

Tara Javidi

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University of California, San Diego
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La Jolla, CA 92093-0407

Education

University of Michigan, Ann Arbor, MI

Ph.D., Electrical Engineering and Computer Science: Systems May 2002
Major: Communications; Minor: Control
Dissertation: "Resource Allocation: Issues and Applications in Networks"

Master of Science, Applied Mathematics December 1999
Mathematics of Optimization and Stochastic Processes

Master of Science, Electrical Engineering and Computer Science: Systems May 1998
Major: Communications; Minor: Control

Sharif University of Technology, Tehran, Iran

Baccalaureate of Science, Electrical Engineering June 1996
Major: Electronics

Honors/ Awards

National Science Foundation, Early Career (CAREER) Award April 2004

Barbour Scholarship: Rackham School of Graduate Studies, University of Michigan September 1999

Ranked first in the nation-wide entrance exam for Iranian universities, among 300,000 examinees June 1992

Awards for distinction from

- The Ministry of Education, Tehran, Iran
- Educational Vice-President, Sharif University of Technology, Tehran, Iran
- Iranian Women Association, Tehran, Iran

IEEE Member

Work Experience

Assistant Professor

Electrical and Computer Engineering Department, University of California, San Diego Jan 2005-present
Electrical Engineering Department, University of Washington, Seattle Sept 2002-Dec 2004

Research Focus: Network design and control in wireless communication; Multi-Access Control in OFDM and CDMA; Topology Design for Ad Hoc Wireless Networks

Teaching: Stochastic Processes and Markov Chains (EE508); Computer and Communications Networks (EE566, ECE257A); Discrete Signals and Systems (EE341, ECE161A);

Research Intern, Network Group

Summer 2000

Tellabs Research Center, Tellabs Inc., Mishawaka, IN 46545

Trimble Navigation, Sunnyvale, CA 94086

Publication**Journal Publications**

1. T. Javidi, N. Song, and D. Teneketzis. Expected Makespan Minimization in Two Interconnected Queues on Identical Parallel Machines. *Journal of Probability in Engineering and Information Science*, vol. 15, pp 409-443, 2001
2. T. Javidi and D. Teneketzis. An Approach to Connection Admission Control in Single-hop Multi-service Wireless Networks with QoS Requirements. *IEEE Transactions on Vehicular Technology*, July 2003
3. T. Javidi and D. Teneketzis. Sensitivity Analysis for Optimal Routing in Wireless Ad Hoc Networks in Presence of Error in Channel Quality Estimation. *IEEE Transactions on Automatic Control*, August 2004
4. J. Price and T. Javidi. Decentralized Rate Assignments in a Multi-Sector CDMA Network, Submitted to *IEEE Transactions on Wireless Communications*
5. D. Pak, J. Keppo, and T. Javidi. Mobile Assisted Hand-off: A Game Theoretic Approach. In preparation for submission to *Journal of Operations Research*
6. S. Kittipiyakul and T. Javidi, "Optimal Subcarrier Allocation in OFDMA," Preprint

Refereed Conference Publications

- 1 S. Kittipiyakul and T. Javidi, "Subcarrier allocation in OFDMA systems: beyond water-filling," *Asilomar Conference on Signals, Systems, and Computers*, November 2004
- 2 S. Kittipiyakul and T. Javidi, "A Fresh Look at Optimal Subcarrier Allocation in OFDMA Systems," *IEEE Conference on Decision and Control (CDC 2004)*, Dec 2004
- 3 J. Price and T. Javidi, "Cross-Layer (MAC and Transport) Optimal Rate Assignment in CDMA-Based Wireless Broadband Networks," *Asilomar Conference on Signals, Systems, and Computers*, November 2004
- 4 T. Javidi, "Rate Stable Resource Allocation in OFDM Systems: From Waterfilling to Queue-Balancing," *Allerton Conference on Communication, Control, and Computing*, September 2004
- 5 J. Price and T. Javidi, "Joint Scheduling for Self-Configuring Ad-Hoc CDMA Networks," *Allerton Conference on Communication, Control, and Computing*, September 2004
- 6 J. Price and T. Javidi, "Decentralized and Fair Rate Control in a Multi-Sector CDMA System," *IEEE Wireless Communications and Networking Conference*, March 2004.
- 7 T. Javidi. Decentralized Rate Assignment in a Multi-Sector CDMA Network. *Proceedings of IEEE Globecom Conference, November 2004*
- 8 T. Javidi and D. Teneketzis. Outage-Based Admission Region in a Cellular Network. In *Proceedings-IEEE Wireless Communications and Networking Conference*, vol. 1, pp. 124-129, March 2002
- 9 T. Javidi and D. Teneketzis. Sensitivity Analysis for an optimal Routing Policy in an Ad Hoc Wireless Network. In *Proceedings-Vehicular Technology Conference*, May 2002
- 10 T. Javidi and D. Teneketzis. Resource Allocation in Multi-Service Cellular Networks with Outage-based QoS Requirements. In *Proceedings-39th Allerton Conference on Communication, Control, and Computing*. Oct. 2001
- 11 T. Javidi and D. Teneketzis. Ad Hoc Network Routing: Channel Quality Estimation and Robustness. In *Proceedings-40th Allerton Conference on Communication, Control, and Computing*. October 2002
- 12 T. Javidi, R Magill, and T. Hrabik. A High Throughput Scheduling Algorithm for a Buffered Crossbar Switch Fabric. In *Proceedings-IEEE International Conference on Communications*, vol. 5, pp. 1586-1591

Technical Reports

1. T. Javidi. Decentralized Rate Assignment in Multi-Sector CDMA Networks, UWEETR-2003-0008, EE Department, University of Washington, Seattle. May 2003
2. T. Javidi and D. Teneketzis. Sensitivity Analysis for Optimal Routing in Ad Hoc Wireless Networks. Control Group Report CGR-02-01, EECS Department, University of Michigan. Jan 2002
3. T. Javidi and D. Teneketzis. An Approach to Connection Admission Control in Single-hop Multi-service Wireless Networks with QoS Requirements and Outage-Based Performance Measure. Control Group Report CGR-01-08, EECS Department, University of Michigan. Aug 2001
4. T. Javidi and D. Teneketzis. Outage, QoS, and Admission Region in a Single Cell. Control Group Report CGR-01-07, EECS Department, University of Michigan. March 2001
5. T. Javidi, R Magill, and T. Hrabik. Methods and Apparatus for Managing Traffic through a Buffered Crossbar Switch Fabric. Internal Technical Report to the Communications Group at TRC, Tellabs Inc. Aug 2000
6. T. Javidi and D. Teneketzis. Expected Makespan Minimization in Two Interconnected Queues on Identical Parallel Machines. Control Group Report CGR-00-13, EECS Department, University of Michigan. Dec 2000
7. T. Javidi. A Study and Analysis of Various Modulation Schemes: GMSK, 4QAM, and 8QAM. Internal Report for Radio Group at Trimble Navigation. June 1997
8. T. Javidi. A Survey of the Various RF Boxes in Market, their Properties, advantages, and limitations. Internal Report for Radio Group at Trimble Navigation. Aug 1997