Azadeh Vosoughi

University of Central Florida Department of Electrical Engineering and Computer Science 432 Harris Corporation Engineering Center Orlando, FL 32816

EDUCATION

■ **Ph.D.**, Electrical and Computer Engineering May 2006 Cornell University, Ithaca, NY Thesis Title: Tracking and equalizing channels in communication systems and in data compression PhD Advisor: Prof. Anna Scaglione

■ M.S., Electrical and Computer Engineering Worcester Polytechnic Institute, Worcester, MA Thesis Title: Compensation for recruitment-of-loudness effects of noise reduction algorithms for hearingimpaired listeners

B.S., Electrical Engineering Sharif University of Technology, Tehran, Iran Senior Thesis Title: Design of a distribution surge arrester for electrical power distribution networks

HONORS AND AWARDS

- National Science Foundation (NSF) CAREER award 2011.
- Appointed as Wilmot Assistant Professor at the University of Rochester. The appointment carried with it a \$10,000 research fund.

• Recipient of Furth Award for Junior Faculty at the University of Rochester, October 2006. The award consisted of a \$10,000 research fund.

RESEARCH GRANTS

DoE, "The FEEDER (Foundations for Engineering Education for Distributed Energy Resources) Consortium", Co-PI, October 2013-October 2018, Total amount of the project \$3,200,000 (PI: Zhihua Qu, Co-PIs: Saeed Lotfifard, Alireza Seyedi, Marwan Simaan).

• NSF Single PI, "Power-Constrained Distributed Vector Estimation in Wireless Sensor Networks", August 2013- August 2016, Amount \$373,306.

• NSF REU Supplement for "Cooperative Sensing and Communications for Cognitive Radio Networks", awarded on May 2013, Amount \$16,000.

• NSF CAREER award, "*M*-ary Distributed Detection in Wireless Sensor Networks", February 2011-February 2016, Amount \$429,804.

• NSF Collaborative Research, "Cooperative Sensing and Communications for Cognitive Radio Networks", PI, September 2009-September 2014, Amount for PI \$255,361 (Co-PI: Nazanin Rahnavard, Total amount of the project \$447,360).

WORK EXPERIENCE

■ Associate Professor, University of Central Florida, Orlando, FL	August 2012-present
Electrical Engineering and Computer Science Department	
■ Assistant Professor, University of Rochester, Rochester, NY	July 2006-August 2012
Electrical and Computer Engineering Department	

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February 1997

August 2001

Current Research Interests

- Communication theory and wireless communications
- Optimization and fundamental limits of cooperative wireless communications
- Detection and estimation theory
- Distributed sensing and information processing
- Reliable distributed detection and data fusion system design
- Advanced brain signal processing

TEACHING EXPERIENCE

• Courses Taught at University of Central Florida

• EEL3004: Electrical Networks	Fall 2013
• EEE6504: Adaptive Digital Signal Processing	Spring 2013, 2014
• EEL6590: Advanced Topics on Communications (developed by AV)	Fall 2012

• Courses Taught at University of Rochester

- ECE441: Detection and Estimation Theory (introduced and developed by AV) Spring 2012
- ECE270: Introduction to Probability (introduced and developed by AV) Fall 2008, 2009, 2010, 2011
- ECE443: Mobile Communications (introduced and developed by AV) Spring 2007, 2008, 2009, 2010
- ECE492: Special Topics: Convex Optimization Spring 2009
- ECE440: Introduction to Random Processes Fall 2006

STUDENTS AND ALUMNI

• Current Graduate Students

- Nahal Maleki joined my research group at UR as a PhD student in Fall 2009. She is expected to graduate by May 2014.
- Mojtaba Shirazi joined my research group at UCF as a PhD student in Fall 2013.
- Alireza Sani joined my research group at UCF as a PhD student in Fall 2013.
- Zahra Hajibabaei joined my research group at UCF as a PhD student in Spring 2014.
- Urslia Khan joined my research group at UCF as a PhD student in Spring 2014.
- Alan Paris (3th year PhD student at UCF-Modeling and Simulations program). Currently, Prof. George Atia and myself are co-advising Alan's doctoral research.

