



*Dept. of Electrical and Computer Eng.*

# *Colloquium*

## On Scalable Transmission Algorithms with Data-loss Tolerance and QoS Guarantees in Wireless Ad-hoc or Sensor Networks

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Room: 260

2015 Neil Avenue

Abstract: Data loss is significant and prevalent in current wireless ad-hoc or sensor networks. Further, mission-critical applications intended to be carried by these networks ultimately mandate soft but certain Quality-of-Service (QoS) guarantees (e.g., on end-to-end delay of data). Considering prevailing data-loss, QoS demands, and energy-efficiency, we will argue a need for a new and scalable data-transmission algorithms. As a precursor, we will present a service model, and associated analytic results, incorporating data-loss and some QoS guarantees.

Biography: Sami Ayyorgun is a Technical Staff Member in Computer, Computational, and Statistical Sciences Division at the Los Alamos National Laboratory of the U.S. Department of Energy. He received his Ph.D. degree from the University of California-San Diego (UCSD) in 2001, and M.S. degree from the State University of New York at Buffalo in 1996; both in Electrical & Computer Engineering. He received his B.S. degree in Electrical & Electronics Engineering from Bilkent University, Ankara, Turkey in 1994. His research interests are in the general areas of Computer and Communication Networks, in particular with focus on wireless (cellular, ad-hoc, sensor, or mesh) networks, Quality-of-Service guarantees, analytic service models for data delivery, scheduling, modeling and characterization of network traffic, power-aware computing/communications, network calculus, or performance analysis.

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