

CURRICULUM VITAE

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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 fields: network security, wireless communications, computer networks
Advisor: Radha Poovendran
- M.S. Aug 2003 **Electrical Engineering**
University of Washington, Seattle, WA, USA
Major fields: network security, wireless communications, computer networks
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, 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.

AWARDED GRANTS AND CONTRACTS

Federal

1. Title: “In-band Wireless Trust Establishment Resistant to Advanced Signal Manipulations”
 PIs: Ming Li and Loukas Lazos
 Role: Co-Principal Investigator
 Sponsor: Army Research Office (ARO)
 Dates: 12/1/2018 – 11/31/2021
 Responsibility: 50%
 Total Award Amount: \$500,000
2. Title: “SaTC: CORE: Small: Secure Cloud Storage Verification Methods”
 PIs: Loukas Lazos, Marwan Krunz, and Bane Vasic
 Role: Principal Investigator
 Sponsor: National Science Foundation (NSF)
 Dates: 15/08/2018 – 14/08/2021
 Responsibility: 33%
 Total Award Amount: \$500,000
3. Title: “SpecEES: Secure and Fair Spectrum Sharing for Heterogeneous Coexistent Systems”
 PIs: Loukas Lazos, Marwan Krunz, and Ming Li
 Role: Principal Investigator

- Sponsor: National Science Foundation (NSF)
Dates: 10/01/2017 – 09/30/2020
Responsibility: 33%
Total Award Amount: \$600,000
4. Title: “TWC: Medium: Leakage of Communications Signatures: Analysis of Eavesdropping Attacks and Proactive Countermeasures”
PIs: Marwan Krunz and Loukas Lazos
Role: Co-Principal Investigator
Sponsor: National Science Foundation (NSF)
Dates: 10/01/2014 – 09/30/2019
Responsibility: 50%
Total Award Amount: \$660,000
 5. Title: “Blinding Eve: Methods for Concealing Wireless Communications in Mobile Coalitions”
PIs: Marwan Krunz and Loukas Lazos
Role: Co-Principal Investigator
Sponsor: Army Research Office (ARO)
Dates: 08/01/2013 – 07/30/2016
Responsibility: 50%
Total Award Amount: \$459,998
 6. Title: “Putting Network Security on the Map: Visualizing Network Security with a Unified Map Metaphor (Phase II)”
PIs: Stephen Kobourov, Christian Collberg, and Loukas Lazos
Role: Co-Principal Investigator
Sponsor: Office of Naval Research (ONR)
Dates: 03/27/2012 – 09/30/2015
Responsibility: 33%
Total Award Amount: \$3,558,298
 7. Title: “EAGER: Human-centric Predictive Analytics of Cyber-threats: a Temporal Dynamics Approach”
PIs: Brinton Milward, Ronald Breiger, Loukas Lazos, and Jerzy Rozenblit
Role: Co-Principal Investigator
Sponsor: National Science Foundation (NSF)
Dates: 09/01/2013 – 08/31/2015
Responsibility: 25%
Total Award Amount: \$200,000
 8. Title: “TC: Small: Enemies from Within: Thwarting Sophisticated Insider Attacks in Wireless Networks”
PIs: Loukas Lazos (PI) and Marwan Krunz (co-PI)
Role: Principal Investigator
Sponsor: National Science Foundation (NSF)

Dates: 07/15/2010 – 06/30/2014
Responsibility: 50%
Total Award Amount: \$499,534

9. Title: “EAGER: Man-at-the-End Attacks: Defenses and Evaluation Techniques”
PIs: Christian Collberg, Saumya Debray, and Loukas Lazos
Role: Co-Principal Investigator
Sponsor: National Science Foundation (NSF)
Dates: 09/01/2011 – 08/31/2014
Responsibility: 33%
Total Award Amount: \$285,649
10. Title: “CAREER: Securing Channel Access in Multi-Channel Ad Hoc Networks”
PI: Loukas Lazos
Role: Principal Investigator
Sponsor: National Science Foundation (NSF)
Dates: 09/01/2009 – 08/31/2014
Responsibility: 100%
Total Award Amount: \$405,000

