Research Colloquium
Department of Computer Science

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will speak on:

QoS Provisioning at Medium Access Control (MAC) in Wireless Networks

11:00 a.m. on Friday, February 10 in Houser 108

This talk investigates and provides novel solutions for a new research avenue to support Quality of Service (QoS) in contention-based Medium Access Control (MAC) in wireless networks. Although QoS is easier to manage in centrally controlled MAC protocols and reservation-based MAC protocols, they are hardly implemented in today's products. Additionally, end-users like contention-based protocols because they plug and play. Almost all the end-user networks need a MAC layer and the IEEE 802.11 WLAN and Ethernet have become widely deployed since these contention-based MAC protocols are simple, robust, and allow fast installation with minimal management and maintenance costs. There is a clear need to support QoS guarantees and provisioning at the contention-based MAC layer. Bandwidth allocation in contention-based distributed wireless LANs is very challenging due to the contention constraint, the packet-based network, and, most importantly, that an unknown number of stations is competing for access to the only channel available. As a consequence, both guaranteeing QoS and efficiently allocating bandwidth are challenging issues. This talk addresses these issues.
