

CURRICULUM VITAE

Zygmunt J. Haas

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I. GENERAL INFORMATION

(i) Personal Information

Name: Zygmunt J. Haas

Titles: Professor Emeritus (Cornell University);

Professor and Distinguish Chair in Computer Science (Univ. of Texas in Dallas)

Professional Contact Information:

*** Cornell University:**

Address: School of Elect. & Comp. Eng, 324 Frank Rhodes Hall, Ithaca, NY 14853

Phone: (607)-255-3454

E-mail: haas@ece.cornell.edu

URL: <http://people.ece.cornell.edu/~haas>

Lab URL: <http://wnl.ece.cornell.edu>

*** University of Texas at Dallas**

Address: Erik Jonsson School of Engineering and Computer Science

ECSS Room 4.405

Richardson, TX 75080

Phone: (972)-883-3571

E-mail: haas@utdallas.edu

URL: <http://www.utdallas.edu/~haas>

Private Contact Information:

Phone: (607) 592-0467

Fax: (888) 990-1956

E-mail: haas@acm.org

(ii) Research Interests

*** Wireless and Mobile Systems and Networks**

*** Secure protocols**

*** Communications Protocols**

*** Ad Hoc and Sensor Networking Technologies**

*** Energy-efficient Protocols**

*** Cyber-Physical Systems (CPS)**

*** Modeling of Communication Systems**

*** Complex Networks**

*** Stochastic Routing**

*** Biologically-inspired Systems**

*** Biologically-inspired Network Protocols and Algorithms**

*** Modeling of Biological Phenomena**

*** Communication Systems for in-vivo Applications**

*** Information Assurance and Network Security**

*** Design, Modeling, and Implementation of Cross-layer Protocols and Systems**

*** Cross-Disciplinary Research Initiatives**

(iii) Education/Degrees (in reverse chronological order)

- * **Ph.D.**, Electrical Engineering, Stanford University, CA, May 1988
Advisor: Prof. David Cheriton, Computer Science, Stanford University
Thesis: “Packet Switching in Fiber-Optic Networks”
- * **M.Sc.**, (*Summa Cum Laude*) Electrical Engineering, Tel-Aviv University, Israel, Feb. 1985
- * **B.Sc.**, (*Summa Cum Laude*) Electrical Engineering, Technion (IIT), Israel, August 1979

(iv) Employment History (in reverse chronological order)

- 8/13 – present:** University of Texas at Dallas, Computer Science Department
Erik Jonsson School of Engineering and Computer Science
Richards, TX, 75080
Title: Professor and Distinguish Chair in Computer Science
- 8/95 – present:** Cornell University, School of Electrical and Computer Engineering, Ithaca, NY.,
Title: Professor Emeritus (as of 10/13)
7/2004 – 10/2013: Tenured Full Professor
11/1998 - 6/2004: Tenured Associate Professor
8/1995 - 10/1998: Associate Professor
- 5/10 – 6/11:** National Science Foundation, Engineering Directorate, Arlington, VA; **Title:** Program Director; **Comment:** on leave from Cornell University
- 09/94 - 7/95:** AT&T Business Communication Services, Murry Hill, NJ; **Title:** Member of Technical Staff
- 05/88 - 7/95:** AT&T Bell Laboratories, Network Research, Holmdel, NJ; **Title:** Member of Technical Staff
- 09/85 - 5/88:** Electrical Eng. Dept., Stanford University, CA, **Title:** Research Assistant
- 10/79 - 8/85:** R&D Department of Government of Israel, Tel-Aviv, Israel; **Title:** Engineer
- 10/81 - 6/85:** Electrical Eng. Dept., Tel-Aviv University, Israel; **Title:** Teaching Assistant
- 8/79 - 10/79:** Philips Research Laboratories, Eindhoven, Holland; **Title:** Engineer

(v) Selected Awards and Honors

- * Status of “Professor Emeritus” at Cornell University (as of October 15, 2013)
- * **2012 IEEE ComSoc WTC Recognition Award** (the award recognizes individuals for “*outstanding technical contributions in the field and for his service to the scientific and engineering communities*”) presented at **IEEE Globecom 2012, December 5, 2012, Anaheim, CA (WTC Recognition Awards)**
- * “Best Paper Award” for the paper “**Collaborating with Correlation for Energy Efficient WSN,**” [M. Nikolov and Z.J. Haas], **First ACM Annual International Workshop on Mission-oriented Wireless Sensor Networking (ACM MiSeNet 2012),** in conjunction with **ACM MobiCom 2012, Istanbul, Turkey, August 26, 2012**

- * IEEE Distinguished Lecturer Tour, Scandinavian Countries, May 25, 2009 – June 5, 2009
- * Elevation to *IEEE Fellow*, January 2007
- * Promotion to the rank of *Full Professor*, School of ECE, Cornell University, July 1, 2004
- * Distinguish Lecturer, IEEE Communications Society, (two terms) 01/2004 - 12/2005, 01/2005 - 12/2007
- * IEEE Distinguished Lecturer Tour, Australia, September 26-October 3, 2005
- * Expert Lecturer, IEEE Communications Society, 2002-2004
- * Michael Tien'72 Excellence in Teaching Award, Cornell College of Engineering for 2002-2003 academic year, November 2003
- * “Best Paper Award” for the paper “Optimal Resource Allocation for UWB Wireless Ad Hoc Networks,” [C. Zou and Z.J. Haas], IEEE 16th International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC'05)
- * Michael Tien'72 Excellence in Teaching Award, Cornell College of Engineering for 2002-2003 academic year, November 2003
- * “Highly Commended Paper Award” for the paper “Performance Evaluation of the Modified IEEE 802.11 MAC for Multi-Channel Multi-Hop Ad Hoc Network,” [J. Li, Z.J. Haas, M. Sheng, and Y. Chen], IEEE International Conference on Advanced Information Networking and Applications (AINA 2003)
- * Elected Chair of the IEEE Technical Committee on Personal Communications (TCPC), Jan. 2001 – Nov. 2002 (previously elected Vice Chair and Secretary)
- * Michael Tien'72 Excellence in Teaching Award, Cornell College of Engineering for 1999-2000 academic year, September 2000
- * Numerous *Marquis Who's Who* citations
- * Election to *Indefinite Tenure*, Cornell University, October 1998
- * Michael Tien'72 Excellence in Teaching Award, Cornell College of Engineering for 1996-1997 academic year, September 1997
- * AT&T Foundation Award, September 1995
- * President Award, Technion, Israel (1976, 1977, 1978, and 1979)
- * B.Sc. with “*Summa Cum Laude*,” August 1979
- * M.Sc. with “*Summa Cum Laude*,” February 1985

(vi) Memberships in Professional Societies

- * IEEE Communications Society (ComSoc)
- * IEEE Vehicular Technology
- * Association for Computing Machinery (ACM)
- * Special Interest Group on Mobile Communications (SIGMOBILE)

(vii) Membership in Graduate Fields (date awarded)

- * Electrical and Computer Engineering, Cornell University, July 1, 1995
- * Computer Science, Cornell University, February 2001
- * Applied Math, Cornell University, April 2003
- * Electrical Engineering, University of Texas at Dallas, April 4, 2015

II. TALKS, INVITED TALKS, & KEYNOTE SPEECHES

Invited and Keynote Talks (in reverse chronological order)

- * [Z.J. Haas “Challenges of Internet of Things,” Fourth Annual International Workshop on Mission-Oriented Wireless Sensor Networking \(*MiSeNet 2015*\), Dallas, TX, October 19, 2015](#)
- * [Z.J. Haas “Security of Big Data,” Third Annual International Workshop on Mission-Oriented Wireless Sensor Networking \(*MiSeNet 2014*\), Philadelphia, PA, October 27, 2014](#)
- * [Z.J. Haas “Big Data and Its Security Implications,” National Taiwan University \(NTU\), Taipei, Taiwan, December 16, 2013](#)
- * [Z.J. Haas “Big Data and Its Security Implications,” National Sun Yat-sen University, Kaohsiung, Taiwan, December 18, 2013](#)
- * [Z.J. Haas “Big Data and Its Security Implications,” National Tsing Hua University, Hsinchu, Taiwan, December 19, 2013](#)
- * [Z.J. Haas, “Big Data and Security Implications,” Keynote Speech, *EUSPN’13, 4th International Conference on Emerging Ubiquitous Systems and Pervasive Networks*, Niagara Falls, Ontario, Canada, October 21-24, 2013](#)
- * [Z.J. Haas, “Security of Big Data,” at the Cornell Engineering Alumni Association conference, Washington, DC, May 13, 2013](#)
- * [Z.J. Haas, “Stochastic Routing,” DIMACS Workshop on Connectivity and Resilience for Large-Scale Networks, Rutgers University, Piscataway, NJ, April 12-13, 2012](#)
- * [Z.J. Haas, “Information Assurance for Sensor Networks,” Winter 2012 CIS Distinguished Lecture Series, Computer and Information Science Department, College of Engineering and Computer Science, University of Michigan-Dearborn, March 16, 2012](#)
- * [Z.J. Haas, “Information Assurance for Sensor Networks,” Invited Talk, Department of Electrical Engineering and Computer Science, UC Berkeley, Berkeley, CA, September 7, 2011](#)
- * [Z.J. Haas, “Information Assurance for Vehicular Sensor-based Networks,” Closing Keynote, 4th IEEE International Symposium on Wireless Vehicular Communications \(*WiVeC’11*\), San Francisco, CA, September 6, 2011](#)
- * [Z.J. Haas, “Information Assurance for Sensor Networks,” Invited Talk, Department of Electrical Engineering, National Taiwan University of Science and Technology, Taipei, Taiwan, August 15, 2011 \(program\)](#)
- * [Z.J. Haas, “New Directions and Challenges in Information Assurance with Applications for Sensor Networks,” Invited Talk, Department of Electrical Engineering, NCTU, Hsinchu, Taiwan, August 12, 2011](#)
- * [Z.J. Haas, “New Directions and Challenges in Information Assurance with Application to Sensor Networks,” Invited Talk, Department of Electrical Engineering, Boston University, July 14, 2011](#)
- * [Z.J. Haas, “Information Assurance and Sensor Network Security,” Department of Electrical and Computer Engineering, University of Florida, Gainesville, FL, April 14, 2011](#)