Previously Supervised Graduate Students

- Hamidreza Ahmadi joined my research group at UR as a PhD student in January 2008 and completed his PhD degree in April 2013. Currently, he works for Availink in Germantown, Maryland.
- Yupeng Jia joined my research group at UR as a PhD student in Fall 2007 and completed his PhD degree in March 2012. Currently, he works for National Instrument in Austin.
- Liangnan Wu joined my research group at UR as a MS student in March 2007 and completed his MS degree in December 2007 (project). Currently, he works for Amazon in San Francisco.
- Stephen Mwanje joined my research group at UR as a MS student in January 2007 and completed his MS degree in May 2008 (thesis). Currently, he is a PhD student at Ilmenau University of Technology in Germany.
- Nelesh Singla joined my research group at UR as a MS student in January 2009 and completed his MS degree in May 2010 (project). Currently, he works for Pearson Education in Boston.
- Poornima Nookala joined my research group at UR as a MS student in January 2007 and completed his MS degree in December 2007 (project). Currently, she works for Western Digital in Los Angeles.
- Abhimanyu Sharma joined my research group at UR as a MS student in January 2007 and completed his MS degree in December 2007 (project). Currently, he works for Western Digital in Los Angeles.

- Previously Supervised Undergraduate Students
 - Nan Xu worked in my research group at UR (REU program) during summers 2009 and 2010. Her project won the Deans' awards (the most prestigious award for research), at the Undergraduate Research Exposition 2010. Currently, she is a PhD student at Cornell University.
 - Siddharth Padhi: I supervised one credit of independent study in Spring 2013, when Siddharth was a senior ECE student at UCF. Currently, he is a MS student at UCF.
 - Zachary Noyes: I supervised one credit of independent study in Spring 2009, when Zachary was a junior ECE student at UR. Currently, he works for Videk in Rochester, NY.

PUBLICATIONS

Book Chapter

[B1] A. Scaglione, A. Salhotra, and A. Vosoughi, "Linear precoding for MIMO systems," Chapter 14 in Signal processing for Mobile Communication Handbook, Mohamed Ibnkahla (editor), CRC Press, 2004.

Theses

- [T1] H. Ahmadi, "Optimization of distributed detection systems in the presence of wireless channel uncertainty", University of Rochester, Ph.D. Dissertation, April 2013 (advisor: A. Vosoughi).
- [T2] Y. Jia, "Channel estimation and optimal resource allocation of relay assisted communication systems", University of Rochester, Ph.D. Dissertation, March 2012 (advisor: A. Vosoughi).
- [T3] S. Mwanje, "On Implementation of distributed source coding in acoustic sensor networks," University of Rochester, M.S. Dissertation, May 2008 (Advisor: A. Vosoughi).
- [T4] A. Vosoughi, "Tracking and equalizing channels in communication systems and in data compression", Cornell University, Ph.D. Dissertation, May 2006.
- [T5] A. Vosoughi, "Compensation for recruitment-of-loudness effects of noise reduction", Worcester Polytechnic Institute, M.S. Dissertation, August 2001.
- [T6] A. Vosoughi, "Design of a distribution surge arrester for electrical power distribution networks", Sharif University of Technology, B.S. Dissertation, February 1997.

Journal Articles

- [J1] M. Kazemi and A. Vosoughi, "The capacity of a class of cognitive interference channel with noncausal CSI," submitted to *IEEE Transactions on Wireless Communications*, January 2014.
- [J2] J. Mao, A. Vosoughi and L. H. Carney, "Predictions of diotic tone-in-noise detection based on a nonlinear optimal combination of energy, envelope, and fine-structure cues," *Journal of the Acoustical Society of America*, vol. 134, no. 1, pp 396-406, July 2013.
- [J3] H. Ahmadi and A. Vosoughi, "Impact of wireless channel uncertainty upon distributed detection systems," *IEEE Transactions on Wireless Communications*, vol. 12, no. 6, pp 2566-2577, June 2013.
- [J4] T. Wang, A. Seyedi, A. Vosoughi and W. Heinzelman, "Optimal rate allocation for distributed source coding over Gaussian multiple access channels," *IEEE Transactions on Wireless Communications*, vol. 12, no. 5, pp 2002-2013, May 2013.
- [J5] H. Ahmadi and A. Vosoughi, "Optimal training and data power allocation in distributed detection with inhomogeneous sensors," *IEEE Signal Processing Letters*, vol. 20, no. 4, pp 339-342, April 2013.
- [J6] Y. Jia and A. Vosoughi, "Outage probability and power allocation of two-way amplify-and-forward relaying with channel estimation errors," *IEEE Transactions on Wireless Communications*, vol. 11, no. 6, pp 1985-1990, June 2012.
- [J7] A. Vosoughi and Y. Jia, "How does channel estimation affect average sum-rate in two-way amplifyand-forward relay networks?" *IEEE Transactions on Wireless Communications*, vol. 11, no. 5, pp 1676-1687, May 2012.

