

CURRICULUM VITAE: LOUKAS LAZOS

CHRONOLOGY OF EDUCATION

- Ph.D. Aug 2006 **Electrical Engineering**
University of Washington, Seattle, WA, USA
Dissertation: “Securing Network Services for Wireless Ad Hoc and Sensor Networks”
Major field: Network Security
Advisor: Radha Poovendran
- M.S. Aug 2003 **Electrical Engineering**
University of Washington, Seattle, WA, USA
Major fields: Computer Networks and Network Security
Advisor: Radha Poovendran
- B.S. May 2000 **Electrical and Computer Engineering**
National Technical University of Athens, Athens, Greece
Thesis: “DECT Radio Coverage of the Athens Olympic Stadium”
Major fields: Digital Communications and Computer Networks
Advisor: Philippos Constantinou

CHRONOLOGY OF EMPLOYMENT

- Aug 13 – Present **Associate Professor**
Department of Electrical and Computer Engineering
University of Arizona
Tucson, AZ, USA
- Aug 07 – Jul 13 **Assistant Professor**
Department of Electrical and Computer Engineering
University of Arizona
Tucson, AZ, USA
- Oct 06 – Jul 07 **Postdoctoral Researcher**
Department of Electrical Engineering
University of Washington
Seattle, WA, USA

- Sep 01 – Aug 06 **Graduate Research Assistant**
Department of Electrical Engineering
University of Washington
Seattle, WA, USA
- Sep 00 – Jun 01 **Teaching Assistant**
Department of Electrical Engineering
University of Washington
Seattle, WA, USA
- Mar 00 – Jul 00 **Electrical Engineer**
School of Electrical and Computer Engineering
Mobile Radio-communications Laboratory
National Technical University of Athens
Athens, Greece

HONORS AND AWARDS

- National Science Foundation (NSF) CAREER Award, “Securing Channel Access in Multi-Channel Ad Hoc Networks,” 2009.

PUBLICATIONS/CREATIVE ACTIVITY (Published or Accepted)

Book Chapters (scholarly work)

- [1] **L. Lazos** and R. Poovendran, “Secure Localization for Wireless Sensor Networks using Range-Independent Methods,” in *Secure Localization and Time Synchronization for Wireless Sensor and Ad Hoc Networks*, Springer Verlag, New York, pp. 185 – 214, 2006.

Refereed Journal Publications

- [1] N. Ghose, B. Hu, Y. Zhang, and **L. Lazos**, “Secure Physical Layer Voting,” to appear in the *IEEE Transactions on Mobile Computing*, 14 pages, 2016.
- [2] Y. Zhang, **L. Lazos**, K. Chen, B. Hu, and S. Shivaramaiah, “Multi-channel Medium Access Without Control Channels: A Full Duplex MAC Design,” *IEEE Transactions on Mobile Computing (TMC)*, Vol. 16, No. 4, pp. 1032–1046, 2017.
- [3] A. Proaño, **L. Lazos**, and M. Krunz “Traffic Decorrelation Techniques for Countering a Global Eavesdropper in WSNs,” to appear in *IEEE Transactions on Mobile Computing (TMC)*, Vol. 16, No. 3, pp. 857–871, 2017.
- [4] Y. Zhang, **L. Lazos**, and W. Kozma, “AMD: Audit-based Misbehavior Detection in Wireless Ad Hoc Networks,” to appear in *IEEE Transactions on Mobile Computing (TMC)*, Vol. 15, No. 8, pp. 1893–1907, 2016.