- * Z.J. Haas, “*Information Assurance and Sensor Network Security*,” Computer and Information Sciences department, Temple University, Philadelphia, PA, March 31, 2011
- * Z.J. Haas, “*Information Assurance for Sensor Networks*,” Keynote Speech, *IEEE PerCom 2011 (Information Quality and Quality of Service (IQ2S) Workshop)*, Seattle, WA, March 21, 2011
- * Z.J. Haas, “*Stochastic Routing for Delay Tolerant Networks*,” Invited Talk, *IEEE Communications Society North Jersey Chapter, NJIT Department of ECE, Newark, NJ, November 29, 2010*
- * Z.J. Haas, “*Stochastic Routing for Delay Tolerant Networks*,” Keynote Talk, *Symposium for Emerging Trends in Mobile, Sensor, and Social Networks (MSS 2010), CReWMaN 10th Anniversary Celebration, University of Texas at Arlington, October 7-8, 2010*
- * Z.J. Haas, “*The Ad Hoc and Sensor Networking Technology: Past, Presence, and Future*,” Keynote Speech, *The Second International Conference on Ubiquitous and Future Networks*, Jeju Island, South Korea, June 16-18, 2010
 - * Z.J. Haas, “*Engineering Education for the 21st Century*,” Invited Talk, Kookmin University, Seoul, South Korea, June 21, 2010
- * Z.J. Haas, “*The Future of Engineering Education*,” Plenary Speaker, *Worldwide Communications Studies (WTS 2010)*, April 21-23, 2010, Tampa, FL (*WTS 2010*)
- * Z.J. Haas, “*Stochastic Routing for Delay Tolerant Networks*,” Electrical and Computer Engineering Seminar, Technion, Israel Institute of Technology, July 13, 2009
- * Z.J. Haas, “*Stochastic Routing for Delay Tolerant Networks*,” Nordic IEEE/ComSoc Distinguish Lecturer Tour (DLT), May 24, 2009 – June 5, 2009:
 - KTH Royal Institute of Technology, Stockholm, Sweden
 - Helsinki University of Technology (TKK), Helsinki, Finland
 - Linköpings Universitet, Dept. of Computer & Info. Science, Linköpings, Sweden
 - Lund Technical University and Ericsson, Lund, Sweden
 - Oulu University, Oulu, Finland
 - Aalborg University, Aalborg, Denmark
 - Danmarks Tekniske Universitet (DTU), Copenhagen, Denmark
- * Z.J. Haas, “*Implications of Reconfiguration at the Network Layer*,” US-Australia NSF Workshop: Self-Organizing Wireless Networks Based on Cross-Layer Interactions, Darling Harbour, Sydney, Australia, December 17-19, 2008
- * Z.J. Haas, “*Stochastic Routing*,” US-Australia NSF Workshop: Self-Organizing Wireless Networks Based on Cross-Layer Interactions, Darling Harbour, Sydney, Australia, December 17-19, 2008
- * Z.J. Haas, “*Stochastic Routing for Sensor- and Ad Hoc-Networks*,” Keynote Speech, *International Conference on Intelligent Sensors, Sensor Networks, and Information Processing (ISSNIP 2008)*, December 15-18, 2008, Sydney, Australia
- * Z.J. Haas, “*What’s in My Crystal Bowl*,” Keynote Speech, Australasian Telecommunication Networks and Applications Conference 2008 (ATNAC 2008), Adelaide, South Australia, December 7-10, 2008
- * Z.J. Haas, “*On Networking in the Final Frontier*,” University of South Florida, Tampa, FL, December 5, 2008
- * Z.J. Haas, “*On Networking in the Final Frontier*,” CSE Colloquium, Department of Computer Science and Engineering, University of Buffalo, Buffalo, NY, Nov. 6, 2008

- * Z.J. Haas, "On Networking in the 'Final Frontier'," ECE Seminar Series, Carnegie Mellon University, Pittsburgh, PA, November 20, 2008
- * Z.J. Haas, "Stochastic Routing," *Brown-Bag Series*, Computer Science Department, Cornell University, Ithaca, NY, March 4, 2008
- * Z.J. Haas, "The Untold Story about the Romance between Mr. *A.H Network* and Mrs. *S. Network* and about their Son, Mr. *D.-T Network*," *ECE Colloquium*, Department of Electrical and Computer Engineering, Boston University, February 22, 2008
- * Z.J. Haas, "Research in Wireless Ad Hoc Networks at the Cornell's Wireless Networks Laboratory," Iowa State University, Computer Science Department, July 6, 2007
- * Z.J. Haas, "On Some Choices in QoS Design of Ad Hoc and Sensor Networks," *Bell Laboratories, Lucent Technologies*, Murray Hill, NJ, January 27, 2006
- * Z.J. Haas, "On Some Choices in QoS Design of Ad Hoc and Sensor Networks," Keynote Speech, 2nd IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS 2005), Washington, DC, November 9, 2005
- * Z.J. Haas, "Research in Wireless Ad Hoc Networks at the Cornell's Wireless Networks Laboratory," Keynote Speech, 2005 Asia-Pacific Conference on Communications, Perth, Australia, October 3-5, 2005
- * Z.J. Haas, "Mobility and its Effects on Networks Performance," *MiNEMA Summer School 2005*, Klagenfurt University, Klagenfurt, Austria, July 11-15, 2005
- * Z.J. Haas, "Research in Wireless Ad Hoc Networks at the Cornell's Wireless Networks Laboratory," *IEEE Communications Society and IEEE Aerospace and Electronics Systems*, Joint Chapter, Rochester, NY, *Rochester Institute of Technology*, Rochester, NY, October 19, 2004
- * Z.J. Haas, "Research in Wireless Ad Hoc Networks at the Cornell's Wireless Networks Laboratory," *University of Pennsylvania, Electrical Engineering Department*, Philadelphia, PA, November 8, 2004
- * Z.J. Haas, "Zone Routing: A New Routing Protocol for the Reconfigurable Wireless Networks," *Science Advisory Board Associates (SABA)*, Motorola, Arlington Heights, November 18, 1997
- * Z.J. Haas, "Routing in Highly Reconfigurable Wireless Networks," *8th Maryland Workshop on Very High Speed Networks*, University of Maryland Baltimore County, November 12-13, 1997
- * Z. J. Haas, "The Multiply-Detected Macrodiversity Scheme for Wireless Cellular Systems," *EE Colloquium, School of Electrical Eng.*, Cornell University, April 22, 1997
- * Z. J. Haas, J. H. Winters, and D. S. Johnson, "Simulation Results of Cellular Capacity Bounds," *5th Maryland Workshop on Very High Speed Networks*, Baltimore, MD, March 14-16, 1994
- * Z. J. Haas, J. H. Winters, and D. S. Johnson, "On the Capacity Bounds in Cellular Systems," *Allerton Conf. on Comm., Control, and Comp.*, Monticello, IL, Sept. 29 - Oct. 1, 1993
- * Z. Haas, "Gigabit Connectivity with the 'Staggering Switch': An Electronically Controlled Optical Packet Switch," *4th Maryland Workshop on Very High Speed Network*, March 15-17, 1993
- * Zygmunt Haas, "Communication in the Gbps Era: Some Answers," *Washington University at St. Louis*, St. Louis, MO, September 1990

Tutorial Courses:

- * Z.J. Haas, "The Ad Hoc Networking Technology," *Thales Communications, Land and Joint Systems Division*, Clarksburg, MD, May 21-24, 2006
- * Z.J. Haas, "Mobility and Its Effects On Network Performance," ESF'05 Workshop, November 7, 2005
- * Z.J. Haas, "Mobility and Its Effects On Network Performance," *Middleware for Network Eccentric and Mobile Applications (MiNEMA) Workshop, MiNEMA Summer School*, Klagenfurt University, Klagenfurt, Austria, July 11-15, 2005
- * Z.J. Haas, "Inside the Communication Protocols: Teletraffic Engineering & Performance Evaluation," *Telefocal Asia*, Singapore, March 22, 2004
- * Z.J. Haas, "Mobile Ad Hoc Networks," IEEE Wireless Communications and Networking Conference (WCNC'00), Chicago, IL, September 23-28, 2000
- * Z.J. Haas, "Mobile Ad-Hoc Networks," *DIMACS Summer School on Foundations of Wireless Networks and Applications*, Rutgers University, Piscataway, NJ, Aug. 7 - 18, 2000
- * Z.J. Haas, "Wireless Networks: from Cellular to Ad-Hoc," *DIMACS Summer School on Foundations of Wireless Networks and Applications*, Rutgers University, Piscataway, NJ, August 7 - 18, 2000
- * Z.J. Haas, "Queueing Theory for Network Engineering," *MITRE Corporation*, Eatontown, NJ, 2000
- * Z.J. Haas, "Wireless Networks - from Cellular to Ad Hoc," IEEE Military Communications Conference (MILCOM'99), Atlantic City, NJ, Oct. 31 – Nov. 3, 1999
- * Z.J. Haas, "Mobile Ad Hoc Networks," IEEE Wireless Communications and Networking Conference (WCNC'99), New Orleans, LA, September 21-24, 1999
- * Z.J. Haas, "Mobile Ad Hoc Networks," IEEE Military Communications Conference (MILCOM'98), Bedford, MA, October 20-23, 1998
- * Z.J. Haas, "Mobility Management in TCP/IP Networks," IEEE Military Communications Conference (MILCOM'97), Monterey, CA, November 2-5, 1997
- * Z.J. Haas, "Wireless Cellular Networks," ACM/IEEE Mobicom'97, Budapest, Hungary, September 27- 30, 1997
- * Z.J. Haas, "Mobility Management in TCP/IP Networks," IEEE ICC'97, Montreal, Quebec, Canada, June 8-12, 1997
- * Z.J. Haas, "Mobility Management in TCP/IP Networks," IEEE GLOBECOM'97, London, United Kingdom, November 22, 1996
- * Z.J. Haas, "Mobility Management in Wireless Networks," ICUPC'96, Cambridge, MA, September 29, 1996
- * Z.J. Haas, "Mobility Management in Wireless Networks," ICC'96, Dallas, TX, June 23-27, 1996
- * Z.J. Haas, "Mobile Communication Networks," 6th IFIP International Conference on High Performance Networking (HPN'95), Palma De Mallorca, Balearic Islands, Spain, September 11-15, 1995

- * Z.J. Haas, "Mobility in TCP-IP Networks," IEEE Wireless'95, 1995
- * Z.J. Haas, "Mobile Communication Networks," ICC'95, Seattle, WA, June 18-22, 1995
- * Z.J. Haas, "Mobile Communication Networks," APCC, Osaka, Japan, June 13-16, 1995
- * Z.J. Haas, "Mobile Communication Networks," IPCCC, Scottsdale, AZ, March 28, 1995
- * Z.J. Haas, "Mobile Communication Networks," GLOBECOM'94, San-Francisco, CA, November 27, 1994
- * Z.J. Haas, "Personal Communication Services and Networks," SIGCOMM'94, University College London, London, UK, August 30 – September 2, 1994
- * Z.J. Haas, "Optical Networks," GLOBECOM'93, Houston, TX, December 3, 1993

III. PUBLICATIONS

(i) Refereed Journal/Archival Publications (in reverse chronological order)