State

11. Title: “Exploiting Nanomaterials for End-to-End Cybersecurity Solutions- Phase II”
PIs: Bertrand Cambou, Michael Kozicki, and Loukas Lazos
Role: Co-Principal Investigator
Sponsor: Arizona Board of Regents
Dates: 02/01/2018 – 12/31/2018
Responsibility: 33%
Total Award Amount: \$500,000
12. Title: “Exploiting Nanomaterials for End-to-End Cybersecurity Solutions - Phase I”
PIs: Bertrand Cambou, Michael Kozicki, Loukas Lazos
Role: Co-Principal Investigator
Sponsor: Arizona Board of Regents
Dates: 07/01/2016 – 01/31/2017
Responsibility: 33%
Total Award Amount: \$500,000
13. Title: “FEAL: Fine-Grained Evaluation of Active Learning in Collaborative Learning Spaces?”
PIs: Roman Lysecky, Loukas Lazos
Role: Co-Principal Investigator
Sponsor: Sub-award of the University of Arizona AAU Undergraduate STEM Education Project funded by the Helmsley Trust
Dates: 05/01/16 – 12/31/16
Responsibility: 50% Total Award Amount: \$24,130

PUBLICATIONS/CREATIVE ACTIVITY (Published or Accepted)

Chapters in Scholarly Books and Monographs

- [1] G. D. Burd, D. J. GD, Tomanek, P. Blowers, MS Bolger, J. Cox, LK. Elfring, E. A. Grubbs, J. Hunter, K. A. Johns, L. Lazos, R. L. Lysecky, J. A. Milsom, I. Novodvorsky, J. R. Pollard, E. E. Prather, V. A. Talanquer, R. Thamvichai, H. S. Tharp, and C. Wallace. “Developing Faculty Cultures for Evidence-based Teaching Practices in STEM: A Progress Report”. In: *Transforming Institutions: 21st Century Undergraduate STEM*. West Lafayette, IN.: Purdue University Press; 2016.
- [2] G. D. Burd, D. J. GD, Tomanek, P. Blowers, MS Bolger, J. Cox, LK. Elfring, E. A. Grubbs, J. Hunter, K. A. Johns, L. Lazos, R. L. Lysecky, J. A. Milsom, I. Novodvorsky, J. R. Pollard, E. E. Prather, V. A. Talanquer, R. Thamvichai, H. S. Tharp, and C. Wallace. “Developing Faculty Cultures for Evidence-based Teaching Practices in STEM: A Progress Report”. In: *Transforming Institutions: 21st Century Undergraduate STEM*. West Lafayette, IN.: Purdue University Press; 2015.
- [3] G. D. Burd, D. J. GD, Tomanek, P. Blowers, MS Bolger, J. Cox, LK. Elfring, E. A. Grubbs, J. Hunter, K. A. Johns, L. Lazos, R. L. Lysecky, J. A. Milsom, I. Novodvorsky, J. R. Pollard, E. E. Prather, V. A. Talanquer, R. Thamvichai, H. S. Tharp, and C. Wallace. “Developing Faculty Cultures for Evidence-based Teaching Practices in STEM: A Progress Report”. In: *Transforming Institutions: 21st Century Undergraduate STEM*. West Lafayette, IN.: Purdue University Press; 2014.
- [4] *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

All publications listed below are peer-reviewed.

- [1] S. Liu and L. Lazos, “Proofs of Physical Reliability for Cloud Storage Systems,” *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, 18 pages, 2019, early access DOI: 10.1109/TPDS.2019.2958919
- [2] G. Calis, S. Shivaramaiah, O. O. Koyluoglu, and L. Lazos, “Repair Strategies for Mobile Storage Systems,” accepted for publication, *IEEE Transactions on Cloud Computing (TCC)*, 16 pages, 2019, early access DOI: 10.1109/TCC.2019.2914436.
- [3] A. M. Salama, M. Li, L. Lazos, Y. Xiao, and M. Krunz “Trading Privacy for Utility in Database-assisted Dynamic Spectrum Access,” accepted for publication, *IEEE Transactions on Cognitive Communications and Networking*, 14 pages, 2019, early access DOI: 10.1109/TCCN.2019.2919731.