- [5] H. Rahbari, M. Krunz, and **L. Lazos**, “Swift Jamming Attack on Frequency Offset Estimation: The Achilles’ Heel of OFDM Systems,” to appear in *IEEE Transactions on Mobile Computing (TMC)*, Vol. 15, No. 5, pp. 1264–1278, 2016.
- [6] S. Liu, **L. Lazos**, and M. Krunz, “Time-Delayed Broadcasting for Defeating Inside Jammers,” *IEEE Transactions on Dependable and Secure Computing (TDSC)*, Vol. 12, No. 3, pp. 351– 365, 2015.
- [7] Y. Zhang and **L. Lazos** “Vulnerabilities of Cognitive Radio MAC Protocols and Countermeasures,” *IEEE Network*, Vol 27, No. 3, pp. 40 – 45, 2013.
- [8] S. Liu, **L. Lazos**, and M. Krunz, “Cluster-based Control Channel Allocation in Opportunistic Cognitive Radio Networks,” *IEEE Transactions on Mobile Computing (TMC)*, Vol. 11, No. 10, pp. 1436 – 1449, 2012.
- [9] S. Liu, **L. Lazos**, and M. Krunz, “Thwarting Control-Channel Jamming Attacks from Inside Jammers,” *IEEE Transactions on Mobile Computing (TMC)*, Vol. 11, No. 9, pp. 1545 – 1558, 2012.
- [10] A. Proaño and **L. Lazos**, “Packet-Hiding Methods for Preventing Selective Jamming Attacks,” *IEEE Transactions on Dependable and Secure Computing (TDSC)*, Vol. 9, No. 1, pp. 101 – 114, 2012.
- [11] M. Bradonjić and **L. Lazos**, “Graph-based Criteria for Spectrum-aware Clustering in Cognitive Radio Networks,” *Ad Hoc Networks*, Vol. 10, No. 1, pp. 75 – 94, 2012.
- [12] **L. Lazos** and M. Krunz, “Selective Jamming/Dropping Insider Attacks in Wireless Mesh Networks,” *IEEE Network*, Vol. 25, No. 1, pp. 30 – 34, 2011.
- [13] B. Alomair, **L. Lazos**, and R. Poovendran, “Securing Low-cost RFID Systems: an Unconditionally Secure Approach,” *Journal of Computer Security (JCS)*, Vol. 19, No. 2, pp. 229 – 257, 2011.
- [14] **L. Lazos**, R. Poovendran, and J. A. Ritcey, “Analytic Evaluation of Target Detection in Heterogeneous Wireless Sensor Networks,” *ACM Transactions on Sensor Networks (TOSN)*, Vol. 5, No. 2, pp. 1 – 38, 2009.
- [15] **L. Lazos**, R. Poovendran, and J. A. Ritcey, “Detection of Mobile Targets on the Plane and in Space using Heterogeneous Sensor Networks,” *Wireless Networks (WINET)*, Vol. 15, No. 5, pp. 667 – 690, 2009.
- [16] J. Salido, **L. Lazos**, and R. Poovendran, “Energy and Bandwidth-Efficient Key Distribution in Wireless Ad-Hoc Networks: A Cross-Layer Approach,” *IEEE/ACM Transactions on Networking (TON)*, Vol. 15, No. 6, pp. 1527 – 1540, 2007.
- [17] R. Poovendran and **L. Lazos**, “A Graph Theoretic Framework for Preventing the Wormhole Attack in Wireless Ad Hoc Networks,” *Wireless Networks (WINET)*, Vol. 13, No. 1, pp. 27 – 59, 2007.

- [18] **L. Lazos** and R. Poovendran, “Power Proximity Based Key Management for Secure Multicast in Ad Hoc Networks,” *Wireless Networks (WINET)*, Vol. 13, No. 1, pp. 127 – 148, 2007.
- [19] **L. Lazos** and R. Poovendran, “Stochastic Coverage in Heterogeneous Sensor Networks,” *ACM Transactions on Sensor Networks (TOSN)*, Vol. 2, No. 3, pp. 325 – 358, 2006.
- [20] **L. Lazos** and R. Poovendran, “High Resolution Localization for Wireless Sensor Networks,” *IEEE Journal on Selected Areas in Communications (JSAC), Special Issue on Network Security*, Vol. 24, No. 2, pp. 233 – 246, 2006.
- [21] **L. Lazos** and R. Poovendran, “SeRLoc: Robust Localization for Wireless Sensor Networks,” *ACM Transactions on Sensor Networks (TOSN)*, Vol. 1, No. 1, pp. 73 – 100, 2005.