1. S.N. Premnath and Z.J. Haas, "Security and Privacy in the Internet-of-Things under Time-and-Budget-limited Adversary Model," *IEEE Wireless Communications Letters* 4(3), pp. 277-280 , 2015, DOI: [10.1109/LWC.2015.2408609](https://doi.org/10.1109/LWC.2015.2408609)
2. S.M.N. Alam and Z.J. Haas, "Coverage and Connectivity in Three-Dimensional Networks with Random Node Deployment," Elsevier *Ad Hoc Networks Journal*, special issue on *Underwater Communications*, 2014, DOI: [10.1016/j.adhoc.2014.09.008](https://doi.org/10.1016/j.adhoc.2014.09.008), <http://dx.doi.org/10.1016/j.adhoc.2014.09.008>
3. Z.J. Haas and M. Nikolov, "Towards Optimal Broadcast in Wireless Networks," *IEEE Transactions on Mobile Computing*, vol.14, no. 7, pp. 1530-1544, 2014, DOI: [10.1109/TMC.2014.2356466](https://doi.org/10.1109/TMC.2014.2356466)
4. E.Y. Hua and Z.J. Haas, "Mobile-Projected Trajectory Algorithm with Velocity-Change Detection for Predicting Residual Link Lifetime in MANET," *IEEE Transactions on Vehicular Technology*, March 2015, vol. 64, no. 3, pp. 1065-1078, <http://dx.doi.org/10.1109/TVT.2014.2327232>
5. Z.J. Haas and M. Nikolov, "Towards Optimal Broadcasting," *CoRR* abs/1301.7101 (2013)
6. M.Z. Chawdhury, Y.M. Jang, and Z.J. Haas, "Call Admission Control based on Adaptive Allocation for Wireless Networks," *IEEE/KICS Journal of Communications and Networks (JCN)*, vol. 15, no. 1, pp. 15-24, Feb. 2013. (SCI)
7. F. Losilla, A.-J. Garcia-Sanchez, F. Garcia-Sanchez, J. Garcia-Haro, and Z.J. Haas, "A Comprehensive Approach to WSN-based ITS Applications: A Survey," *Sensors* 2011, 11, 10220-10265, October 28, 2011, doi:10.3390/s111110220
8. C. Garcia-Costa, E. Egea-Lopez, J. Tomas-Gabarron, J. Garcia-Haro, Z.J. Haas, "A stochastic model for chain collisions of vehicles equipped with vehicular communications," accepted for publications in the *IEEE Transactions on Intelligent Transportation Systems*, 2011
9. G.Y. Lee and Z.J. Haas, "Simple, Practical, and Effective Opportunistic Routing for Short-haul Multi-hop Wireless Networks," *IEEE Transactions on Wireless Communications*, 2011, pp. 3583-3588, DOI: [10.1109/TWC.2011.11.101713](https://doi.org/10.1109/TWC.2011.11.101713)
10. M.F. Elhawary and Z.J. Haas, "Energy-Efficient Protocol for Cooperative Transmission," *IEEE Transactions on Networking*, vol. 19, no.2, April 2011, pp. 561-574, DOI: [10.1109/TNET.2010.2089803](https://doi.org/10.1109/TNET.2010.2089803)
11. M.Z. Chawdhury, Y.M. Jang, and Z.J. Haas, "Cost-Effective Frequency Planning for Capacity Enhancement of Femtocellular Networks," *Wireless Personal Communications*, Springer Science, March 2, 2011, DOI: [10.1007/s11277-011-0258y](https://doi.org/10.1007/s11277-011-0258y)
12. ChuanYun Zou, Zygmunt J. Haas, and Sheng Zou, "Throughput maximization in UWB-based ad hoc networks," *SCIENCE CHINA, Information Sciences*, vol.53, no.12: 2538-2547, DOI: [10.1007/s11432-010-4120-8](https://doi.org/10.1007/s11432-010-4120-8)

13. [M.Z. Chowdhury, Y.M. Jang, and Z.J. Haas, "Network Evolution and QoS Provisioning for Integrated Femtocell/Macrocell Networks," *International Journal of Wireless & Mobile Networks \(IJWMN\)*, August 2010 \(.pdf\)](#)
14. [J. Oh and Z.J. Haas, "Personal Environment Service based on the Integration of Mobile Communications and Wireless Personal Area Networks," *IEEE Communications Magazine*, vol. 48, no. 6, June 2010, pp. 66 - 72 DOI: 10.1109/MCOM.2010.5473866](#)
15. [E.Y. Hua and Z.J. Haas, "An Algorithm for Prediction of Link Lifetime in MANET Based on Unscented Kalman Filter," *IEEE Communications Letters*, vol.13, no.10, October 2009, pp. 782-784](#)
16. [G.Y. Lee, Y. Lee, and Z.J. Haas, "Hybrid Location-Update Scheme for Mobile Networks," *IEEE Transactions on Vehicular Technology*, vol. 58, no. 1, January 2009, pp. 338-348](#)
17. [J. Jeong and Z.J. Haas, "Predeployed Secure Key Distribution Mechanism in Sensor Networks: Current State-of-the-Art and a New Approach Using Time Information," *IEEE Wireless Communication*, August 2008, pp. 42-51](#)
18. [Z. Wang, R.J. Thomas, and Z.J. Haas, "Performance comparison of Bluetooth Scatternet formation protocols for multi-hop networks," *Springer Wireless Networks \(WINET\)*, Volume 15, Number 2 / February, 2009, pp. 209-226](#)
19. [Z. Wang, R.J. Thomas, and Z.J. Haas, "Performance comparison of Bluetooth Scatternet formation protocols for multi-hop networks," on-line *Springer Wireless Networks \(WINET\)* journal, 2007, DOI: 10.1007/s11276-007-0036-7](#)
20. [J. Oh and Z.J. Haas, "A Scheme for Location-Based Internet Broadcasting and Its Applications," *IEEE Communications Magazine*, vol. 45, no. 11, November 2007, pp. 136-141, DOI: 10.1109/MCOM.2007.4378333](#)
21. [Z.J. Haas and T. Small, "Quality of Service and Capacity in Constrained Intermittent-Connectivity Networks," *IEEE Transactions on Mobile Computing*, vol.6, no.7, July 2007, pp. 803-814, DOI: 10.1109/TMC.2007.1033](#)
22. [Z.J. Haas and R. Barr, "Density-Independent, Scalable Search in Ad Hoc Networks," *Springer International Journal of Wireless Information Networks*, special issue on "PIMRC 2005," vol. 14, no. 2, June 2007, pp. 93-105](#)
23. [J. Jeong and Z.J. Haas, "An Integrated Security Framework for Open Wireless Networking Architecture," *IEEE Wireless Communications Magazine*, special issue on "Technologies On Future Converged Wireless And Mobility Platform," vol.14, no.2, April 2007, pp.10-18, DOI: 10.1109/MWC.2007.358959](#)
24. [O. Arpacioglu and Z.J. Haas, "On the Scalability and Capacity of Single-User-Detection Based Wireless Networks with Isotropic Antennas," *IEEE Transactions on Wireless Communications*, vol.6, no.1, January 2007, pp.8-15](#)
25. [S.M. Nazrul Alam, Z.J. Haas "Topology Control and Network Lifetime in Three-Dimensional Wireless Sensor Networks," September 11, 2006, arXiv:cs/0609047](#)
26. [Ben Liang and Zygmunt J. Haas, "Hybrid Routing in Ad Hoc Networks with Dynamic Virtual Backbone," *IEEE Transactions on Wireless Communications*, vol. 5, no. 6, June 2006, pp.1392-1405](#)
27. [Z.J. Haas, J.Y. Halpern, and E.L. Li, "Gossip-based Ad Hoc Routing," *IEEE/ACM Transactions on Networking*, vol.14, no.3, June 2006, pp.479-491](#)

28. [J. Deng, Y.S. Han, Z.J. Haas, "Analyzing Split Channel Medium Access Control Schemes," *IEEE Transactions on Wireless Communications*, vol.5, no.5, May 2006, pp.967-971](#)
29. [Z.J. Haas and Tara Small, "A New Networking Model for Biological Applications of Ad Hoc Sensor Networks," *ACM/IEEE Transactions on Networking*, vol.14, no.1, February 2006, pp.27-40](#)
30. [P. Papadimitratos and Z.J. Haas, "Securing Data Communication in Mobile Ad Hoc Networks," *IEEE Journal on Selected Issues in Communications \(JSAC\)*, special issue on "Security in Wireless Ad Hoc Networks," vol.24, no.2, February 2006, pp.343-356](#)
31. [L.E. Miller and Z.J. Haas, "Public Safety Applications of Wireless Communication and Networking Technologies," Editorial, *IEEE Communications Magazine*, vol.44, no.1, January 2006, pp. 28-29 \(issue cover\)](#)
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69. Z.J. Haas, "Mobile-TCP: An Asymmetric Transport Protocol Design for Mobile Systems," 3rd International Workshop on Mobile Multimedia Communications - MoMuc-3, Princeton, NJ, September 25-27, 1996
70. Z.J. Haas, "Location-Independent Access in Mobile Systems," ICC'96, Dallas, TX, June 23-27, 1996
71. A. Ganz, Z.J. Haas, and C. M. Krishna, "Multi-Tier Wireless Networks for PCS," IEEE Vehicular Technology Conference, Atlanta, GA, April 29, 1996 - May 1, 1996
72. Z.J. Haas, "The Progressive Execution Technique for Mobile Systems," IEEE MILCOM'95, pp. 501-507, San-Diego, CA, November 5-8, 1995
73. Z.J. Haas, J. H. Winters, and D. S. Johnson, "Additional Results on the Capacity Bounds in Cellular Systems," GLOBECOM'94, San Francisco, CA, November 29 - December 1, 1994, pp. 1652-1658
74. Z.J. Haas, "On the Design of a Mobile System," MOBIDATA Workshop, Rutgers University, Piscataway, NJ, November 1, 1994
75. Z.J. Haas, "MobiNet: The Mobile Computing Environment," AT&T Workshop on Wireless Communications and Mobile Computing, Holmdel, NJ, October 3-4, 1994