- [J8] T. Wang, A. Vosoughi, W. Heinzelman and A. Seyedi, "Maximizing gathered samples in wireless sensor networks with Slepian-Wolf coding," *IEEE Transactions on Wireless Communications*, vol. 11, no. 2, pp 751-761, February 2012.
- [J9] H. Ahmadi and A. Vosoughi, "Distributed detection with adaptive topology and nonideal communication channels," *IEEE Transactions on Signal Processing*, vol. 59, no. 6, pp 2857-2874, June 2011.
- [J10] Y. Jia and A. Vosoughi, "Transmission resource allocation for training based amplify-and-forward relay systems," *IEEE Transactions on Wireless Communications*, vol. 10, no. 2, pp 450-455, February 2011.
- [J11] A. Vosoughi and A. Scaglione, "Precoding and decoding paradigms for distributed data compression in sensor networks," *IEEE Transactions on Signal Processing*, vol. 55, no. 4, pp 1445-1460, April 2007.
- [J12] A. Vosoughi and A. Scaglione, "Everything you always wanted to know about training: guidelines derived using the affine precoding framework and the CRB," *IEEE Transactions on Signal Processing*, vol. 54, no. 3, pp 940-954, March 2006.
- [J13] A. Vosoughi and A. Scaglione, "On the effect of receiver estimation error upon channel mutual information," *IEEE Transactions on Signal Processing*, vol. 54, no. 2, pp 459-472, February 2006.
- [J14] N. Whitmal and A. Vosoughi, "Recruitment-of-loudness effects of attenuative noise reduction algorithms," *Journal of the Acoustical Society of America*, vol. 111, no. 5, pp. 2380-2380, 2002.

Peer-Reviewed Conference Proceedings

- [C1] M. Kazemi and A. Vosoughi, "On the capacity region of the partially cooperative relay cognitive interference channel," in Proc. IEEE International Symposium on Information Theory (ISIT), July 2013.
- [C2] M. Kazemi and A. Vosoughi, "On the capacity of the state-dependent cognitive interference channel," in Proc. IEEE International Symposium on Information Theory (ISIT), July 2013.
- [C3] M. Kazemi and A. Vosoughi, "Capacity region and optimum power allocation strategies for fading cognitive relay multiple access channels," in Proc. 50th Allerton Conference on Communication, Control, and Computing, September 2012 (invited paper).
- [C4] Y. Jia and A. Vosoughi, "Cramer-Rao bound for channel estimation in amplify-and-forward relaying networks," in Proc. MILCOM, October 2012.
- [C5] N. Maleki and A. Vosoughi, "Channel-aware M-ary distributed detection: optimal and suboptimal fusion rules," in Proc. IEEE Statistical Signal Processing (SSP) workshop, August 2012.
- [C6] H. Ahmadi and A. Vosoughi, "Correlated observations in distributed detection systems," in Proc. IEEE Statistical Signal Processing (SSP) workshop, August 2012.
- [C7] T. Wang, W. Heinzelman, A. Seyedi and A. Vosoughi, "Maximizing sample rate for distributed source coding over multiple access channels," in Proc. *IEEE International Conference on Communications (ICC)*, June 2011.
- [C8] Y. Jia and A. Vosoughi, "Sum-rate maximization of two-way amplify-and-forward relay networks with imperfect channel state information," in Proc. *IEEE International Conference on Acoustics*, Speech, and Signal Processing (ICASSP), May 2011.
- [C9] J. Mao, A. Vosoughi and L. H. Carney, "Stimulus-based diotic and dichotic models that combine cues for detection of tones in reproducible noise," 161th Meeting of the Acoustical Society of America, May 2011.
- [C10] Y. Jia and A. Vosoughi, "Impact of channel estimation error upon sum-rate in amplify-and-forward two-way relaying systems," in Proc. IEEE workshop on Signal Processing Advances in Wireless Communications (SPAWC), June 2010.