Refereed Conference/Symposium/Workshop Publications

- [1] N. Ghose, **L. Lazos**, and M. Li, “HELP: Helper-Enabled In-Band Device Pairing Resistant Against Signal Cancellation”, *26th USENIX Security Symposium*, 2017.
- [2] S. Lu, R. Lysecky, and **L. Lazos**, “FEAL: Fine-Grained Evaluation of Active Learning in Collaborative Learning Spaces,” *ASEE Annual Conference & Exposition*, 2017.
- [3] S. Shivaramaiah, G. Calis, , O. Koyluogly, and **L. Lazos**, “Threshold-based File Maintenance Strategies for Mobile Cloud Storage Systems,” to appear in *Proceedings of the IEEE Global Communications Conference, Exhibition and Industry Forum (GLOBECOMM)*, 2016.
- [4] N. Ghose and **L. Lazos**, “Verifying ADS-B Navigation Information Through Doppler Shift Measurements,” in *Proceedings of the 34th IEEE/AIAA Digital Avionics Systems Conference (DASC)*, 11 pages, 2015, DOI: 10.1109/DASC.2015.7311412 (**2nd place best graduate student paper award**).
- [5] B. Hu, Y. Zhang, and **L. Lazos**, “PHYVOS: Physical Layer Voting for Secure and Fast Cooperation,” in *Proceedings of the IEEE Conference on Communications and Network Security (CNS)*, 9 pages, 2015, DOI: 10.1109/CNS.2015.7346834.
- [6] J. J. Fowler, T. Johnson, P. Simonetto, M. Schneider, C. Acedo, S. Kobourov, and **L. Lazos**, “IMap: Visualizing Network Activity over Internet Maps,” *Proceedings of the 11th Workshop on Visualization for Cyber Security (VIZSEC)*, pp. 80 – 87, 2014.
- [7] T. Johnson and **L. Lazos**, “Network Anomaly Detection Using Autonomous System Flow Aggregates,” in *Proceedings of the IEEE Global Communications Conference, Exhibition and Industry Forum (GLOBECOMM)*, pp. 544 – 560, 2014.
- [8] Y. Zhang, **L. Lazos**, K. Chen, B. Hu, and S. Shivaramaiah, “FD-MMAC: Combating Multi-Channel Hidden and Exposed Terminals Using a Single Transceiver,” in *Proceedings of the IEEE International Conference on Computer Communications (INFOCOM)*, pp. 2742 – 2750, 2014.

- [9] H. Rahbari, M. Krunz, and **L. Lazos**, “Security Vulnerability and Countermeasures of Frequency Offset Correction in 802.11a Systems,” in *Proceedings of the IEEE International Conference on Computer Communications (INFOCOM)*, pp. 1015 – 1023, 2014.
- [10] Q. Zhang and **L. Lazos**, “Collusion-Resistant Query Anonymization for Location-Based Services,” in *Proceedings of the IEEE International Conference on Communications (ICC)*, pp. 768 – 774, 2014.
- [11] Y. Zhang and **L. Lazos**, “Countering Selfish Misbehavior in Multi-channel MAC Protocols,” in *Proceedings of the IEEE International Conference on Computer Communications (INFOCOM)*, pp. 2787 – 2795, 2013.
- [12] A. Proaño and **L. Lazos**, “Perfect Contextual Information Privacy in WSNs under Colluding Eavesdroppers,” in *Proceedings of the 6th ACM Conference on Wireless Network Security (WiSec)*, pp. 89 – 94, 2013.
- [13] **L. Lazos**, S. Liu, and M. Krunz, “Thwarting Inside Jamming Attacks on Wireless Broadcast Communications,” in *Proceedings of the 4th ACM Conference on Wireless Network Security (WiSec)*, pp. 29 – 40, 2011.
- [14] A. Proaño and **L. Lazos**, “Selective Jamming Attacks in Wireless Networks,” in *Proceedings of the IEEE International Conference on Communications (ICC)*, pp. 1 – 6, 2010.
- [15] B. Alomair, **L. Lazos**, and R. Poovendran, “Securing Low-Cost RFID Systems: An Unconditionally Secure Approach,” in *Proceedings of the 6th International Workshop on RFID Security (RFIDsec)*, pp. 1 – 17, 2010.
- [16] W. Kozma and **L. Lazos**, “Dealing with Liars: Misbehavior Identification Based on Rényi-Ulam Games,” in *Proceedings of the 5th International ICST Conference on Security and Privacy in Communication Networks (SecureComm)*, pp. 207 – 227, 2009.
- [17] **L. Lazos**, S. Liu, and M. Krunz, “Spectrum Opportunity-Based Control Channel Assignment in Cognitive Radio Networks,” in *Proceedings of the 6th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON)*, pp. 1 – 9, 2009.
- [18] **L. Lazos**, S. Liu, and M. Krunz, “Mitigating Control Channel Attacks in Multi-channel Ad-Hoc Networks,” in *Proceedings of the 2nd ACM Conference on Wireless Network Security (WiSec)*, pp. 169 – 180, 2009.
- [19] W. Kozma and **L. Lazos**, “REAct: Resource-Efficient Accountability for Node Misbehavior in Ad Hoc Networks based on Random Audits,” in *Proceedings of the 2nd ACM Conference on Wireless Network Security (WiSec)*, pp. 103 – 110, 2009.
- [20] W. Kozma and **L. Lazos**, “Reactive Identification of Misbehavior in Ad Hoc Networks Based on Random Audits,” in *Proceedings of the 5th Annual IEEE Communications Society Conference on Sensor, Mesh, and Ad Hoc Communications and Networks (SECON)*, pp. 612 – 614, 2008.