76. Z.J. Haas and S. Paul, "Secure Access to Electronic Newspaper," WCN'94, The Hague, Holland, September 19-23, 1994
77. Z.J. Haas, J. H. Winters, and D. S. Johnson, "Simulation Results of Cellular Capacity Bounds," PIMRC'94, The Hague, Holland, September 19-23, 1994, paper no. B.7.2, pp. 1114-1120
78. C. B. Woodworth, M. J. Karol, Z.J. Haas, and R. D. Gitlin, "Spectrally Efficient Universal Time Slots Using Time-Frequency-Code Slicing," PIMRC'94, The Hague, Holland, September 19-23, 1994
79. Z.J. Haas, J. H. Winters, and D. S. Johnson, "Simulation Results of Cellular Capacity Bounds," 5th Maryland Workshop on Very High Speed Networks, Baltimore, MD, March 14-16, 1994
80. Z. Haas and C-L. I, "On Handoffs in Packetized Wireless Systems," VTC'93. Also presented with modifications at ICUPC'93 and GLOBECOM'93, Houston, TX, November, 29 – December 2, 1993
81. R. Izmailov and Z. Haas, "Performance Evaluation of the Optical Staggering Switch," GLOBECOM'93, Houston, TX, November 29 - December 3, 1993
82. Z.J. Haas, J. H. Winters, and D. S. Johnson, "On the Capacity Bounds in Cellular Systems," *Invited Paper*, Allerton Conf. on Comm., Control, and Comp., Monticello, IL, Sept. 29 - Oct. 1, 1993
83. Z. Haas, "Comparison of Performance of the Feed-forward and Feedback Configurations of the Staggering Switch Architecture," SPIE'93
84. Z. Haas, "Extensions to the Staggering Switch Architecture," INFOCOM'93, San-Francisco, CA, March 30-April 2, 1993
85. J. Winters, Z. Haas, M. Santoro, and A. Gnauck "Optical Equalization of Polarization Dispersion," SPIE'92, Boston, MA, September 8-9, 1992
86. J. Winters, M. Santoro, and Z. Haas, "On the Experimental Measurements of PMD Effects," SPIE'92, vol. 1784, Boston, MA, September 8-9, 1992
87. Z. Haas, "The Staggering Switch: An Almost-all Optical Packet Switch," OFC'92
88. Z. Haas, "On the Design of the 'Staggering Switch'," LEOS'92
89. R. Izmailov and Z. Haas, "Performance Evaluation of the Optical Staggering Switch in Underload Conditions," Conference on Information Sciences and Systems, 1992
90. Z. Haas "Gbps optical connectivity with the "Staggering Switch," SPIE'92
91. Z. Haas, "On the Design of ATM-based, Broadband, Optical Communication Networks," AT&T Workshop
92. Z. Haas and R. D. Gitlin "Optical Distribution Channel: An 'Almost-all' Optical LAN based on the Field-coding Technique," INFOCOM'92
93. Z. Haas, "Optical Distribution Channel: An "Almost-all" Optical LAN based on the Field-coding Technique," SPIE's International Symposium OE/FIBERS'91, Boston, MA, September 3- 6, 1991
94. Z. Haas and M. M. Santoro, "Extending the bandwidth \Theta distance product for multi-mode fibers," SPIE's International Symposium OE/FIBERS'91, Boston, MA, September 3-6, 1991

95. Z. Haas and J. H. Winters, "Adaptive Admission Congestion Control," INFOCOM'91, Bal Harbour, FL, April 7-8, 1991
96. Z. Haas and R. D. Gitlin, "On the Packet Size in Integrated Networks," INFOCOM'91, Bal Harbour, FL, April 7-8, 1991
97. Z. Haas and R. D. Gitlin, "Field Coding: A High-speed 'Almost-all' Optical Interconnect," CISS, Baltimore, March 20-22, 1991
98. Z. Haas and J. H. Winters, "Congestion Control by Adaptive Admission," presented at the AT&T Joint Symposium on Performance Analysis and Teletraffic Research, Holmdel, NJ, December 12 & 13, 1990
99. Z. Haas, "Congestion Control by Adaptive Admission in Metropolitan Area Networks," presented at Fourth IEEE Workshop on MAN, Captiva, FL, November 4-7, 1990
100. Zygmunt Haas, "A Gbps, 'Almost-all' Optical Switch and Local-area Network," Network'90, June 1990, Birmingham, England
101. Z. Haas, "A Communication Architecture for High-speed Networking," IEEE INFOCOM'90, San-Francisco, CA, June 5-7, 1990
102. Z. Haas, "BLAZELAN: A Photonic Local-area Network for Distributed and Parallel Processing," GLOBECOM '89, Dallas, TX, November 27-30, 1989
103. Z. Haas, "BLAZELAN: A Photonic Network for Distributed and Parallel Processing," 6th IEEE International Workshop on Microelectronics and Photonics in Communications, New Seabury, Cap Cod, MA, June 7-9, 1989
104. Z. Haas and R. D. Gitlin, "On the Packet Size in Integrated Networks," AT&T Symposium on Teletraffic Research, AT&T Bell Laboratories, Holmdel, NJ, May 23-24, 1989
105. Z. Haas, "BLAZELAN: A Photonic Network for Distributed and Parallel Processing," Third IEEE Workshop on Metropolitan Area Networks, San Diego, CA, March 28-30, 1989
106. Z. Haas and D. R. Cheriton, "A Case for Packet-Switching in High-Performance Wide-Area Networks," SIGCOMM 87 Workshop, Stowe VT, August 11-13, 1987
107. Z. Haas and D. R. Cheriton, "Blazenet: A High Performance Wide-Area Network Using Optical Fibers," IEEE Pacific RIM Conference, Victoria, Canada, June 4-5, 1987

(iii) Books & Book Chapters

1. Zygmunt J. Haas, Lin Yang, Meng-Ling Liu, Qiao Li, and Fangxin Li, "Current Challenges and Approaches in Securing Communications for Sensors and Actuators," Chapter 17 in the "Art of Wireless Sensor Networks," H.M. Ammari, ed., Springer-Verlag Berlin Heidelberg, 2014, pp. 569-608; DOI: 10.1007/978-3-642-40009-7_17
2. Zygmunt J. Haas, Seung-Keun Yoon, and J.H. Kim, "Energy-Efficient Routing in Delay-Tolerant Networks," in "Green IT: Technologies and Applications," chapter 5, Springer-Verlag, 2011
3. Seung-Keun Yoon and Zygmunt J. Haas, "Energy-aware Routing Protocol for Delay Tolerant Networks," in "Delay Tolerant Networks: Protocols and Applications," CRC

Press, Editors: Edited by A. Vasilakos, Y. Zhang, and T. Spyropoulos, 2010, ISBN: 978-1-4398110-8-5

4. S.M. Nazrul Alam and Zygmunt J. Haas, "Topology Control of Three-Dimensional Underwater Wireless Sensor Networks," in *Underwater Acoustic Sensor Networks*, Y. Xiao, editor, CRC Press, 2010; ISBN: 9781420067118
5. Z.J. Haas, J.Y. Halpern, L. Li, S.B. Wicker, "A Decision-Theoretical Approach to Resource Allocation in Wireless Multimedia Networks," in *Resource Allocation in Next Generation Wireless Networks, Volume 5*, W. Li and Y. Pan, Editors, Nova Science Publishers, 2006, chapter 1, pp.1-23
6. R. Barr, Z.J. Haas, and R. van Renesse, "Scalable Wireless Ad Hoc Network Simulation," *Handbook on Theoretical and Algorithmic Aspects of Sensor, Ad Hoc Wireless, and Peer-to-Peer Networks*, Jie Wu, Editor, CRC Press, 2005
7. P. Papadimitratos, and Z.J. Haas, "Securing Mobile Ad Hoc Networks," *Mobile Computing Handbook*, M. Ilyas and I. Mahgoub, Editors, Auerbach Publication, Chapter 21, pp. 457 -- 481, 2005
8. T. Small, Z.J. Haas, A. Purgue, and K. Fristrup, "A Sensor Network for Biological Data Acquisition," *Handbook of Sensor Networks: Compact Wireless and Wired Sensing Systems*, M. Ilyas and I. Mahgoub, Editors, CRC Press, 2005, pp. 11-1 -- 11-17
9. D-S. Kim and Z.J. Haas, "Virtual Factory Communication Systems using ISO 9506 standard and Its Application to Networked Factory Machine," *The Industrial Communication System Handbook*, CRC Press, FL, January, 2005
10. P. Papadimitratos, and Z.J. Haas, "Secure Mobile Ad Hoc Networks," *Ad Hoc Wireless Networking*, Kluwer Academic Publisher, 2004
11. P. Samar, M. R. Pearlman, and Z.J. Haas, "Hybrid Routing: The Pursuit of an Adaptable and Scalable Routing Framework for Ad Hoc Networks," *Ad Hoc Wireless Networking*, Kluwer Academic Publisher, 2004
12. D-S. Kim, W.H. Kwon, and Z.J. Haas, "Implementation of Virtual Factory Communication Systems using Manufacturing Message Specification," in *The Handbook of Industrial Information Technology*, CRC Press, November 2004
13. P. Papadimitratos, and Z.J. Haas, "Secure Communication in Adverse Mobile Ad Hoc Networks," *The Handbook of Ad Hoc Wireless Networks*, CRC Press, Chapter 31, pp. 31-1 -- 31-17, 2003
14. P. Samar, M. R. Pearlman, and Z.J. Haas, "Hybrid Routing: The Pursuit of an Adaptable and Scalable Routing Framework for Ad Hoc Networks," *The Handbook of Ad Hoc Wireless Networks*, CRC Press, Chapter 14, pp. 14-1 -- 14-18, 2003
15. Z.J. Haas and M.R. Pearlman, "Evaluation of the Ad-Hoc Connectivity with the Zone Routing Protocol," *Wireless Personal Communications, The Springer International Series in Engineering and Computer Science*, vol.482, 2002, pp.201-212
16. Z.J. Haas, "Providing Ad-Hoc Connectivity with the Reconfigurable Wireless Networks," *Ad-Hoc Networks*, edited by Charlie Perkins, Addison Wesley, 1998
17. Z.J. Haas, "Mobile-TCP: An Asymmetric Transport Protocol Design for Mobile Systems," in *Mobile Multimedia Communications*, edited by D. J. Goodman and D. Raychadhuri, Plenum Publishing, 1997

18. Z. Haas, "Optical Network Architectures," contributed chapter in *High Performance Networks*, edited by A. N. Tantawy, Kluwer Academic Publishers, 1994
19. Z. Haas, "Packet Switching," article in *Encyclopedia of Computer Science and Technology*, vol. 27, supplement 12, 1993

(iv) Miscellaneous Publications

1. P. Papadimitratos, Z. J. Haas, and P. Samar, "The Secure Routing Protocol (SRP) for Ad Hoc Networks," Internet Draft, `draft-secure-routing-protocol-00.txt`, December 2002
2. Z.J. Haas and M.R. Pearlman, "The Zone Routing Protocol (ZRP) for Ad Hoc Networks," Internet Draft, `draft-haas-zone-routing-protocol.00.txt`, November 1997
3. Zygmunt Haas, "Packet-Switching in Future Fiber-Optic Wide-Area Networks," Ph.D. thesis, Stanford University, Electrical Engineering Department, May 1988
4. Z. Haas and D. Cheriton, "Blazenet: A Photonic Implementable Wide-Area Network," Technical Report, STAN-CS-87-1185, Stanford University, October 1987
5. Zygmunt Haas, "Local Area Networks and Access Techniques in Local Area Networks," *M.Sc. thesis*, Tel-Aviv University, Spring 1985
6. Zygmunt Haas, "Measuring Lag Phenomena in Plumbicons," Technical Report, Philips Research Labs., ELCOMA division, September 1979

IV. TEACHING & ADVISING

(i) Graduate (M.S./Ph.D.)Students (marked with ♀ if committee chair)