- [C11] A. Vosoughi and Y. Jia, "Maximizing throughput in cooperative networks via cross-layer adaptive designs," in Proc. 33rd IEEE Sarnoff Symposium, June 2010.
- [C12] Y. Jia and A. Vosoughi, "Two-way relaying for energy constrained systems: joint transmit power optimization," in Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), March 2010.
- [C13] T. Wang, W. Heinzelman, A. Seyedi and A. Vosoughi, "Maximizing the lifetime of clusters with Slepian-Wolf coding," in Proc. *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, March 2010.
- [C14] A. Vosoughi, M. B. Shamsollahi and A. Vosoughi, "Nonsubsampled higher-density discrete wavelet transform: filter design and application in image enhancement," in Proc. *IEEE International Conference on Image Processing (ICIP)*, November 2009.
- [C15] Y. Jia and A. Vosoughi, "A novel selective relaying protocol for wireless networks," in Proc. IEEE workshop on Signal Processing Advances in Wireless Communications (SPAWC), June 2009.
- [C16] H. Ahmadi and A. Vosoughi, "Channel aware sensor selection in distributed detection systems," in Proc. IEEE workshop on Signal Processing Advances in Wireless Communications (SPAWC), June 2009.
- [C17] A. Vosoughi and H. Ahmadi, "Space-time coding for distributed detection in wireless sensor networks," in Proc. IEEE workshop on Signal Processing Advances in Wireless Communications (SPAWC), June 2009.
- [C18] A. Vosoughi, A. Vosoughi and M. B. Shamsollahi, "Nonsubsampled higher-density discrete wavelet transform for image denoising," in Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), April 2009.
- [C19] A. Vosoughi, "Signal source estimation in sensor networks," in Proc. IEEE International Symposium on Information Theory and its Applications (ISITA), December 2008.
- [C20] H. Ahmadi and A. Vosoughi, "Impact of channel estimation error on decentralized detection in bandwidth constrained wireless sensor networks," in Proc. MILCOM, November 2008.
- [C21] A. Vosoughi and G. Ren, "Scalar quantizers for decentralized estimation of multiple random sources," in Proc. MILCOM, November 2008.
- [C22] Y. Jia and A. Vosoughi, "Training design for information rate optimization over amplify-andforward relay channels," in Proc. IEEE Asilomar Conference on Signals, Systems, and Computers, October 2008.
- [C23] H. Ahmadi and A. Vosoughi, "On the effect of channel estimation error upon the performance of distributed detection systems," in Proc. IEEE Asilomar Conference on Signals, Systems, and Computers, October 2008.
- [C24] G. Ren and A. Vosoughi, "Distributed source coding for multi-source estimation in sensor networks," in Proc. IEEE workshop on Signal Processing Advances in Wireless Communications (SPAWC), July 2008.
- [C25] L. Wu and A. Vosoughi, "Biorthogonal pulse shape modulation for IR-UWB systems over fading channels," in Proc. *IEEE workshop on Signal Processing Advances in Wireless Communications* (SPAWC), July 2008.
- [C26] L. Wu and A. Vosoughi, "Error performance of pulse shape modulation for IR-UWB communication with MRC and EGC RAKE receivers," in Proc. IEEE Wireless Communications and Networking Conference (WCNC), March 2008.
- [C27] L. Wu and A. Vosoughi, "Pulse shape modulation for IR-UWB communication: performance with channel estimation error," in Proc. IEEE International Symposium on Communications, Control, and Signal Processing (ISCCSP), March 2008.