- [21] B. Alomair, **L. Lazos**, and R. Poovendran, “Passive Attacks on a Class of Authentication Protocols for RFID,” in *Proceedings of the International Conference on Information Security and Cryptology (ICISC)*, pp. 102 – 115, 2007.
- [22] **L. Lazos**, R. Poovendran, and J. A. Ritcey, “Probabilistic Detection of Mobile Targets in Heterogeneous Sensor Networks,” in *Proceedings of the 6th International Symposium on Information Processing in Sensor Networks (IPSN)*, pp. 519 – 528, 2007.
- [23] **L. Lazos**, R. Poovendran, and J. A. Ritcey, “On the Deployment of Heterogeneous Sensor Networks for Detection of Mobile Targets,” in *Proceedings of the 5th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt)*, pp. 1 – 10, 2007.
- [24] **L. Lazos** and R. Poovendran, “Coverage in Heterogeneous Sensor Networks,” in *Proceedings of the 4th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt)*, pp. 1 – 10, 2006.
- [25] **L. Lazos**, R. Poovendran, C. Meadows, P. Syverson, and L. W. Chang, “Preventing Wormhole Attacks on Wireless Ad Hoc Networks: A Graph Theoretic Approach,” in *Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC)*, Vol. 2, pp. 1193 – 1199, 2005.
- [26] **L. Lazos**, S. Čapkun, and R. Poovendran, “ROPE: Robust Position Estimation in Wireless Sensor Networks,” in *Proceedings of the 4th International Symposium on Information Processing in Sensor Networks (IPSN)*, pp. 324 – 331, 2005.
- [27] **L. Lazos** and R. Poovendran, “SeRLoc: Secure Range-Independent Localization for Wireless Sensor Networks,” in *Proceedings of the ACM Workshop on Wireless Security (WiSe)*, pp. 21 – 30, 2004.
- [28] **L. Lazos**, J. Salido, and R. Poovendran, “VP3: Using Vertex Path and Power Proximity for Energy Efficient Key Distribution,” in *Proceedings of the IEEE Vehicular Technology Conference (VTC)*, pp. 1228 – 1232, 2004.
- [29] **L. Lazos** and R. Poovendran, “Cross-Layer Design for Energy-Efficient Secure Multicast Communications in Ad Hoc Networks,” in *Proceedings of the IEEE International Conference on Communications (ICC)*, Vol. 6, pp. 3633 – 3639, 2004.
- [30] **L. Lazos** and R. Poovendran, “Energy-Aware Secure Multicast Communication in Ad-hoc Networks Using Geographic Location Information,” in *Proceedings of the IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP)*, Vol. 4, pp. 201 – 204, 2003.
- [31] **L. Lazos** and R. Poovendran, “Secure Broadcast in Energy-Aware Wireless Sensor Networks,” in *Proceedings of the IEEE International Symposium on Advances in Wireless Communications (ISWC)*, pp. 151 – 152, 2002.

Non-Refereed Conference/Symposium/Workshop Publications

- [1] A. Proaño and **L. Lazos**, “Hiding Contextual Information in WSNs,” in *Proceedings of the 3rd IEEE International Workshop on Data Security and Privacy in Wireless Networks (D-SPAN)*, 6 pages, 2012, (Invited paper).
- [2] S. Chandrashekar and **L. Lazos**, “A Primary User Authentication System for Mobile Cognitive Radio Networks,” in *Proceedings of the 3rd International Workshop on Cognitive Radio and Advanced Spectrum Management (COGART)*, 5 pages, 2011, (Invited paper).

Pending Submissions

- [1] Y. Zhang and **L. Lazos** “Misbehavior in Multi-channel MAC Protocols,” submitted to *IEEE Transactions on Dependable and Secure Computing (TDSC)*, 14 pages, 2016.