Current Graduate Students

- * Mr. Milen Nikolov
- * Ms. Zhinan Li
- * Ms. Juliette Ugirumurera
- * Mr. Ashkan Yosefpour
- * Ms. Shuyang Gu

Past Graduate Students ((marked with ♀ if committee chair)

- * Mr. Mohamed Elhawary (M.S.)
- * ♀ Dr. Edward Hua (Ph.D)
- * Dr. Tuanche Chen (Ph.D)
- * ♀ Dr. Seung-Keun Yoon (Ph.D)
- * ♀ Dr. Edward Hua (Ph.D)
- * ♀ Dr. Onur Arpaciglu (Ph.D., 2006)
- * Dr. Douglas S. Chan (Ph.D., 2006)
- * ♀ Dr. Rimon Barr (Ph.D., 2004)
- * Dr. Amit Butala (Ph.D., 2001)
- * ♀ Prof. Jing Deng (Ph.D., 2002)
- * ♀ Ms. Debby Dyson (M.S., 1998)
- * ♀ Prof. Rung-Hung (Michael) Gau (Ph.D., 2001)
- * ♀ Prof. Chih-Peng Li (Ph.D., 1998)
- * ♀ Prof. Ben Liang (Ph.D., 2001)
- * Dr. Erran Li Li (Ph.D., 2001)
- * ♀ Mr. Ivan Lysiuk (M.S., 2006)
- * Dr. Yasser Mourtada (Ph.D., 2004)
- * Dr. Wei Tsang Ooi (Ph.D., 2001)
- * ♀ Dr. Panagiotis Papadimitratos (Ph.D., 2005)
- * ♀ Mr. Marc Pearlman (M.S., 1999)
- * Dr. Lili Qiu (Ph.D., 2001)
- * ♀ Ms. S. Sajama (M.S., 2001)
- * ♀ Dr. Prince Samar (M.S., 2003)
- * Dr. Manpreet Singh (Ph.D., 2006)
- * ♀ Dr. Tara Small (Ph.D., 2005)
- * ♀ Dr. Aristotelis Tsirigos (M.S., 2001)
- * Dr. Jia Wang (Ph.D., 2001)
- * Dr. Xiaofei Wang (Ph.D., 2005)
- * Dr. Zhifang Wang (Ph.D., 2005)
- * ♀ Mr. Abhijit Warkhedi (M.S., 2000)
- * Dr. Yin Zhang (Ph.D., 2001)

- *  Dr. Lidong Zhou (Ph.D., 2001)

(ii) Post Docs and Visiting Scholars (name; institution; internship period)

- * Dr. Sriram Nandha Premnath; University of Utah, School of Computing; Feb. 2013 –
- * Prof. Joan Garcia-Haro; Department of Information Technologies and Comm.; Polytechnic University of Cartagena ETSIT, Spain; June 1, 2010 – May 31, 2011
- * Prof. Goo Yeon Lee; Kangwon National University, Korea; January 14, 2010 – January 15, 2011
- * Dr. Yong Lee; ChungJu National University, Chungbuk 380-702, Republic of Korea Korea; July 1, 2009 – June 30, 2011
- * Dr. QingShan Wang; Department of Mathematics, Hefei University of Technology, Hefei, P. R. China; August 20, 2009 – August 19, 2010
- * Mr. Tuan-Che Chen; Department of Computer Science, National Tsing Hua University, Hsinchu, Taiwan; funded by the National Science Council (NSC) of Taiwan; April 1, 2009 to March 31, 2010
- * Prof. Yeong Min Jang; Associate Professor, Director/Ubiquitous IT Convergence Research Center, School of Electrical Engineering, Kookmin University, Seoul, South Korea; September 1, 2008 - August 30, 2009
- * Dr. Jong Min Jeong; Mobile Network Security Technology Research Center, Kyungpook National University, South Korea; January 2, 2006 – June 30, 2008
- * Prof. Jongtaek Oh; Information and Communication Division, Hansung University, Seoul, South Korea; January 3, 2006 - February 12, 2007
- * Dr. Ki-II Kim; Computer Communication Laboratory, Department of Computer Science, Chungnam National University, South Korea; May 1, 2005 - April 3, 2006
- * Ms. Hye Jeong Lee; Department of Electrical Engineering, KAIST, South Korea; April 15, 2005 – February 28, 2006
- * Prof. Ke Shi; Cluster and Grid Computing Lab, School of Computer Science, Huazhong University of Science & Technology, Wuhan, Hubei, China; September 1, 2004 – March 31, 2006
- * Dr. Jieying Zhou, Associate Professor, Department of Electronics and Communication Engineering, Zhongshan University, China
- * Prof. Qin Wang, Computer Department of Information Engineering School, University of Science & Technology, Beijing, China, August 31, 2005 – January 31, 2006
- * Ms. Xiaoyan Zhang; School of Software Engineering, Beijing University of Posts and Telecommunications (BUPT), Beijing, P.R. China; April 1, 2004 - March 31, 2005
- * Dr. Yong Lee; Ewha Women's University, Seoul, South Korea; March 1, 2004 - August 30, 2005
- * Dr. Chuanyun Zou; Department of Telecommunication and Information Engineering, Guilin University of Electronic Technology, Guangxi, P.R. China; February 1, 2004 - January 31, 2005
- * Prof. Goo Yeon Lee; Kangwon National University, Korea; July 1, 2003 - February 28, 2005
- * Dr. Dong-Sung Kim; Seoul National University, Korea; March 1, 2003 - February 28, 2005

- * Dr. Suwon Lee; Kwangju Institute of Science and Technology (K-JIST), Korea; March 1, 2003 - February 28, 2004
- * Dr. Jaeweon Cho; Samsung Electronics, Korea; September 1, 2002 - October 24, 2003
- * Dr. Jiandong Li; School of Telecommunications Engineering, Xidian University, People's Republic of China; November 20, 2001 - November 9, 2002
- * Dr. Masugi Inoue; Yokosuka Radio Communications Research Center, Communications Research Laboratory (CRL), Ministry of Posts and Telecommunications, Japan; March 1, 2000 - February 28, 2001 (at Polytechnic University)
- * Prof. Miguel Sanchez; Universidad Politecnica de Valencia, Spain; February 1999 - May 1999
- * Dr. Jost Weinmiller; Technical University of Berlin, Germany; January 1998 - July 1998
- * Dr. Ahmed Saifuddin; Communication Research Laboratory, Japan; January 1998 – May 1998

(iii) Selected Undergraduate Research Advising (sorted by students' last names)

- * Beum Seok Kim, "*Security in Wireless Networks*," Spring 2011
- * Cai, Desmond, "*JiST Catalog Tool*," Fall 2008
- * Choy, Chun-Tsung, "*Mobility Modeling*," Fall 1996
- * Ho, Tsz-Chun, "*Video on the Web*," Fall 1997
- * Kwok, Kenneth C H, "*Mobile TCP*," Summer 1997
- * Michael Gutman, "*Mobile TCP*," Summer 1997
- * Orleano, Jose, "*Wireless Lab*," Spring 1997
- * Rusak, Tal, "*SIR Prediction for Sensor Networks*," Fall 2008
- * Rusak, Tal, "*WNL Web Pages*," May 2007
- * Sheh, Javier, "*Mobile TCP*," Fall 1997
- * Bapna, Abhishek, "*Simulation of ZRP in Opnet*"
- * Sheh, Javier, "*Secure Web Pages*," Spring 1997
- * Torza, Anthony, "*Simulation of Ad-Hoc Networks*," Spring 1998
- * Yeh, Charles, "*Design of a Reliable Spam Filter*"

(iv) Master of Engineering Project/Research Advising (by students' last names)

→ Omitted, due to the volume of the material.

(v) Courses Taught (semester; course #/title; number of students/credit hours)

- * Spring 2015: CS 6301/Wireless Networks; UTD/CS
- * Spring 2015: CE/CS 6390/Advanced Computer Networks; UTD/CS
- * Spring 2014: CS 6301/Wireless Networks; 42 students/126 credit hours; UTD/CS
- * Fall 2013: CE/CS 6390/Advanced Computer Networks; 48 students/144 credit hours; UTD/CS
- * Spring 2013:ECE 4960/Wireless Networks; 30 students/120 credit hours; Cornell/ECE
- * Fall 2012: ECE 3100/Probability and Inference; 60 students/240 credit hours; Cornell/ECE
- * Spring 2012: ECE 5660/Fundamentals of Networks; 11 students/44 credit hours; Cornell/ECE
- * Fall 2011: “Wireless Networks”, Technion, Israeli Institute of Technology, Haifa, Israel
- * Spring 2011: Leave of Absence (NSF)
- * Fall 2010: Leave of Absence (NSF)
- * Spring 2010: ECE 3200/Networks and Systems; 36 students/144 credit hours; Cornell/ECE
- * Fall 2009: ECE 5660/Fundamentals of Networks; 15 students/60 credit hours; Cornell/ECE
- * Spring 2009: Sabbatical Leave; Cornell/ECE
- * Fall 2008: ECE 5660/Fundamentals of Networks; 20 students/80 credit hours; Cornell/ECE
- * Spring 2008: ECE 3100/Introduction to Probability and Random Phenomena; 79 students/316 credit hours; Cornell/ECE
- * ECE 566/ Fundamentals of Networks; Fall 2007; 10 students/40 credit hours; Cornell/ECE
- * ENGRG150/Freshmen Seminar; Fall 2007; 19 students/19 credit hours; Cornell/ECE
- * ECE 310/Introduction to Probability and Random Phenomena; Spring 2007; 77 students/308 credit hours; Cornell/ECE
- * ECE 566/ Fundamentals of Networks; Fall 2006; 27 students/108 credit hours
- * ECE 691/ECE Colloquium; Fall 2006 (Plus); ECE Colloquium; 28 students; 28 student credit hours; Cornell/ECE
- * ECE 310/Introduction to Probability and Random Phenomena; Spring 2006; 75 students/300 credit hours; Cornell/ECE
- * ECE 566/Wireless Networks; Fall 2005; 26 students/104 credit hours; Cornell/ECE
- * ECE 310/Introduction to Probability and Random Phenomena; Spring 2005; 71 students/284 credit hours; Cornell/ECE
- * ECE 566/Wireless Networks; Fall 2004; 16 students/64 credit hours; Cornell/ECE
- * ECE 566/Wireless Networks; Spring 2004; 28 students/112 credit hours; Cornell/ECE
- * ECE 563/Communication Networks; Fall 2003; 19 students/76 credit hours; Cornell/ECE
- * Spring 2003: Sabbatical Leave - no teaching assignment
- * ECE 230/Introduction to Digital Logic Design; Fall 2002; Cornell/ECE
- * ECE 563/Communication Networks; Fall 2002; 19 students/76 credit hours; Cornell/ECE
- * ENGRG150/Freshmen Seminar; Fall 2003; 18 students/18 credit hours; Cornell/ECE