- [4] Y. Zhang and L. Lazos, "Misbehavior in Multi-channel MAC Protocols," accepted for publications, *IEEE Transactions on Dependable and Secure Computing (TDSC)*, 17 pages, 2018, early access DOI: 10.1109/TDSC.2018.2819170.
- [5] N. Ghose, B. Hu, Y. Zhang, and L. Lazos, "Secure Physical Layer Voting," *IEEE Transactions on Mobile Computing (TMC)*, Vol. 17, No. 3, pp. 688–702, 2018.
- [6] 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.
- [7] A. Proaño, L. Lazos, and M. Krunz "Traffic Decorrelation Techniques for Countering a Global Eavesdropper in WSNs," *IEEE Transactions on Mobile Computing (TMC)*, Vol. 16, No. 3, pp. 857–871, 2017.
- [8] Y. Zhang, L. Lazos, and W. Kozma, "AMD: Audit-based Misbehavior Detection in Wireless Ad Hoc Networks," *IEEE Transactions on Mobile Computing (TMC)*, Vol. 15, No. 8, pp. 1893–1907, 2016.
- [9] H. Rahbari, M. Krunz, and L. Lazos, "Swift Jamming Attack on Frequency Offset Estimation: The Achilles' Heel of OFDM Systems," *IEEE Transactions on Mobile Computing (TMC)*, Vol. 15, No. 5, pp. 1264–1278, 2016.
- [10] 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.
- [11] Y. Zhang and L. Lazos "Vulnerabilities of Cognitive Radio MAC Protocols and Countermeasures," *IEEE Network*, Vol. 27, No. 3, pp. 40–45, 2013.
- [12] 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.
- [13] 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.
- [14] 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.
- [15] 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.
- [16] L. Lazos and M. Krunz, "Selective Jamming/Dropping Insider Attacks in Wireless Mesh Networks," *IEEE Network*, Vol. 25, No. 1, pp. 30–34, 2011.

- [17] 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.
- [18] 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.
- [19] 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.
- [20] *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.
- [21] *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.
- [22] *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.
- [23] *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.
- [24] *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.
- [25] *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 Journal Publications (under review)

- [1] N. Ghose, L. Lazos, and M. Li, “In-band Secret-Free Pairing for COTS Wireless Devices,” *IEEE Transactions on Mobile Computing (TMC)*, pp. 1–15, under major revision.
- [2] L. Li and L. Lazos, “Proofs of Storage Reliability,” submitted to the *IEEE Transactions on Parallel and Distributed Systems (TDPS)*, pp. 1–16, under review.

Refereed Conference/Symposium/Workshop Publications

In my field, top-tier security conferences have very low acceptance rates, with page limits similar to those of journals, and are more competitive and prestigious than journal publications.

- [1] I. Samy, R. Tandon, and L. Lazos, “On the Capacity of Leaky Private Information Retrieval,” to appear in the *Proceedings of the IEEE International Symposium on Information Theory (IEEE ISIT)*, pp. 1–6, 2019.
- [2] I. Samy and L. Lazos, “Optimum Priority Class Selection under Wi-Fi/LTE Coexistence,” *Proceedings of the IEEE International Conference on Communications (IEEE ICC)*, pp. 1–7, 2019.
- [3] N. Ghose, L. Lazos, J. Rozenblit, and R. Breiger, “Multimodal Graph Analysis of Cyber Attacks,” *Proceedings of the SpringSim 2019 Conference*, pp. 1–9, 2019, (invited paper).
- [4] N. Ghose, L. Lazos, and M. Li, “Secure Device Bootstrapping without Secrets Resistant to Signal Manipulation Attacks,” *Proceedings of the Security and Privacy Symposium (Oakland, S&P)*, pp. 819 - 835, 2018, (**acceptance rate 11.5%**).
- [5] I. Samy, L. Lazos, Y. Xiao, M. Li, and M. Krunz “LTE Misbehavior Detection in Wi-Fi/LTE Coexistence Under the LAA-LTE Standard,” *Proceedings of the 11th ACM Conference on Security and Privacy in Wireless and Mobile Networks (WiSec)*, pp. 87–98, 2018.
- [6] A. Salama, M. Li, L. Lazos, Y. Xiao, and M. Krunz, “On the Privacy and Utility Tradeoff in Database-Assisted Dynamic Spectrum Access,” *Proceedings of the IEEE International Symposium on Dynamic Spectrum Access Networks (DySpan)*, pp. 1–10, 2018.
- [7] N. Ghose, L. Lazos, and M. Li, “SFIRE: Secret-Free In-band Trust Establishment for COTS Wireless Devices,” *Proceedings of the IEEE International Conference on Computer Communications (INFOCOM)*, pp. 1529–1537, 2018, (**acceptance rate 19.2%**).
- [8] N. Ghose, L. Lazos, and M. Li, “HELP: Helper-Enabled In-Band Device Pairing Resistant Against Signal Cancellation”, *Proceedings of the 26th USENIX Security Symposium*, pp. 1-18, 2017 (**acceptance rate 15%**).
- [9] S. Lu, R. Lysecky, and L. Lazos, “FEAL: Fine-Grained Evaluation of Active Learning in Collaborative Learning Spaces,” *Proceedings of the American Society for Engineering Education (ASEE) Annual Conference & Exposition*, pp. 1-15, 2017.
- [10] S. Shivaramaiah, G. Calis, O. Koyluoglu, and L. Lazos, “Threshold-based File Maintenance Strategies for Mobile Cloud Storage Systems,” *Proceedings of the IEEE Global Communications Conference, Exhibition, and Industry Forum (GLOBECOM)*, pp. 1–7, 2016.
- [11] N. Ghose and L. Lazos, “Verifying ADS-B Navigation Information Through Doppler Shift Measurements,” *Proceedings of the 34th IEEE/AIAA Digital Avionics Systems Conference (DASC)*, pp. 1 –27, 2015, (**2nd place best graduate student paper award**).

