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EDUCATION

Ph.D., University of Maryland Baltimore County (UMBC), Baltimore, MD, Computer Science, (2000 - 2005)

M.S., Middle East Technical University (METU), Ankara, Turkey, Computer Engineering, (1997 - 1999)

B.S., Bilkent University, Ankara, Turkey, Computer Engineering and Information Sciences, (1993 - 1997)

FULL-TIME ACADEMIC EXPERIENCE

Florida International University, Miami, FL, Professor (courtesy), KF School of Computing and Information Sciences, 2021-

Florida International University, Miami, FL, Professor, Electrical and Computer Engineering, 2017 -

Florida International University, Miami, FL, Associate Professor, Electrical and Computer Engineering, 2014 - 2017

Southern Illinois University, Carbondale, IL, Associate Professor, Computer Science, 2011 - 2014

Southern Illinois University, Carbondale, IL, Assistant Professor, Computer Science, 2005 - 2011

University of Maryland Baltimore County, Teaching Assistant, Computer Science and Electrical Engineering, 2001-2005

University of Maryland Baltimore County, Research Assistant, Computer Science and Electrical Engineering, 2002-2004

University of Maryland Baltimore County, Research Assistant, Maryland Center for Telecommunications Research, 2000-2001

ADMINISTRATIVE EXPERIENCE

Director of Advanced Wireless and Security Lab, FIU, 2014-

Research Director for FIU Cybersecurity Emerging Preeminent Program, 2019-

Program Coordinator for IoT Bachelor's Degree, FIU, 2017 – 2020

Program Co-Chair for FIU Cybersecurity Emerging Preeminent Program, 2017-2019

PUBLICATIONS

Journals

1. S. Mercan, A. Kurt, E. Erdin and K. Akkaya, "Cryptocurrency Solutions to Enable Micro-payments in Consumer IoT," in *IEEE Consumer Electronics Magazine* (to appear).

2. L. P. Rondon, L. Babun, A. Aris, K. Akkaya, A. S. Uluagac, "Survey on Enterprise Internet-of-Things systems (E-IoT): A security perspective", *Elsevier Ad Hoc Networks* (to appear).

3. A. Acar, S. Ali, K. Karabina, C. Kaygusuz, H. Aksu, K. Akkaya and S. Uluagac, "A Lightweight Privacy-aware Continuous Authentication Protocol – PACA" in *ACM Transactions on Security and Privacy,* Vol 24. No. 4, pp. 2-28, Nov. 2021.

4. A. Kurt, N. Saputro and K. Akkaya, "Distributed Connectivity Maintenance in Swarm of Drones during Post-Disaster Transportation Applications", in *IEEE Transactions on Intelligent Transportation Systems (ITS)*, Vol. 22, No. 9, pp. 6061 – 6073, March 2021.

5. L. Puche, L. Babun, K. Akkaya and S. Uluagac, "HDMI-Watch: Smart Intrusion Detection System Against HDMI Attacks", in *IEEE Transactions on Network Science and Engineering (TNSE)* Vol. 8, No. 3, 2060 – 2072, Sept. 2021.

6. E. Erdin, S. Mercan and K. Akkaya, "An Evaluation of Cryptocurrency Payment Channel Networks and Their Privacy Implications", in *ITU Journal on Future and Evolving Technologies*, Vol. 2, No. 1, 2021.

7. A. Aydeger, M. Manshaei, M. Rahman and K. Akkaya, "Strategic Defense against Stealthy Link Flooding Attacks: A Signaling Game Approach" in *IEEE Transactions on Network Science and Engineering (TNSE)*, Vol. 8, No. 1, pp. 751–764, 2021.

8. A. Acar, H. Aksu, A. S. Uluagac, and K. Akkaya, "A Usable and Robust Continuous Authentication Framework using Wearables", *IEEE Transactions on Mobile Computing*, Vol. 20, No. 6, pp. 2140-2153, 2021

9. E. Erdin, M. Cebe, K. Akkaya, E. Bulut, and S. Uluagac, "A Scalable Private Bitcoin Payment Channel Network with Privacy Guarantees," in *Elsevier Journal of Network and Computer Applications,* Vol. 180, 2021.

