science Department at the New Jersey Institute of Technology. Her research interests include network security, wireless networks and mobile computing, with a focus on wireless sensor networks.

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### About the Talk

Dependability is a fundamental requirement in designing sensor networks. Specifically, a sensor network should successfully detect the phenomena of interest, e.g., intruding enemy, and reliably transmit the detection results to users. To achieve the above goals, the network must have sufficient coverage, which enables prompt and accurate detection of the phenomena; the network must also be secure to defend against attacks from an adversary such that the detected events can be transmitted back to the base station without being modified. In this talk, the speaker will first present two distributed algorithms for efficient deployment of mobile sensor nodes to achieve a desired level of coverage. Then the speaker will present a light-weight and compromise-resilient authentication protocol.

**Sponsors:** IEEE Communications Society North Jersey Chapter  
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