- [12] B. Hu, Y. Zhang, and L. Lazos, “PHYVOS: Physical Layer Voting for Secure and Fast Cooperation,” *Proceedings of the IEEE Conference on Communications and Network Security (CNS)*, pp. 245–253, 2015, (**acceptance rate 25%**). .
- [13] 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.
- [14] T. Johnson and L. Lazos, “Network Anomaly Detection Using Autonomous System Flow Aggregates,” *Proceedings of the IEEE Global Communications Conference, Exhibition, and Industry Forum (GLOBECOM)*, pp. 544–560, 2014.
- [15] Y. Zhang, L. Lazos, K. Chen, B. Hu, and S. Shivaramaiah, “FD-MMAC: Combating Multi-Channel Hidden and Exposed Terminals Using a Single Transceiver,” *Proceedings of the IEEE International Conference on Computer Communications (INFOCOM)*, pp. 2742–2750, 2014, (**acceptance rate 19.3%**).
- [16] H. Rahbari, M. Krunz, and L. Lazos, “Security Vulnerability and Countermeasures of Frequency Offset Correction in 802.11a Systems,” *Proceedings of the IEEE International Conference on Computer Communications (INFOCOM)*, pp. 1015–1023, 2014, (**acceptance rate 19.3%**).
- [17] Q. Zhang and L. Lazos, “Collusion-Resistant Query Anonymization for Location-Based Services,” *Proceedings of the IEEE International Conference on Communications (ICC)*, pp. 768 – 774, 2014.
- [18] Y. Zhang and L. Lazos, “Countering Selfish Misbehavior in Multi-channel MAC Protocols,” *Proceedings of the IEEE International Conference on Computer Communications (INFOCOM)*, pp. 2787–2795, 2013, (**acceptance rate 17.4%**).
- [19] A. Proaño and L. Lazos, “Perfect Contextual Information Privacy in WSNs under Colluding Eavesdroppers,” *Proceedings of the 6th ACM Conference on Wireless Network Security (WiSec)*, pp. 89–94, 2013.
- [20] L. Lazos, S. Liu, and M. Krunz, “Thwarting Inside Jamming Attacks on Wireless Broadcast Communications,” *Proceedings of the 4th ACM Conference on Wireless Network Security (WiSec)*, pp. 29–40, 2011.
- [21] A. Proaño and L. Lazos, “Selective Jamming Attacks in Wireless Networks,” *Proceedings of the IEEE International Conference on Communications (ICC)*, pp. 1–6, 2010.
- [22] B. Alomair, L. Lazos, and R. Poovendran, “Securing Low-Cost RFID Systems: An Unconditionally Secure Approach,” *Proceedings of the 6th International Workshop on RFID Security (RFIDsec)*, pp. 1–17, 2010.
- [23] W. Kozma and L. Lazos, “Dealing with Liars: Misbehavior Identification Based on Rényi-Ulam Games,” *Proceedings of the 5th International ICST Conference on Security and Privacy in Communication Networks (SecureComm)*, pp. 207–227, 2009.