- [C28] A. Vosoughi and A. Scaglione, "Sequential source coding with side information for sensor networks," in Proc. IEEE workshop on Signal Processing Advances in Wireless Communications (SPAWC), June 2007.
- [C29] A. Vosoughi and A. Scaglione, "A Wyner Ziv codec for correlated vector sources," in Proc. IEEE workshop on Signal Processing Advances in Wireless Communications (SPAWC), June 2006.
- [C30] A. Vosoughi and A. Scaglione, "Linear precoding and decoding for distributed data compression," in Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), May 2006.
- [C31] M. Gaubatz, A. Vosoughi, A. Scaglione and S. S. Hemami, "Efficient low complexity encoding of multiple, blurred noisy downsampled images via distributed source coding principles," in Proc. *IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, May 2006.
- [C32] A. Vosoughi and A. Scaglione, "A Wyner Ziv codec based on equalization at the decoder," in Proc. 43rd Allerton Conference on Communication, Control, and Computing, September 2005.
- [C33] A. Vosoughi and A. Scaglione, "Optimal training designs for Bayesian channel estimators with application in CDMA systems," in Proc. *IEEE Statistical Signal Processing (SSP) workshop*, July 2005.
- [C34] A. Vosoughi and A. Scaglione, "On the effect of channel estimation error with superimposed training upon information rates," in Proc. IEEE International Symposium on Information Theory (ISIT), June 2004.
- [C35] A. Scaglione and A. Vosoughi, "Turbo estimation of channel and symbols in precoded MIMO systems," in Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), May 2004.
- [C36] A. Vosoughi and A. Scaglione, "The best training depends on the receiver architecture," in Proc. IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), May 2004.
- [C37] A. Vosoughi and A. Scaglione, "Channel estimation for precoded MIMO systems," in Proc. IEEE Statistical Signal Processing (SSP) workshop, September 2003.
- [C38] T. Harpster, S. Hauvespre, M. Dokmeci, A. Vosoughi and K. Najafi, "A passive humidity monitoring system for in-situ remote wireless testing of micro-packages," in Proc. 13th Annual International Conference on MEMS, January 2000.

INVITED TALKS AND ECE SEMINARS

- [I1] "Distributed intrusion detection: statistical inference meets security", Worcester Polytechnic Institute (WPI), March 2012.
- [I2] "From advanced wireless communications to human auditory modeling: detection and estimation theory to the rescue", University of Massachusetts (UMASS) Lowell, March 2012.
- [I3] "Channel estimation in relay-assisted communication and distributed detection systems", Polytechnic Institute of New York University (NYU-POLY), November 2011.
- [I4] "Channel estimation in relay-assisted communication and distributed detection systems", University of Illinois at Urbana-Champaign (UIUC), October 2011.
- [I5] "Channel estimation in relay-assisted communication and distributed detection systems", University of Illinois at Chicago (UIC), October 2011.
- [I6] "Channel estimation in relay-assisted communication and distributed detection systems", Rice University, September 2011.
- [I7] "Channel estimation in relay-assisted communication and distributed detection systems", Cornell University, September 2011.
- [I8] "Channel estimation in relay-assisted communication and distributed detection systems", University of California at San Diego (UCSD), July 2011.

- [I9] "Channel estimation in relay-assisted communication and distributed detection systems", University of California at Irvine (UC Irvine), July 2011.
- [I10] "Channel estimation in relay-assisted communication and distributed detection systems", University of California at Los Angeles (UCLA), July 2011.
- [I11] "Channel estimation in relay-assisted communication and distributed detection systems", University of Southern California (USC), July 2011.
- [I12] "On channel-dependent distributed detection in wireless networks", Information Theory and Applications (ITA) Workshop, UCSD, February 2011.
- [I13] "Exploiting spatial correlation in wireless sensor networks", Army Research Laboratory (ARL), August 2010.
- [I14] "Optimal power allocation for training based amplify-and-forward relay systems", ITA Workshop, UCSD, February 2010.
- [I15] "Distributed detection systems in wireless networks", ITA Workshop, UCSD, February 2009.
- [I16] "Estimating channels in communication and distributed detection systems", Syracuse University, November 2008.
- [I17] "Tracking and equalizing channels in communication systems and in data compression", Joint Communications and Aerospace IEEE Chapter, Rochester, NY, July 2007.
- [I18] "Coding with side information in sensor networks", IEEE Upstate NY Workshop on Communications and Networking, NY, September 2006.
- [I19] "Tracking and equalizing channels in communication systems and in data compression", University of Oklahoma, March 2006.
- [I20] "Tracking and equalizing channels in communication systems and in data compression", SUNY New Paltz, March 2006.
- [I21] "Tracking and equalizing channels in communication systems and in data compression", University of Rochester, February 2006.

PROFESSIONAL SERVICE AND MEMBERSHIPS

- Panelist for NSF: 2012, 2011, 2010, 2009.
- Associate Editor for the IEEE Wireless Communications Transactions (April 2012 present).
- Associate Editor for the IEEE Signal Processing Letters (January 2012 present).