RESEARCH GRANTS AND CONTRACTS

EXTERNALLY FUNDED GRANTS

- Title: “SpecEES: Secure and Fair Spectrum Sharing for Heterogeneous Coexistent Systems”
PIs: Loukas Lazos (PI), Marwan Krunz (co-PI), and Ming Li (co-PI)
Sponsor: National Science Foundation (NSF)
Dates: 10/01/2017 – 09/30/2020
Responsibility: 33%
Total Award Amount: \$600,000
- Title: “TWC: Medium: Leakage of Communications Signatures: Analysis of Eavesdropping Attacks and Proactive Countermeasures”
PIs: Marwan Krunz (PI) and Loukas Lazos (co-PI)
Sponsor: National Science Foundation (NSF)
Dates: 10/01/2014 – 09/30/2018
Responsibility: 50%
Total Award Amount: \$660,000
- Title: “Blinding Eve: Methods for Concealing Wireless Communications in Mobile Coalitions”
PIs: Marwan Krunz (PI) and Loukas Lazos (co-PI)
Sponsor: Army Research Office (ARO)
Dates: 08/01/2013 – 07/30/2016
Responsibility: 50%
Total Award Amount: \$459,998
- Title: “Putting Network Security on the Map: Visualizing Network Security with a Unified Map Metaphor (Phase II)”
PIs: Stephen Kobourov (PI), Christian Collberg (co-PI), Loukas Lazos (co-PI), and Srinivasan Ramasubramanian (co-PI)

- Sponsor: Office of Naval Research (ONR)
 Dates: 03/27/2012 – 09/30/2015
 Responsibility: 25%
 Total Award Amount: \$3,558,298
- Title: “EAGER: Human-centric Predictive Analytics of Cyber-threats: a Temporal Dynamics Approach”
 PIs: Brinton Milward (PI), Ronald Breiger (co-PI), Loukas Lazos (co-PI), and Jerzy Rozenblit (co-PI)
 Sponsor: National Science Foundation (NSF)
 Dates: 09/01/2013 – 08/31/2015
 Responsibility: 25%
 Total Award Amount: \$200,000
 - Title: “CAREER: Securing Channel Access in Multi-Channel Ad Hoc Networks”
 PI: Loukas Lazos
 Sponsor: National Science Foundation (NSF)
 Dates: 09/01/2009 – 08/31/2014
 Responsibility: 100%
 Total Award Amount: \$405,000
 - Title: “TC: Small: Enemies from Within: Thwarting Sophisticated Insider Attacks in Wireless Networks”
 PIs: Loukas Lazos (PI) and Marwan Krunz (co-PI)
 Sponsor: National Science Foundation (NSF)
 Dates: 07/15/2010 – 06/30/2014
 Responsibility: 50%
 Total Award Amount: \$499,534
 - Title: “EAGER: Man-at-the-End Attacks: Defenses and Evaluation Techniques”
 PIs: Christian Collberg (PI), Saumya Debray (Co-PI), and Loukas Lazos (Co-PI)
 Role: Co-PI
 Sponsor: National Science Foundation (NSF)
 Dates: 09/01/2011 – 08/31/2014
 Responsibility: 33%
 Total Award Amount: \$285,649
 - Title: “Putting Network Security on the Map: Visualizing Network Security with a Unified Map Metaphor (Phase I)”
 PIs: Stephen Kobourov (PI), Christian Collberg (co-PI), Loukas Lazos (co-PI), and Srinivasan Ramasubramanian (co-PI)
 Sponsor: Office of Naval Research (ONR)
 Dates: 02/25/2011 – 10/25/2011
 Responsibility: 25%
 Total Award Amount: \$363,751

- Title: “Secure Opportunistic Spectrum Access in Cognitive Radio Networks”
 PIs: Loukas Lazos (PI) and Marwan Krunz (co-PI)
 Sponsor: National Science Foundation (NSF): I/UCRC Communication Circuits and System Research Center
 Dates: 08/01/2008 – 07/30/2009
 Responsibility: 50%
 Total Award Amount: \$60,000

INTERNALLY FUNDED GRANTS

- Title: “Exploiting Nanomaterials for End-to-End Cybersecurity Solutions- Phase II”
 PIs: Bertrand Cambou (PI), Michael Kozick (co-PI) Loukas Lazos (co-PI)
 Sponsor: Arizona Board of Regents
 Dates: 07/01/2017 – 01/31/2019
 Responsibility: 33%
 Total Award Amount: \$500,000
- Title: “Exploiting Nanomaterials for End-to-End Cybersecurity Solutions - Phase I”
 PIs: Bertrand Cambou (PI), Michael Kozick (co-PI) Loukas Lazos (co-PI)
 Sponsor: Arizona Board of Regents
 Dates: 07/01/2016 – 01/31/2018
 Responsibility: 33%
 Total Award Amount: \$500,000

SELECTED INVITED TALKS AND SEMINARS

Keynote/Panel Presentations

- L. Lazos, *Panel title*: “Privacy in Future Computation and Communication Platforms,” *6th IEEE WoWMoM Workshop on Autonomic and Opportunistic Communications (AOC) and 3rd IEEE International Workshop on Data Security and PrivAcy in Wireless Networks (D-SPAN)*, San Francisco, CA, Jun. 2012.
- L. Lazos, *Keynote title*: “Securing Channel Access in Wireless Ad Hoc Networks,” *1st Workshop on Security of Autonomous and Spontaneous Networks (SETOP)*, Loctudy, France, Oct. 2008.