- [24] L. Lazos, S. Liu, and M. Krunz, "Spectrum Opportunity-Based Control Channel Assignment in Cognitive Radio Networks," *Proceedings of the 6th Annual IEEE Communications Society Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON)*, pp. 1–9, 2009 (**acceptance rate 22%**).
- [25] L. Lazos, S. Liu, and M. Krunz, "Mitigating Control Channel Attacks in Multi-channel Ad-Hoc Networks," *Proceedings of the 2nd ACM Conference on Wireless Network Security (WiSec)*, pp. 169–180, 2009.
- [26] W. Kozma and L. Lazos, "REAct: Resource-Efficient Accountability for Node Misbehavior in Ad Hoc Networks based on Random Audits," *Proceedings of the 2nd ACM Conference on Wireless Network Security (WiSec)*, pp. 103–110, 2009 .
- [27] W. Kozma and L. Lazos, "Reactive Identification of Misbehavior in Ad Hoc Networks Based on Random Audits," *Proceedings of the 5th Annual IEEE Communications Society Conference on Sensor, Mesh, and Ad Hoc Communications and Networks (SECON)*, pp. 612–614, 2008.
- [28] *B. Alomair, L. Lazos, and R. Poovendran, "Passive Attacks on a Class of Authentication Protocols for RFID," *Proceedings of the International Conference on Information Security and Cryptology (ICISC)*, pp. 102–115, 2007.
- [29] *L. Lazos, R. Poovendran, and J. A. Ritcey, "Probabilistic Detection of Mobile Targets in Heterogeneous Sensor Networks," *Proceedings of the 6th International Symposium on Information Processing in Sensor Networks (IPSN)*, pp. 519–528, 2007.
- [30] *L. Lazos, R. Poovendran, and J. A. Ritcey, "On the Deployment of Heterogeneous Sensor Networks for Detection of Mobile Targets," *Proceedings of the 5th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt)*, pp. 1–10, 2007.
- [31] *L. Lazos and R. Poovendran, "Coverage in Heterogeneous Sensor Networks," *Proceedings of the 4th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt)*, pp. 1–10, 2006.
- [32] *L. Lazos, R. Poovendran, C. Meadows, P. Syverson, and L. W. Chang, "Preventing Wormhole Attacks on Wireless Ad Hoc Networks: A Graph Theoretic Approach," *Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC)*, Vol. 2, pp. 1193–1199, 2005.
- [33] *L. Lazos, S. Čapkun, and R. Poovendran, "ROPE: Robust Position Estimation in Wireless Sensor Networks," *Proceedings of the 4th International Symposium on Information Processing in Sensor Networks (IPSN)*, pp. 324–331, 2005.
- [34] *L. Lazos and R. Poovendran, "SeRLoc: Secure Range-Independent Localization for Wireless Sensor Networks," *Proceedings of the ACM Workshop on Wireless Security (WiSe)*, pp. 21–30, 2004.

- [35] *L. Lazos, J. Salido, and R. Poovendran, “VP3: Using Vertex Path and Power Proximity for Energy Efficient Key Distribution,” *Proceedings of the IEEE Vehicular Technology Conference (VTC)*, pp. 1228–1232, 2004.
- [36] *L. Lazos and R. Poovendran, “Cross-Layer Design for Energy-Efficient Secure Multicast Communications in Ad Hoc Networks,” *Proceedings of the IEEE International Conference on Communications (ICC)*, Vol. 6, pp. 3633–3639, 2004.
- [37] *L. Lazos and R. Poovendran, “Energy-Aware Secure Multicast Communication in Ad-hoc Networks Using Geographic Location Information,” *Proceedings of the IEEE International Conference on Acoustics Speech and Signal Processing (ICASSP)*, Vol. 4, pp. 201–204, 2003.
- [38] *L. Lazos and R. Poovendran, “Secure Broadcast in Energy-Aware Wireless Sensor Networks,” *Proceedings of the IEEE International Symposium on Advances in Wireless Communications (ISWC)*, pp. 151–152, 2002.

