UW CENTER FOR
PATTERN ANALYSIS AND MACHINE INTELLIGENCE

GRADUATE SEMINAR SERIES

Multi-hop Interference-Aware Routing Protocol for Wireless Sensor Networks

Speaker: Allaa Hilal

Date: November 14, 2012

Time: 4:30 pm – 5:00 pm

Place: E5 (4128) Refreshments will be served

Abstract :

Wireless Sensor Networks (WSN) have gained much attention in recent years, however, these networks suffer from limited energy supply and noisy wireless links. Thus, efficient energy management and noise handling are key requirements in designing WSNs. This paper proposes an interference-aware and energy aware routing algorithm such that power dissipation is uniform among all sensors. The proposed algorithm utilizes time synchronization and traffic scheduling to avoid interference. This work mathematically models the problem as node clustering optimization. Simulation results show the optimized proportions of packets sent by nodes to ensure uniform energy dissipation, as well as, reduced interference within clusters.

WATERLOO ENGINEERING

CPAMI