Invited Seminars

- Coordinating Multi-user Wireless Access without Control Channels, UCN@Sophia Labex Seminar, Eurecom, Nice, France, Feb. 2015.
- Jam Me if You Can: Mitigating the Impact of Inside Jammers, The Center for Education and Research on Information Assurance and Security (CERIAS) Seminar, Purdue University, West Lafayette, IN, Nov. 2011.

- Jam Me if You Can: Mitigating the Impact of Inside Jammers, Computer Science Department Lecturer Series Seminar, University of California, Irvine (UCI), Irvine, CA, Oct. 2011.
- Assignment and Protection of Control Channels in Cognitive Radio Networks, IEEE Seminar, National Technical University of Athens, Greece, Jan. 2010.
- Dealing with Liars: Misbehavior Identification via Rényi-Ulam Games, Computer Science Research Colloquium, The University of Arizona, Tucson, AZ, Oct. 2009.
- Enabling Secure Coordination of Cyber-Physical Systems, Army Research Office Workshop on Cyber-Physical Systems Security, Seattle, WA, Aug. 2009.
- Securing Spectrum Access in Cognitive Radio Networks, NSF: I/UCRC Communication Circuits and System Research Center (Connection One) Semi-Annual Meeting, San Diego, CA, May 2009.
- Securing Opportunistic Spectrum Access in Cognitive Radio Networks, NSF: I/UCRC Communication Circuits and System Research Center (Connection One) Semi-Annual Meeting, Scottsdale, AZ, Jan. 2009.
- Analytical Evaluation of Coverage and Target Detection in Heterogeneous Wireless Sensor Networks, Systems and Industrial Engineering Seminar, The University of Arizona, Tucson, AZ, Nov. 2007.

PROFESSIONAL SERVICE

Editorships:

- Associate Editor: IEEE Transactions on Information Forensics and Security.
- Associate Editor: IEEE Transactions on Mobile Computing.

General Chair and Program Chair:

- TPC Co-Chair, IEEE Conference on Communications and Network Security (IEEE CNS' 18), Beijing, China, 2018.
- Area TPC Chair, IEEE Conference on Communications and Network Security (IEEE CNS' 17), Las Vegas, USA, 2017.
- Area TPC Chair, IEEE Conference on Communications and Network Security (IEEE CNS' 14), San Francisco, USA, 2014.
- TPC Co-chair, IEEE Global Communications Conference, Exhibition, and Industry Forum (GLOBECOM' 13), Communications and Information Systems Security Symposium, Atlanta, GA, USA, 2013.

- TPC Co-chair, IEEE International Workshop on Data Security and Privacy in Wireless Networks (D-SPAN'13), Madrid, Spain, 2013.
- General Co-chair, ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec'12), Tucson, AZ, USA, 2012.

Executive Committee:

- Workshop Chair, IEEE Conference on Communications and Network Security (IEEE CNS'17), Las Vegas, USA, 2017.
- Poster Chair, IEEE Conference on Communications and Network Security (IEEE CNS'16), Philadelphia, USA, 2016.
- Poster Chair, IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS'12), Hangzhou, China, 2012.
- Publicity Chair, ACM Conference on Wireless Network Security (WiSec'09), Zurich, Switzerland, 2009.
- Website Chair, International ICST Conference on Broadband Communications, Networks, and Systems (BROADNETS'09), Madrid, Spain, 2009.

Technical Program Committee:

- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec'17), Boston, USA, 2017.
- ACM Asia Conference on Computer and Communications Security (ASIACCS) Abu Dhabi, UAE, 2017.
- IEEE GLOBECOM, Singapore, 2017.
- IEEE ICC, Kuala Lumpur, Malaysia, 2016.
- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec'16), Darmstadt, Germany, 2016.
- IEEE ICC, London, UK, 2015.
- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec'15), New York, USA, 2015.
- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec'14), Oxford, UK, 2014.
- IEEE ICC, Sydney, Australia, 2014.