- * ECE 566/Wireless Networks; Spring 2002; 73 students/292 credit hours; Cornell/ECE
- * ECE 445/Computer Networks; Fall 2001; 146 students/584 credit hours; Cornell/ECE
- * ECE 566/Wireless Networks; Spring 2001; 74 students/296 credit hours; Cornell/ECE
- * ECE 445/Computer Networks; Fall 2000; 144 students/576 credit hours; Cornell/ECE
- * EE 597/Wireless Information Technology Seminar (WITS); Fall 2000; 12 students/24 credit hours; Cornell/ECE
- * ENGRG 150/Engineering Seminar; Fall 2000; 19 students/19 credit hours; Cornell/ECE
- * EE 566/Wireless Networks; Spring 2000; 58 students/232 credit hours; Cornell/ECE
- * EE 595/Wireless Information Technology Seminar (WITS); Spring 2000; 13 students/26 credit hours; Cornell/ECE
- * ELE 936/Wireless Networks I; Fall 1999; 43 students; Polytechnic University, NYC, NY
- * EE 566/Wireless Networks; Spring 1999; 42 students/168 credit hours; Cornell/ECE
- * EE 445/Computer Networks; Fall 1998; 147 students/588 credit hours; Cornell/ECE
- * EE 597/Wireless Information Technology Seminar (WITS); Fall 1998; 9 students/18 credit hours; Cornell/ECE
- * EE 566/Wireless Networks; Spring 1998; 43 students/172 credit hours
- * EE 597/Wireless Information Technology Seminar (WITS); Spring 1998; 11 students/22 credit hours
- * EE 445/Computer Networks; Fall 1997; 99 students/396 credit hours
- * EE 566/Wireless Networks; Spring 1997; 45 students/180 credit hours
- * EE 445/Computer Networks; Fall 1996; 122 students/366 credit hours
- * EE 595/Wireless Information Technology Seminar (WITS); Fall 1996; 20 students/40 credit hours
- * EE 566/Wireless Networks; Spring 1996; 74 students/296 credit hours
- * EE 445/Computer Networks; Fall 1995; 155 students/465 credit hours

V. PROFESSIONAL & SCIENTIFIC SERVICE

(i) University Committees

- * Member of “Graduate Admission Committee,” Computer Science Department, UTD, 2014-present
- * Member of “Web Design and Marketing Committee,” Computer Science Department, UTD, 2014-present
- * Member of “Recruiting Committee,” Computer Science, UTD, 2014-present
- * Member of *Center for Applied Math (CAM) Graduate Admission Committee*, Cornell University, 2012-2013
- * Member of the *College Admissions Advisory Committee*, College of Engineering, Cornell University, June 2012 - June 2013
- * Member of the *Engineering Courses Subcommittee*, CCGB, College of Engineering, Cornell University, 2009 – 2010
- * Member of the *Technical Writing Subcommittee*, CCGB, College of Engineering, Cornell University, 2009 – 2010
- * Member of the *College Curriculum Governing Board (CCGB)*, College of Engineering, Cornell University, 2009 – 2010
- * Member of the *Faculty Admissions Advisory Committee*, College of Engineering, Cornell University, (third term) June 2009 - June 2012
- * Multiple *Ad Hoc Tenure Promotion*, School of Electrical Engineering, Cornell University 1998 – 2013
- * Multiple *Ad Hoc Promotion Committees*, *Ad Hoc Reappointment Committees*, and *Ad Hoc Tenure Promotion*, College of Engineering, Cornell University 1998 – 2013
- * Member of Policy Committee, School of Electrical and Computer Engineering, Cornell University, 2008 – 2010 (elected)
- * Member of Graduate Committee, School of Electrical and Computer Engineering, Cornell University, 2007 – 2008
- * Member of Recruiting Committee, School of Electrical and Computer Engineering, Cornell University, 2007 – 2008
- * Member of the *Faculty Admissions Advisory Committee*, College of Engineering, Cornell University, (second term) June 2006 – June 2009
- * *Associate Director for Academic Affairs*, School of Electrical and Computer Engineering, Cornell University, 2005 – 2006
- * Review Board Member, *Learning Initiatives For Engineers (LIFE)*, Undergraduate Research Program, College of Engineering, Cornell University, 2005 – 2006
- * Member of the *Policy Committee*, School of Electrical and Computer Engineering, Cornell University, 2005 – 2006 (elected)
- * Member of the *M. Eng Committee*, School of Electrical and Computer Engineering, Cornell University, 2004 – 2007
- * Member of the *Faculty Admissions Advisory Committee*, College of Engineering, Cornell University, June 2004 – June 2006
- * Member of *Recruiting Committees*, School of Electrical and Computer Engineering, Cornell University, 2004 – 2006

- * Member of the *College of Engineering Nomination Committee*, Cornell University, 1997 – 1999
- * Member of *Faculty Advisory Board on Information Technologies (FABIT)*, Cornell University, 1997/98 and 1999/00 (Cornell Faculty Senate appointment)
- * Member of the *Computer Science Recruiting Committee*, Cornell University, 1996
- * Member of the *Circuit Recruiting Committee*, Cornell Univ., School of EE, 1996 – 1997
- * Member of the *Long Term Recruiting Committee*, Cornell Univ., School of EE, 1996 – 1997 (elected)
- * Member of the *Engineering Distribution CCGB Standing Committee*, Cornell University, 1995 – 1998

(ii) Editorial Service

- * Editor-in-Chief of *eScripts*, a novel publication enterprise of the European Commission
- * Serving on the Advisory Board and the Editorial Board of the *Wireless Communications and Mobile Computing* journal (John Wiley & Sons)
- * Served on the Editorial Board of Springer *Wireless Networks (WINET)* Journal
- * Serving on the Editorial Board of *Journal of High Speed Networks*
- * Served on the Editorial Board of *ACM/IEEE Transactions on Networking*
- * Served on the Editorial Board of *IEEE Transactions of Wireless Communications*
- * Served on the Editorial Board of *IEEE Communications Magazine*
- * Served on the Editorial Board of *Computer Networks and ISDN Systems Journal*
- * Served on the Editorial Board of *IEEE Personal Communications Magazine*
- * Lead guest editor for the *IEEE Journal on Selected Areas in Communications*, issue on “Mobile Computing Networks,” vol.13, no.5, June 1995
- * Lead guest editor for the *IEEE Journal on Selected Areas in Communications*, issue on “Ad Hoc Networks,” vol.17, no.8, August 1999
- * Co-guest editor of special issue of *Wireless Networks* journal on “Mobicom'96,” 1997
- * Lead guest editor for the *IEEE Journal on Selected Areas in Communications*, issue on “Protocols for Gigabit Networks,” vol. 11, no. 4, May 1993

(iii) Service to the Scientific Community at Large

- * Workshop Technical Program Co-Chair of the *2015 IEEE International Conference on Healthcare Informatics*, Dallas, TX, October 21-23, 2015 ([CFP](#))
- * Member of the [Advisory Committee](#) of the *American Amazing Teens (AAT)* program
- * Member of International Advisory Committee of the *IEEE ICUFN 2014, Sixth International Conference on Ubiquitous and Future Networks 2014*, Shanghai, China, July 8-11, 2014 ([CFP](#))
- * Member of the International Advisory Committee of the *International Conference on Information and Communication Technology Convergence 2013 (ICTC 2013)*, Jeju Island, S. Korea, October 14-16, 2013 ([CFP](#))
- * Member of the Steering Committee of *The Second ACM Annual International Workshop on Mission-oriented Wireless Sensor Networking (ACM MiSeNet 20123)*, in conjunction with ACM MobiCom 2013, Miami, FL, September 30, 2013

- * Member of International Advisory Committee of the IEEE ICUFN 2013, Fifth International Conference on Ubiquitous and Future Networks 2013, Da Nang, Vietnam, July 2-5, 2013 (CFP)
- * Member of the Steering Committee of The First ACM Annual International Workshop on Mission-oriented Wireless Sensor Networking (ACM MiSeNet 2012), in conjunction with ACM MobiCom 2012, Istanbul, Turkey, August 26, 2012 (technical program)
- * Member of the International Advisory Committee of the IEEE International Conference on Information and Communication Technology Convergence 2012 (ICTC 2012), Jeju Island, S. Korea, October 15-17, 2012
- * Member of the Steering Committee of ACM MSWiM, 2012, Istanbul, Turkey, August 26, 2012
- * General co-chair of “The Fourth International Workshop on Information Quality and Quality of Service for Pervasive Computing (IQ2S’12)”, in Conjunction with IEEE PERCOM 2012, Lugano, Switzerland, March 19-23, 2012 (website) (CFP)
- * Member of International Advisory Committee of the IEEE ICUFN 2012 (The Fourth International Conference on Ubiquitous and Future Networks), Puket, Tailand, July 4-6, 2012
- * Moderator of the “What’s Next for Underwater Networks?” Panel, “The Fifth International Workshop on UnderWater Networks (WUWNets’10)”, Woods Hole, MA, September 30 – October 1, 2010
- * Member of the International Advisory of the “International Conference on ICT Convergence 2010 (ICTC 2010)”, Jeju, Jeju Island, South Korea, Nov. 17-19, 2010
- * Member of International Advisory Committee of the “Second IEEE International Conference on Ubiquitous and Future Networks (ICUFN 2010)”, June 16-18, 2010, Jeju Island, Korea (ICUFN 2010)
- * Member of International Advisory Committee of the “First IEEE International Conference on Ubiquitous and Future Networks (ICUFN 2009)”, June 7-9, 2009, Hong Kong, China
- * Chair of the Steering Committee of IEEE Pervasive Computing magazine, January 1, 2005 – December 31, 2007
- * Member of the IEEE TCPC Award Committee, September 2004 - September 2007
- * Member of the Steering Committee, ACM MOBICOM, 2004-now
- * General Chair, Workshop on “Intermittently Connected Mobile Ad Hoc Networks (ICMAN), in conjunction with IEEE PerCom 2007, New York, NY, March 26-30, 2007
- * Member of Advisory Committee of “The First International Conference on Sensor Technologies and Applications (SENSORCOMM 2007), sponsored by IARIA, Valencia, Spain, October 14-20, 2007, <http://www.iaria.org/conferences2007/CfPSENSORCOMM07.html>
- * General Co-Chair, “Fifth Workshop on Applications and Services in Wireless Networks (ASWN 2005)”, Maison de la Chimie, Paris, France, June 28 - July 1, 2005
- * General Chair, ACM MOBICOM 2004, Philadelphia, PA, Sept. 26 – Oct. 1, 2004
- * Panelist and Moderator of the “Ad Hoc Networks” panel, IEEE MILCOM’97, Monterey, CA, November 2-5, 1997
- * Steering Committee and TPC Member of the Fourth High Performance Communication Subsystems Workshop, Sani Beach, Chalkididi, Greece, June 23-25, 1997