Refereed Conference/Symposium/Workshop Publications (under review)

- [1] X. Han, I. M. Samy, and L. Lazos, “Energy-efficient LTE/Wi-Fi Coexistence,” submitted to the *IEEE Global Communications Conference, Exhibition, and Industry Forum (GLOBECOM)*, pp. 1–6, 2019.
- [2] I. M. Samy and L. Lazos, “Restoring Fairness Between Wi-Fi and LTE Under LTE Misbehavior,” submitted to the *IEEE Global Communications Conference, Exhibition, and Industry Forum (GLOBECOM)*, pp. 1–6, 2019.
- [3] A. M. Salama, M. Li, L. Lazos, Y. Xiao, and M. Krunz, “Privacy-Utility Tradeoff with Non-Cooperative Incumbent Users for Dynamic Spectrum Sharing,” submitted to the *IEEE Global Communications Conference, Exhibition, and Industry Forum (GLOBECOM)*, pp. 1–6, 2019.

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).

WORKS IN PROGRESS

- [1] N. Ghose, L. Lazos, and M. Li, “ART: Automatic Recovery of Trust After Secret Exposure in Wireless Networks,” 2019.
- [2] I. Samy, M. Li, L. Lazos, Y. Xiao, and M. Krunz, “LTE Misbehavior Detection via Implicit Sensing,” 2019.
- [3] I. Samy, R. Tandon, and L. Lazos, “Characterizing the Capacity of Leaky Private Information Retrieval,” 2019.
- [4] I. M. Samy and L. Lazos, “Energy-efficient Coordination of Wi-Fi and LTE over the Unlicensed Bands,” 2019.
- [5] L. Li and L. Lazos, “On the Integration of Logical and Physical Proofs of Reliability,” 2019.

CONFERENCES/SCHOLARLY PRESENTATIONS

Colloquia

- [1] “IMap: Visualizing Network Activity over Internet Maps,” Computer Science, University of Arizona Research Colloquium, Sep. 2014.

Seminars

- [1] “Know Thy Files: Proofs of Cloud Storage Reliability,” Postdoc Best Practices Program in partnership with the National Science Foundation, Tucson, Arizona, Nov. 2016.
- [2] “Coordinating Multi-user Wireless Access without Control Channels,” UCN@Sophia Labex Seminar, Eurecom, Nice, France, Feb. 2015.

Conferences

- [1] “Threshold-based File Maintenance Strategies for Mobile Cloud Storage Systems,” IEEE Global Communications Conference, Exhibition, and Industry Forum (GLOBECOM), Washington DC, USA, Dec. 2016.
- [2] “PHYVOS: Physical Layer Voting for Secure and Fast Cooperation,” IEEE Conference on Communications and Network Security (CNS), Florence, Italy, Sep. 2015.
- [3] “Security Vulnerability and Countermeasures of Frequency Offset Correction in 802.11a Systems,” IEEE International Conference on Computer Communications (INFOCOM), Toronto, Canada, Apr. 2014.
- [4] “Collusion-Resistant Query Anonymization for Location-Based Services,” IEEE International Conference on Communications (ICC), Sydney, Australia, Jun. 2014.

SERVICE/OUTREACH

National/International Outreach

Memberships:

- Member, Institute of Electrical and Electronics Engineers (IEEE).
- Member, Association for Computing Machinery (ACM).
- Member, Institute of Electrical and Electronics Engineers Communications Society (IEEE ComSoc).
- Member, Institute of Electrical and Electronics Engineers Signal Processing Society (IEEE SPS).
- Member, Institute of Electrical and Electronics Engineers Information Theory Society (IEEE IT).

Editorships:

- 2017 - present, Associate Editor: IEEE Transactions on Information Forensics and Security.
- 2017 - present, Associate Editor: IEEE Transactions on Mobile Computing.

Conference Organization:

- TPC Co-Chair, IEEE Conference on Communications and Network Security (IEEE CNS' 18), Beijing, China, 2018.
- Workshop 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' 17), Las Vegas, USA, 2017.
- Poster Chair, IEEE Conference on Communications and Network Security (IEEE CNS' 16), Philadelphia, USA, 2016.
- 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.

Reviewer:

- IEEE Transactions on Mobile Computing (TMC).
- IEEE Transactions on Dependable and Secure Computing (TDSC).
- IEEE Transactions on Wireless Communications (TWC).
- IEEE Transactions on Communications (TCOM).
- IEEE Transactions on Information Forensics and Security (T-IFS).
- IEEE Journal on Selected Areas in Communications (JSAC).
- IEEE Transactions on Vehicular Technology (TVT).
- IEEE Transactions on Computers (TC).
- IEEE Communication Letters (COMML).
- IEEE Wireless Communications Magazine (WCM).
- ACM Transactions on Sensor Networks (TOSN).
- ACM Transactions on Information and System Security (TISSEC).
- Elsevier Computer Networks (COMNET).
- Elsevier Computer Communications (COMCOM).
- Elsevier Ad Hoc Networks (ADHOC).