- International Symposium on Algorithms and Experiments for Sensor Systems, Wireless Networks and Distributed Robotics (ALGOSENSORS' 14), Wroclaw, Poland, 2014.
- IEEE International Conference on Computing, Networking, and Communications (ICNC' 13), San Diego, USA, 2013.
- IEEE ICC, Budapest, Hungary, 2013.
- IEEE GLOBECOM, Anaheim, USA, 2012.
- IEEE International Conference on Computing, Networking, and Communications (ICNC' 12), Honolulu, USA, 2012.
- International Conference on Security and Cryptography (SECRYPT' 12), Rome, Italy, 2012.
- IEEE International Workshop on Data Security and Privacy in Wireless Networks (D-SPAN' 12), San Francisco, USA, 2012.
- ACM Conference on Wireless Network Security (WiSec' 11), Hamburg, Germany, 2011.
- International Conference on Cryptography and Network Security (CANS' 11), Sanya, China, 2011.
- IEEE ICC, Kyoto, Japan, 2011.
- IEEE GLOBECOM, Houston, USA, 2011.
- International ICST Conference on Security and Privacy in Communication Networks (SecureComm' 11), London, UK, 2011.
- IEEE International Workshop on Data Security and Privacy in Wireless Networks (D-SPAN' 11), Washington DC, USA, 2011.
- ACM Conference on Wireless Network Security (WiSec' 10), New Jersey, USA, 2010.
- International Conference on Computer Communications and Networks (ICCCN' 10), Zurich, Switzerland, 2010.
- IEEE GLOBECOM, Miami, USA, 2010.
- IEEE ICC, Cape Town, South Africa, 2010.
- IEEE International Workshop on Data Security and Privacy in Wireless Networks (D-SPAN' 10), Washington DC, USA, 2010.
- IEEE INFOCOM, Rio De Janeiro, Brasil, 2009.
- International Conference on Computer Communications and Networks (ICCCN'09), San Francisco, USA, 2009.
- International ICST Conference on Security and Privacy in Communication Networks (SecureComm'09), Athens, Greece, 2009.

- ACM Conference on Wireless Network Security (WiSec'09), Zurich, Switzerland, 2009.
- International Conference on Multimedia Information Networking (MINES'09), Hubei, China, 2009.
- International Workshop on Autonomous and Spontaneous Security (SeTop'09), St. Malo, France, 2009.
- IEEE International Conference on Wireless and Mobile Computing, Networking, and Communications (WiMob'09), Marrakech, Morocco, 2009.
- IEEE INFOCOM, Phoenix, USA, 2008.
- ACM Conference on Wireless Network Security (WiSec'08), Alexandria, USA, 2008.
- IEEE International Conference on Wireless and Mobile Computing, Networking, and Communications (WiMob'08), Avignon, France, 2008.
- International Conference on Communications and Networking in China (ChinaCom'08), Hangzhou, China, 2008.
- International Conference on Communications and Networking in China (ChinaCom'07), Shanghai, China, 2007.
- European Workshop on Security and Privacy in Ad hoc and Sensor Networks (ESAS), Cambridge, UK, 2007.

Session Chair:

- ACM Conference on Wireless Network Security (WiSec'11), Hamburg, Germany, 2011.
- IEEE ICC, Cape Town, South Africa, 2010.
- IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON'09), Rome, Italy, 2009.
- ACM Conference on Wireless Network Security (WiSec'09), Zurich, Switzerland, 2009.
- International ICST Conference on Security and Privacy in Communication Networks (SecureComm'09), Athens, Greece, 2009.
- IEEE INFOCOM, Anchorage, USA, 2007.
- International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt), Boston, USA, 2007.