- * Elected and served as the secretary (2 years), vice-chair (2 years), and chair (2 years) of *IEEE Technical Committee on Personal Communications (TCPC)*
- * Member of the NSF-NCR Workshop on “Research Priorities in Networking and Communications,” May 12-14, 1994, Airlie House, Virginia
- * Representing AT&T on *the Personal Conferencing Specification Working Group*
- * Served on National Science Foundation review panels
- * Vice-chair of the *2nd Workshop on High Performance Communication Subsystems (HPCS'93)*
- * Organized and chaired "Who needs all-optical networks?" panel at *INFOCOM'93*
- * Organized a session “Packet-switched Lightwave Networks: Comparison of Approaches” at the *Computer Communications Workshop*, Hilton Head Island, SC, October 20-22, 1992
- * Member of *High-speed Protocols Panel* at *INFOCOM'91*, San-Francisco, CA, June 5-7, 1991

(iv) Technical Program Committees (chairing, co-chairing, and membership)

- * Member of Technical Program Committee of the *The Eighth International Conference on Ubiquitous and Future Networks (ICUFN 2016)*, July 5-8, 2016, Vienna, Austria (CFP)
- * Member of Technical Program Committee of the *4th International Conference on Connected Vehicles and Expo*, October 19-23, 2015, Shenzhen, China (CFP)
- * Member of Technical Program Committee of the *6th International Conference on Data Communication Networking (DCNET 2015)*, July 20-22, 2015, Colmar, Alsace, France
- * Member of Technical Program Committee of the *18th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (MSWiM'15)*, November 2-6, 2015, Cancun, Mexico
- * Member of Technical Program Committee of *IEEE International Conference on Advanced Technologies for Communications 2015 (ATC'15)*, October 14-16, 2015, Ho Chi Minh City, Vietnam (CFP)
- * Member of the Technical Program Committee of *IEEE 2014 Globecom, Wireless Networks Track*, December 8-12, 2014, Austin, TX
- * Member of the Technical Program Committee of the Workshop on *Security in Ad Hoc Networks (SecAN)*, Benidorm, Spain, June 22-27, 2014 (CFP)
- * Member of the Technical Program Committee of *IEEE Wireless Communications and Networking Conference, (WCNC'14) Track 3:NET*, Istanbul, Turkey, April 6-9, 2014
- * Member of the Technical Program Committee of *IEEE 5th International Congress on Ultra Modern Telecommunications and Control Systems (ICUMT 2013)*, Almaty, Kazakhstan, September 10-13, 2013
- * Member of the Technical Program Committee of *IEEE IFIP Networking 2013 Conference*, Brooklyn, New York, May 22-24, 2013 (CFP)
- * Member of the Technical Program Committee of *IEEE ICUFN 2013, Fifth International Conference on Ubiquitous and Future Networks 2013*, Da Nang, Vietnam, July 2-5, 2013 (CFP)
- * Member of Technical Program Committee of *IEEE WCNC 2013*, Shanghai, China, April 7-10, 2013 (CFP)
- * Member of Technical Program Committee of *IEEE PIMRC'12 (23rd IEEE International Symposium on Personal, Indoor and Mobile Radio Communications)*, Sidney, Australia, September 9-12, 2012 (CFP)
- * Member of the Technical Program Committee of *ACM MSWiM 2012*, Paphos, Cyprus Island, October 21-25, 2012 (CFP)
- * Member of Technical Program Committee of *ICUFN 2012* (The Fourth International Conference on Ubiquitous and Future Networks), Puket, Tailand, July 4-6, 2012 (CFP)
- * Member of Technical Program Committee of *IEEE WCNC 2012*, Track 3 Mobile and Wireless, Paris, France, April 1-4, 2012
- * Member of Technical Program Committee of *IEEE ICUMT 2011*, Budapest, Hungary, October 5-7, 2011

- * Member of Technical Program Committee of the “IEEE WCNC 2011, Network Track,” Cancun, Mexico, March 28-31, 2011
- * Member of Technical Program Committee of the “International Conference on ICT Convergence 2010 (ICTC 2010),” Jeju, Jeju Island, South Korea, Nov. 17-19, 2010
- * Member of the International Program Committee of the “IASTED Asian Conference on Robotics and Control (AsiaRC 2010),” November 24-26, 2010, Bangkok, Thailand
- * Member of the International Program Committee of the “IASTED International Conference on Robotics and Applications (RA 2010),” November 1-3, 2010, Cambridge, MA
- * Member of the Technical Program Committee of “The 16th Asia-Pacific Conference on Communications (APCC 2010),” October 31-Nov. 3, 2010, Auckland, New Zealand
- * Member of the International Program Committee (IPC) of the “IASTED International Conference on Wireless Communications (WC 2010),” July 15 – 17, 2010, Banff, Alberta, Canada
- * Member of Technical Program Committee of the “IEEE Wireless Communication and Networking Conference (WCNC 2010),” April 18-21, 2010, Sydney, Australia
- * Member of the International Technical Committee of the “IASTED International Conference on Robotics, Telematics and Applications (RTA 2009),” October 12-14, 2009, Beijing, China
- * Member of Technical Program Committee of the “IEEE Vehicular Technology Conference (VTC’09/Fall),” Anchorage, Alaska, September 20-23, 2009
- * Member of Technical Program Committee of the “IFIP Second Joint IFIP Wireless and Mobile Networking Conference (WMNC),” Gdansk, Poland, Sept. 9-11, 2009
- * Member of the International Program Committee of the “IASTED International Conference on Robotics, Telematics and Applications (RTA 2009),” October 12 – 14, 2009, Beijing, China (<http://www.iasted.org/conferences/home-661.html>)
- * Member of the Technical Program Committee of the “Fifth IEEE International Conference on Mobile Ad-hoc and Sensor Systems (IEEE MASS 2008),” Atlanta, GA, October 6-9, 2008
- * Member of the Technical Program Committee of the “27th IEEE Conference on Computer Communications (INFOCOM 2008),” Phoenix, AZ, April 13-19, 2008
- * Chair, Technical Program Committee, “Third IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS 2006),” Vancouver, Canada, October 9-12, 2006
- * Member of the Technical Program Committee of the “Third International Conference on Broadband Communications, Networks, and Systems (BROADNETS 2006),” San Jose, CA, October 1-5, 2006
- * Member of the Technical Program Committee of the “1st International Workshop on Decentralized Resource Sharing in Mobile Computing and Networking,” in conjunction with ACM MOBICOM 2006, Los Angeles, CA, September 25, 2006
- * Chair, Technical Program Committee, “First Workshop on free and commercial Wireless Mesh Networks (OpComm’2006),” Berlin, Germany, September 18-19, 2006
- * Member of the Technical Program Committee of the “26th Annual IEEE Conference on Computer Communications (INFOCOM’07),” Anchorage, Alaska, May 6-12, 2007

- * Member of the Technical Program Committee of the “*IEEE VANET Workshop*, in conjunction with the *IEEE INFOCOM 2007* conference,” May 6-12, 2007, Anchorage, AL
- * Member of the Technical Program Committee of the “*Seventh ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc’06)*,” Florence, Italy, May 22-25, 2006
- * Member of the Technical Program Committee of “*MADNES’06*,” Pythagorion, Samos, Greece, 2006
- * Technical Program Committee member of the “*2006 IEEE International Conference on Networking, Sensing and Control*,” Ft. Lauderdale, FL, April 23-25, 2006
- * Member of the Technical Program Committee of “*International Workshop on Delay Tolerant Mobile Networks (DTMN)*,” in conjunction with IWCMC 2006, Vancouver, Canada, July 3-6, 2006
- * Member of the Technical Program Committee, “*The 16th Annual IEEE International Symposium on Personal Indoor and Mobile Radio Communications (PIMRC 2005)*,” International Congress Center (ICC), Berlin, Germany, September 11-14, 2005
- * Member of the Technical Program Committee, “*The First International Workshop on Security, Privacy and Trust in Pervasive and Ubiquitous Computing (SecPerU 2005)*,” Santorini Island, Greece, July 14, 2005
- * Member of the Technical Program Committee, “*ACM MobiHoc 2005*,” Urbana-Champaign, IL, May 24-28, 2005
- * Member of the Technical Program Committee, “*MADNES’05*,” Singapore, 2005
- * Member of the Technical Program Committee, “*2004 ACM Workshop on Security of Ad Hoc and Sensor Networks (SASN 2004)*,” October 25, 2004, Wyndham City Hotel, Washington DC
- * Technical Program Committee member, “*First IEEE International Conference on Sensor and Ad hoc Communications and Networks (SECON 2004)*,” October 4-7, 2004, Santa Clara, CA
- * Technical Program Committee member of the “*Fourth Mobile Multimedia Communications Workshop (MoMuC’98)*,” Berlin, Germany, October 12-14, 1998
- * Technical Program Committee member of the “*Ninth IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC’98)*,” Boston, MA, September 8-11, 1998
- * Technical Program Committee member of the “*IEEE International Conference on Universal Personal Communications (ICUPC’98)*,” Florence, Italy, October 5-9, 1998
- * Technical Program Committee member of the “*Ninth IEEE Workshop on Local and Metropolitan Area Networks*,” Banff, Alberta, Canada, May 17-20, 1998
- * Technical Program Committee member of the “*Workshop on Nomadic Computing*,” Geneva, Switzerland, April 1-5, 1997
- * Technical Program Committee member of “*MOBICOM’97*”
- * Technical Program Committee member of “*IEEE INFOCOM’97*”
- * Technical Program Committee member of “*The Seventh IFIP Conference on High Performance Networking (HPN’97)*”
- * Technical Program Co-Chair of “*ACM MOBICOM’96*”

- * Technical Program Committee member of “*The 3rd International Workshop on Mobile Multimedia Communications (MoMuc-3)*,” Princeton, NJ, Sept. 25-27, 1996
- * Technical Program Committee member of “*The 6th IFIP International Conference on High Performance Networking (HPN'95)*,” Palma De Mallorca, Balearic Islands, Spain, September 11-15, 1995
- * Technical Program Committee member of the “*IEEE MILCOM'95*” conference
- * Technical Program Committee member of the “*IEEE PIMRC'95*” conference
- * Technical Program Committee member of the “*IEEE Wireless Computer Networks'94*” conference
- * Technical Program Committee member of the “*IEEE GLOBECOM'94*,” representing the *IEEE Personal Communication Committee*
- * Served on the Technical Program Committee of “*ACM SIGCOMM'93*”
- * Served on the Technical Program Committees of “*IEEE INFOCOM'90*,” “*IEEE INFOCOM'91*,” “*IEEE INFOCOM'92*,” “*IEEE INFOCOM '93*,” and “*IEEE INFOCOM '94*”