Conference/Symposia Technical Program Committees:

- IEEE International Conference on Computer Communications (INFOCOM), 2020.
- IEEE International Conference on Computer Communications (INFOCOM), 2019.
- IEEE Conference on Communications and Network Security (CNS), 2019.
- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec), 2019.
- IEEE Global Communications Conference (GLOBECOM), 2019.
- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec), 2018.
- IEEE Global Communications Conference (GLOBECOM), 2018.
- International Conference on Cryptology And Network Security (CANS), 2018.
- European Symposium on Research in Computer Security (ESORICS), 2018.

- Wireless On-demand Network systems and Services Conference (WONS), 2018.
- International Conference on Computer Communications and Networks (ICCCN), 2018.
- IEEE Conference on Communications and Network Security (CNS), 2017.
- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec), 2017.
- International Conference on Computer Communications and Networks (ICCCN), 2017.
- ACM Asia Conference on Computer and Communications Security (ASIACCS), 2017.
- IEEE Global Communications Conference (GLOBECOM), 2017.
- IEEE Wireless Communications and Networking Conference (WCNC), 2017.
- IEEE Conference on Communications and Network Security (CNS), 2016.
- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec), 2016.
- IEEE International Conference on Communications (ICC), 2016.
- IEEE Wireless Communications and Networking Conference (WCNC), 2016.
- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec), 2015.
- IEEE International Conference on Communications (ICC), 2015.
- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec), 2015.
- IEEE Conference on Communications and Network Security (CNS), 2014.
- International Symposium on Algorithms and Experiments for Sensor Systems, Wireless Networks and Distributed Robotics (ALGOSENSORS), 2014.
- International Conference on Networked Systems (NETSYS), 2014.
- International Workshop on Performance Control in Wireless Sensor Networks (PWSN), 2014.
- ACM Conference in Security and Privacy in Wireless and Mobile Networks (WiSec), 2013.
- IEEE International Conference on Communications (ICC), 2013.
- IEEE Global Communications Conference (GLOBECOM), 2013.
- IEEE International Conference on Computing, Networking, and Communications (ICNC), 2013.
- International Workshop on Performance Control in Wireless Sensor Networks (PWSN), 2013.

Proposal Review Panels

- National Science Foundation (NSF),
Computer and Information Science and Engineering (CISE),
June 2018.
- 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.

Departmental Committees

AY 2019–2020:

- Member, Graduate Recruiting and Awards Committee.
- Member, Committee on Committees.

AY 2018–2019:

- Member, Executive Committee.
- Member, Committee on Committees.

AY 2017–2018:

- Member, Executive Committee.
- Member, Committee on Committees.

AY 2016–2017:

- Member, Executive Committee.
- Member, Peer Review Committee.
- Member, Committee on Committees.

AY 2015–2016:

- Member, Peer Review Committee.

AY 2014–2015: On sabbatical.

AY 2013–2014:

- Member, Graduate Studies Committee.
- Member, Graduate Recruiting and Awards Committee.
- Member, Committee on Committees.

Student Examination Committees (non-advisor), 2013–2019

- Ph.D. Dissertation Defense = 10
- M.S. Thesis Defense = 8
- Ph.D. Qualifying Exam = 7
- Ph.D. Written Comprehensive Exam = 15
- Ph.D. Oral Comprehensive Exam = 20

College Committees

- Member, Electrical and Computer Engineering Department Head 5-year performance review committee, 2018.

University Committees

- Member, University of Arizona, Undergraduate STEM Education Leadership Committee, 2017.
- Member, University of Arizona, Undergraduate STEM Education Teaching Award Committee, 2017.
- Member, University of Arizona, Undergraduate STEM Education Leadership Committee, 2016.

- Member, University of Arizona, Undergraduate STEM Education Leadership Committee, 2015.
- Member, University of Arizona, Undergraduate STEM Education Leadership Committee, 2014.
- Member, University of Arizona, Undergraduate STEM Education Teaching Award Committee, 2014.
- Member, University of Arizona Assurance (AZA) Mentor Program, 2014.
- Member, University of Arizona Assurance (AZA) Mentor Program, 2013.