Referee

- IEEE/ACM Transactions on Networking (TNET).
- IEEE Transactions on Mobile Computing (TMC).
- IEEE Transactions on Information Theory (TIT).
- IEEE Transactions on Dependable and Secure Computing (TDSC).
- IEEE Transactions on Wireless Communications (TWC).
- IEEE Journal on Selected Areas in Communications (JSAC).
- IEEE Transactions on Signal Processing (TSP).
- IEEE Transactions on Information Forensics and Security (TIFS).
- IEEE Transactions on Vehicular Technology (TVT).
- IEEE Transactions on Computers (TC).
- IEEE Communication Letters (COMML).
- IEEE Wireless Communications Magazine (WCM).
- Proceedings of the IEEE (PIEEE).
- ACM Transactions on Sensor Networks (TOSN).
- ACM Wireless Networks (WCN).
- ACM Transactions on Information and System Security (TISSEC).
- Mobile Computing and Communications Review (MC2R).
- Elsevier Computer Networks (COMNET).
- Elsevier Computer Communications (COMCOM).
- Elsevier Ad Hoc Networks (ADHOC).
- Wireless Personal Communications (WPC).
- Arabian Journal for Science and Engineering (AJSE).
- 31st IEEE International Conference on Computer Communications (INFOCOM), 2012.
- IEEE Aerospace Conference, 2011.
- 5th International Conference on Mathematical Methods, Models, and Architectures for Computer Network Security (MMM-ACNS), 2010.
- 50th Annual IEEE Symposium on Foundations of Computer Science (FOCS), 2009.

Proposal Review Panels

- National Science Foundation (NSF)
Computer and Information Science and Engineering (CISE)
October 2017
- National Science Foundation (NSF)
Computer and Information Science and Engineering (CISE)
May 2017
- National Science Foundation (NSF)
Computer and Information Science and Engineering (CISE)
April 2017
- National Science Foundation (NSF)
Computer and Information Science and Engineering (CISE)
December 2016
- National Science Foundation (NSF)
Computer and Information Science and Engineering (CISE)
February 2016
- National Science Foundation (NSF)
Computer and Information Science and Engineering (CISE)
May 2012
- Global Environment for Network Innovations (GENI) Project Office
April 2009
- National Science Foundation (NSF)
Computer and Information Science and Engineering (CISE)
December 2009
- National Science Foundation (NSF)
Computer and Information Science and Engineering (CISE)
November 2009

DEPARTMENT, COLLEGE, AND UNIVERSITY SERVICE

- Member, ECE Executive Committee, 2016 – present.
- Member, Peer Review Committee, 2015 – present.
- Member, ECE Committee on Committees, 2012 – 2015.
- Member, ECE Graduate Studies Committee, 2012 – 2014.

- Member, ECE Graduate Student Recruitment and Award Committee, 2008 – 2010, 2011 – 2013.
- Member, ECE Undergraduate Studies Committee, 2010 – 2011.
- Member, Computer Policy Committee, 2010 – 2011.

SUPERVISED POSTDOCS, DISSERTATIONS, AND THESIS

Supervised Postdoctoral Researchers

- Joe Fowler, co-advised with Stephen Kobourov (2011 – 2015).
- Thienne Johnson, co-advised with Stephen Kobourov (2011 – 2015).
- Paolo Simonetto, co-advised with Stephen Kobourov (2013 – 2015).

Supervised PhD Dissertations

- [1] Yan Zhang, Ph.D. in Aug. 2015.
Dissertation title: Secure and Spectrally-Efficient Channel Access in Multi-channel Wireless Networks.
- [2] Alejandro Proaño, Ph.D. in Aug. 2015.
Dissertation title: Privacy of Contextual Information in Wireless Sensor Networks.
- [3] Sisi Liu, Ph.D. in Dec. 2011
Dissertation title: Securing Wireless Broadcast Communication Against Internal Attacks (co-advised with Prof. Marwan Krunz).

Supervised MS Theses

- [1] Carlos Acedo, M.S., in Oct 2015.
Thesis title: Evolution of the Internet Topology from a Regional Perspective.
- [2] Bocan Hu, M.S., in Aug. 2015.
Thesis title: Physical Layer Voting For Secure And Fast Cooperation.
- [3] Swetha Shivaramaiah, in Jun. 2015.
Thesis title: Threshold-based Repair Strategies for Mobile Distributed Storage Systems.
- [4] Swathi Chandrashekar, M.S. in Mar. 2012.
Thesis title: Primary User Authentication Methods for Mobile Cognitive Radio Networks.
- [5] Qin Zhang, M.S. in Dec. 2011.
Thesis title: Privacy-preserving Communication Protocols for Authenticated Location-based Services in Mobile Networks.

- [6] Yu Zhang, M.S. in Sep. 2011.
Thesis title: Detection and Isolation of Packet Droppers in Wireless Ad-hoc Networks.
- [7] Alejandro Proaño, M.S. in Nov. 2010.
Thesis title: Selective Jamming Attacks in Wireless Networks.
- [8] William Jr. Kozma, M.S. in Apr. 2009.
Thesis title: Resource-efficient Misbehavior Identification in Wireless Ad Hoc Networks,.