VI. PATENTS: GRANTED & PENDING

(i) Granted

1. [Rimon Barr, Zygmunt J. Haas, and Robbert Van Renesse, "System for and Method of Improving Discrete Event Simulation Using Virtual Machines," U.S. patent number: 7,624,383, date: November 24, 2009, assignee: Cornell Research Foundation \(D-3413\)](#)
2. [Zygmunt J. Haas and S. Sajama, "Independent-Tree Ad hoc Multicast Routing," U.S. Patent Number: 7,035,937, date: April 25, 2006, assignee: Cornell Research Foundation](#)
3. [Rung-Hung Gau and Zygmunt J. Haas, "Methods and Systems for Concurrent Paging of Mobile Users in Cellular Networks," U.S. Patent Number: 7,031,731, date: April 18, 2006, assignee: Cornell Research Foundation](#)
4. [Zygmunt J. Haas, "Routing and Mobility Management Protocols for Ad-Hoc Networks," U.S. Patent Number: 6,304,556, date: October 16, 2001, assignee: Cornell Research Foundation](#)
5. [Richard D. Gitlin, Zygmunt Haas, and Mark J. Karol, "System and Method for Optimizing Spectral Efficiency Using Time-Frequency-Code Slicing," U.S. Patent Number: 6,064,662, date: May 16, 2000, assignee: AT&T Corp.](#)
6. [Richard D. Gitlin, Zygmunt Haas, et al "System and Method for Optimizing Spectral Efficiency Using Time-Frequency-Code Slicing," U.S. Patent Number: 6,018,528, date: January 25, 2000, assignee: AT&T Corp.](#)
7. [Zygmunt J. Haas, "Multiply-Detected Macrodiversity Method and System for Wireless Communications," U.S. Patent Number: 5,774,814, date: June 30, 1998, assignee: Cornell Research Foundation](#)
8. [Zygmunt Haas and Sanjoy Paul, "Methods for Providing Secure Access to Shared Information," U.S. Patent Number: 5,719,938, date: February 17, 1998, assignee: Lucent Technologies](#)
9. [Zygmunt Haas, "Simultaneous Verify Local Database and Using Wireless Communication to Verify Remote Database," U.S. Patent Number: 5,598,534, date: January 28, 1997, assignee: Lucent Technologies](#)
10. [Zygmunt Haas and Chih-Lin I, "Beacon Based Packetized Cellular System with Real Time Processing," U.S. Patent Number: 5,577,168, date: November 19, 1996, assignee: Lucent Technologies](#)
11. [Zygmunt Haas, "Wireless Data Communications System for Detecting a Disabled Condition and Simulating a Functioning Mode in Response to Detection," U.S. Patent Number: 5,566,225, date: October 15, 1996, assignee: Lucent Technologies](#)
12. [Zygmunt Haas, "Optical Packet Synchronization Circuit," U.S. Patent Number: 5,485,298, date: January 16, 1996, assignee: AT&T Corp.](#)
13. [Zygmunt Haas, "Optical Packet Switch," U.S. Patent Number: 5,469,284, date: November 21, 1995, assignee: AT&T IPM Corp.](#)
14. [Zygmunt Haas and Mario A. Santoro, "Lightwave Transmission System Using Selected Optical Modes," U.S. Patent Number: 5,416,862, date: May 16, 1995, assignee: AT&T Corp.](#)
15. [Zygmunt Haas, et al, "Fiber-Optic Transmission Polarization-Dependent Distortion Compensation," U.S. Patent Number: 5,311,346, date: May 10, 1994, assignee: AT&T Bell Laboratories](#)

16. Richard D. Gitlin and Zygmunt Haas, [“Gigabit Per-Second Optical Packet Switching with Electronic Control,” U.S. Patent Number: 5,278,689](#), date: January 11, 1994, assignee: AT&T Bell Laboratories
17. Zygmunt Haas, [“Communications Architecture for High-speed Networking,” U.S. Patent Number: 5,115,432](#), date: May 19, 1992, assignee: AT&T Bell Laboratories
18. Zygmunt Haas, [“Photonic Local/Metropolitan Area Network,” U.S. Patent Number: 4,970,717](#), date: November 13, 1990, assignee: AT&T Bell Laboratories

(ii) Pending (in reverse order of filing dates)

1. Sriram Nandha Premnath and Zygmunt J. Haas, [“System And Method For A Practical, Secure And Verifiable Cloud Computing For Mobile Systems,” US Patent Provisional Application Number: 14/717,619](#), filing date: [May 20, 2014](#), assignees: [Cornell Research Foundation](#) and [The Board of Regents of the University of Texas System](#)
2. Richard Gitlin, Zygmunt J. Haas, Huseyin Arslan, Gabriel E. Arrobo, and Chao He, [“System and Method for User-Specific Quality of Service Scheduling in Wireless Systems,” US Patent Provisional Application Number: 62/038,868](#), filing date: [August 19, 2014](#), assignees: [University of South Florida \(14B108PR Gitlin\)](#) and [Cornell Research Foundation \(docket number D-6834\)](#)

VII. INDUSTRY COLLABORATIONS & CONSULTING

Summary of Depositions

- * Case: *Qualcomm v. Broadcom*
Retained by: *Qualcomm*
Law Firm: *Heller Eherman LLP, San Diego, CA*
Depositions: *Menlo Park, CA, January 2007*
Matter Type: *Expert witness on certain wireless communications technologies*

- * Case Number: *ITC Investigation No. 337-TA-800 (IN THE MATTER OF: CERTAIN WIRELESS DEVICES WITH 3G CAPABILITIES AND COMPONENTS THEREOF)*
Retained by: *InterDigital*
Law Firm: *Latham & Watkins, LLP*
Deposition: *December 21, 2012*
Matter Type: *Expert witness on wireless communications and wireless protocols, including CDMA technologies.*

- ◆ Case Number: *ITC Investigation No. 337-TA-868 (IN THE MATTER OF: CERTAIN WIRELESS DEVICES WITH 3G AND/OR 4G CAPABILITIES AND COMPONENTS THEREOF)*
Retained by: *InterDigital*
Law Firm: *Latham & Watkins, LLP*
Deposition: *September 21, 2013*
Matter Type: *Expert witness on wireless communications and wireless protocols, including CDMA technologies.*

- ◆ Case: *IpLearn, LLC. v. Oracle et al*
Case Number: *C.A. No. 11-825-RGA (D. Del.)*
Law Firm: *Russ, August & Kabat, LLP*
Retained by: *IpLearn*
Deposition Dates: *May 20-21, 2014*
Matter Type: *Technical consultant and expert witness on technologies related to online learning and computer-aided learning and education.*

- ◆ Cases: *IpLearn, LLC. v. K12, Inc*
Case Numbers: *C.A. No. 11-1026-RGA (D. Del.)*
Law Firm: *Russ, August & Kabat, LLP*
Retained by: *IpLearn*
Deposition Date: *June 11, 2014*
Matter Type: *Technical consultant and expert witness on technologies related to online learning and computer-aided learning and education.*

- * Cases: *InterDigital Communications, Inc. et al v. ZTE Corporation et al;*
InterDigital Communications, Inc. et al v. Nokia Corporation et al;
Case Numbers: *Dkt. No. 13-cv-00009 and 13-cv-00010*
Retained by: *InterDigital*
Law Firms: *Wilson Sosni Goodrich & Rosati and Latham & Watkins, LLC*
Deposition Dates: *June 3-4, 2014*
Matter Type: *Expert witness on wireless communications and wireless protocols, including HSPA and LTE technologies.*

- ◆ Case: *Ericsson Inc. and Telefonaktiebolaget v. Intellectual Ventures II LLC (Patent Reexamination)*
Case Numbers: *IPR2014-00915 and IPR2014-00919*
Law Firm: *Haynes and Boone, LLP*
Retained by: *Ericsson Inc.*
Deposition Date: *March 5, 2015 and July 27, 2015*
Matter Type: *Expert witness on wireless communications and wireless*

- * Cases: *InterDigital Communications, Inc. et al v. ZTE Corporation et al;*
InterDigital Communications, Inc. et al v. Nokia Corporation et al;
Case Numbers: *Dkt. No. 13-cv-00009 and 13-cv-00010*
Retained by: *InterDigital*
Law Firms: *Latham & Watkins, LLC*
Deposition Date: *March 28, 2015*
Matter Type: *Expert witness on wireless communications and wireless protocols, including HSPA and LTE technologies.*

- ◆ Case: *Ericsson Inc. and Telefonaktiebolaget v. Intellectual Ventures II LLC (Inter Partes Review)*
Case Number: *IPR 2014-01195*
Law Firm: *Haynes and Boone, LLP*
Retained by: *Ericsson Inc.*
Deposition Date: *April 9, 2015*
Matter Type: *Expert witness on wireless communications and wireless*

- ◆ Case: *Ericsson Inc. and Telefonaktiebolaget v. Intellectual Ventures II LLC (Inter Partes Review)*
Case Number: *IPR 2014-01185*
Law Firm: *Haynes and Boone, LLP*
Retained by: *Ericsson Inc.*
Deposition Date: *May 14, 2015 and September 4, 2015*
Matter Type: *Expert witness on wireless communications and wireless*

Summary of Trial Testimony

- * Case: *Qualcomm v. Broadcom*
Retained by: *Qualcomm*
Law Firm: *Heller Eherman LLP, San Diego, CA*
Court Testimony: *Markman Hearing, San Diego, CA, August 2006*
Matter Type: *Expert witness on certain wireless communications technologies*

- * Case Number: *ITC Investigation No. 337-TA-800 (IN THE MATTER OF: CERTAIN WIRELESS DEVICES WITH 3G CAPABILITIES AND COMPONENTS THEREOF)*
Retained by: *InterDigital*
Law Firm: *Latham & Watkins, LLP*
Testimony Testimony: *February 19, 2013*
Matter Type: *Expert witness on wireless communications and wireless protocols, including CDMA technologies.*

- ◆ Case Number: *ITC Investigation No. 337-TA-868 (IN THE MATTER OF: CERTAIN WIRELESS DEVICES WITH 3G AND/OR 4G CAPABILITIES AND COMPONENTS THEREOF)*
Retained by: *InterDigital*
Law Firm: *Latham & Watkins, LLP*
Testimony Testimony: *February 20, 2014*
Matter Type: *Expert witness on wireless communications and wireless protocols, including CDMA technologies.*

- * Case: *InterDigital Communications, Inc. et al v. ZTE Corporation et al;*
Case Numbers: *Dkt. No. 13-cv-00009*
Retained by: *InterDigital*
Law Firms: *Wilson Sosni Goodrich & Rosati and Latham & Watkins, LLC*
Testimony Dates: *October 21, 2014 and October 24, 2014*
Matter Type: *Expert witness on wireless communications and wireless protocols, including HSPA and LTE technologies.*

- * Case: *InterDigital Communications, Inc. et al v. ZTE Corporation et al;*
Case Numbers: *Dkt. No. 13-cv-00009*
Retained by: *InterDigital*
Law Firms: *Latham & Watkins, LLC*
Testimony Dates: *April 14, 2015, April 20-21, 2015*
Matter Type: *Expert witness on wireless communications and wireless protocols, including HSPA and LTE technologies.*