

EHSAN ARYAFAR

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RESEARCH INTERESTS

- Protocol design and performance evaluation of wireless networks
- Network Quality of Service (QoS) and congestion control
- Multihop wireless media access (MAC) protocols

EDUCATION

Ph.D. Candidate in Electrical Engineering, GPA: 4.33/4
Rice University, Houston, TX

M.S. in Electrical Engineering, 2005 – Sep 2007 GPA: 4.06/4
Rice University, Houston, TX
Thesis: “*Distance-1 Constrained Channel Assignment in Single Radio Wireless Mesh Networks*”
Advisor: Dr. Edward Knightly

B.S. in Electrical Engineering, 2001-2005
Sharif University of Technology, Tehran, Iran

HONORS AND AWARDS

Rice President’s Fellowship, 2005-present
Ranked 16th among 350,000 participants of Iran’s annual nationwide university entrance examination, 2001

PUBLICATIONS

J. Shi, **E. Aryafar**, T. Salonidis and E. Knightly, “Synchronized CSMA Contention: Model, Implementation, and Evaluation”, in *Proceedings of IEEE INFOCOM 2009*, Rio De Janeiro, Brazil, April 2009

E. Aryafar, O. Gurewitz and E. Knightly, “Distance-1 Constrained Channel Assignment in Single Radio Wireless Mesh Networks”, in *Proceedings of IEEE INFOCOM 2008*, Phoenix, AZ, April 2008

RESEARCH EXPERIENCES

Analysis and implementation of CSMA protocols with synchronized contention on the Rice University Wireless Open-Access Research Platform (WARP)

Theoretical analysis of an edge based channel assignment scheme and design of appropriate wireless medium access protocol for single radio wireless mesh networks, Master thesis

Performance analysis of dynamic channel selection strategies in multi channel wireless systems, Rice University qualification exam

TEACHING EXPERIENCES

Teaching Assistant of graduate courses in Advanced Topics in Computer Networks, and Digital Logic Systems, Rice University

PRESENTATIONS

“Distance-1 Constrained Channel Assignment in Single Radio Wireless Mesh Networks”, INFOCOM Conference, Phoenix, AZ, 2008

“Bounds on the Benefit of Network Coding: Throughput and Energy Saving in Wireless Networks”, INFOCOM Conference, Phoenix, AZ, 2008

Rice – TI Research Seminar, Dallas, TX

Rice – Intel Research Seminar, Houston, TX

PROFESSIONAL ACTIVITIES

Student Member of : ACM, IEEE and IEEE Communications Society

Reviewer for: IEEE Journal of Selected Areas in Communications, IEEE Transactions on Networking, Infocom 2007, Mobicom 2007, Sigmetrics 2007, ICDCS 2007, MobiHoc 2008, DSN 2008

COMPUTER SKILLS

Hardware Design: Xilinx Tools, ChipScope, ModelSim, System Generator

High-Level Languages: C++, Pascal, Unix shell scripting, AWK

Assembly Languages: x86/8051

Applications: MATLAB, LATEX, Microsoft Office, iWork, iLife, iPerf

Operating Systems: Mac OS X, Unix/Linux, Windows

GRADUATE STUDY COURSE WORK

Wireless Communications, Random Processes and Applications, Introduction to Communication Networks, Optimization Theory, Advance Topics in Computer Networking, Mobile and Wireless Networking, Applied Stochastic Processes, Wireless Networking for Under Resource Communities, Design and Analysis of Algorithms, Integer and Linear Programming