■ Associate Editor for the IEEE Signal Processing Magazine - book review column (January 2012 - present).

- Technical Track Vice Chair of DCOSS 2014 ("Signal Processing and Information Theory" track).
- Technical Track Co-Chair of PIMRC 2014 ("Fundamentals of PHY Layer Design" track).
- TPC Member of ICC: 2014, 2013, 2012, 2011, 2009.
- TPC Member of SPAWC: 2012, 2011, 2010, 2009.
- TPC Member of GLOBECOM: 2013, 2012, 2011, 2010, 2009.
- TPC Member of DCOSS: 2013, 2012, 2011, 2010.
- TPC Member of PIMRC: 2011, 2010.
- TPC Member of VTC: Fall 2010, Spring 2010, Spring 2009.
- TPC Member of WCSP: 2012.
- TPC Member of WCNC: 2014, 2013.
- Session Chair of: ITA 2010, ITA 2009, WCNC 2008, ITA 2007.
- Member of Steering Committee: Rochester Chapter, IEEE Communications Society 2009, 2008.
- Member of Steering Committee: Rochester Chapter, IEEE Signal Processing Society 2007.
- TPC Member of the 6th IEEE Upstate New York Workshop on Communications and Networking 2007.

■ Participated in organizing the 6th IEEE International Workshop on Signal Processing Advances for Wireless Communication (SPAWC) 2005.

■ Reviewer for:

IEEE Transactions on Signal Processing

IEEE Transactions on Wireless Communications

IEEE Transactions on Information Theory

IEEE Transactions on Communications

IEEE Journal on Selected Areas in Communications

IEEE Transactions on Vehicular Technology

IEEE/ACM Transactions on Networking

IEEE Transactions on Mobile Computing

EURASIP Journal on Wireless Communications and Networking

IEEE Transactions on Parallel and Distributed Systems

ACM Transactions on Sensor Networks

IEEE Transactions on Image Processing

IEEE Conferences: ICC'14, WCNC'14, MWSCAS'13, Globecom'13, ICC'13, ICASSP'13, WCNC'13, DCOSS'13, Globecom'12, ICC'12, ISIT'12, SPAWC'12, DCOSS'12, WCSP'12, ICC'11, ISIT'11, SPAWC'11, Globecom'11, PIMRC'11, DCOSS'11, ICASSP'11, ICCCT'11, ICNC'11, ICC'10, SPAWC'10, Globecom'10, VTC'10, PIMRC'10, DCOSS'10, ICC'09, ISIT' 09, SPAWC' 09, Globecom'09, VTC'09, ICASSP'07, VTC'07, Globecom'07, ICASSP'06, VTC'06, SPAWC'06, ICASSP'05, Globecom'05, SPAWC'05, VTC'05, ICASSP'04, ISIT'04, Globecom'04, SPAWC'04, ICC'03.

- Member, IEEE
- Member, IEEE Society of Women Engineers
- Member, IEEE Signal Processing society
- Member, IEEE Communication society
- Member, IEEE Information Theory society
- Member, Biltmore Who's Who

SERVICE WITHIN UCF

- ECE representative at Hitt library (September 2012 July 2013).
- Member of the ECE Faculty Search Committee 2012-2013.
- Member of the CECS Provost Professor Search Committee 2013-2014.

• Participated at information session for freshmen students and their parents (February 2013). As an ECE representative I gave a presentation on "Modern wireless communications".

• Member of examination committees: 1 MS thesis defense.

SERVICE WITHIN UNIVERSITY OF ROCHESTER

- Member of committees: 4 MS thesis defenses, 9 PhD thesis defenses, 13 PhD thesis proposals.
- Member of the ECE Graduate Committee (August 2006 June 2012). The main responsibility of this committee is to design, hold, and grade "Comprehensive Exam" for first year PhD students.
- Chair of the Communications concentration area in ECE (November 2008 June 2012).
- Participated in the Graduate Engineering at Rochester (GEAR) Program 2011.
- Advisor of undergraduate ECE students (Class of 2011).
- Member of the ECE ABET Committee (January 2011 June 2012).
- Member of the ECE Seminar series committee (June 2011 June 2012).
- Advisor of MS ECE students with "Communications" concentration area in ECE (Class of 2013).