10. S. Mercan, M. Cebe, K. Akkaya, R. Aygun, and D. Danko, "Blockchain-based video forensics and integrity verification framework for wireless IoT devices", *Wiley Security and Privacy,* Vol. 4, No. 2, 2021.

11. M. A. Abdel-Malek, N. Saputro, A. Ibrahim, K. Akkaya, "UAV-Assisted Multi-path Parallel Routing for mmWave-Based Wireless Networks, *Elsevier Internet of Things Journal*, Vol. 14, 2021.

12. S. Mercan, E. Erdin, and K. Akkaya, "Improving transaction success rate in cryptocurrency payment channel networks", *Elsevier Computer Communications*, 166:196 – 207, 2021.

13. M. Cebe and K. Akkaya, "Communication-efficient Certificate Revocation Management for Advanced Metering Infrastructure", in *Elsevier Future Generation Computer Systems Journal*, Vol. 115, pp. 267-278, 2021.

14. S. Mercan, L. Cain, K. Akkaya, M. Cebe, S. Uluagac, M. Alonso, and C. Cobanoglu. "Improving the service industry with hyper-connectivity: IoT in hospitality", *International Journal of Contemporary Hospitality Management,* Vol. 33 No. 1, pp. 243-262, 2020.

15. A. Kumar, H. Binol, S. Singh, I. Guvenc and K. Akkaya, "Heuristic Approach for Jointly Optimizing FeICIC and UAV Locations in Multi-Tier LTE-Advanced Public Safety HetNet", *in IET Communications*, Vol. 14. No. 20, pp. 3585 – 3598, 2020.

16. O. Bautista, K. Akkaya, S. Uluagac, "Customized novel routing metrics for wireless mesh-based swarm-of-drones applications", *Elsevier Internet of Things Journal*, Vol. 11, 2020.

17. E. Erdin, M. Cebe, K. Akkaya, S. Solak, E. Bulut and S. Uluagac, "A Bitcoin Payment Network with Reduced Transaction Fees and Confirmation Times", *Elsevier Computer Networks,* Vol. 172, pp. 107098, 2020.

18. D. Gabay, M. Cebe and K. Akkaya, "A Privacy-preserving Authentication scheme for Connected Electric Vehicles Using Blockchain and Zero Knowledge Proofs", *IEEE Transactions on Vehicular Technology*, Vol. 69, No. 6, pp. 5760-5772, June 2020.

19. A. Acar, W. Liu, R. Bayeh, K. Akkaya and S. Uluagac, "A Privacy-preserving Multi-factor Authentication System" *Springer Security and Privacy Journal*, Vol. 2, No. 5, 2019.

20. M. Abdelmalek, A. Ibrahim, M. Mokhtar and K. Akkaya, "UAV Positioning for Out-of-Band Integrated Access and Backhaul Millimeter Wave Network", *Elsevier Physical Communications Journal*, Vol. 35, 2019.

21. E. Bulut, M. Kisacikoglu and K. Akkaya, "Spatio-Temporal Non-intrusive Direct V2V Charge Sharing Coordination", *IEEE Transactions on Vehicular Technology*, Vol. 68, No. 10, pp. 9385-9398, Oct. 2019.

22. M. Cebe and K. Akkaya, "Efficient certificate revocation management schemes for IoT-based advanced metering infrastructures in smart cities", *Elsevier Ad Hoc Networks*, Vol. 92, Sept. 2019, 101801.

23. A. Aydeger, N. Saputro, K. Akkaya, and S. Uluagac, "SDN-enabled recovery for Smart Grid teleprotection applications in post-disaster scenarios", *Journal of Network and Computer Applications*, 138 (2019): 39-50

24. A. Alsharif, M. Nabil, S. Tonyali, H. Mohammed, M. Mahmoud and K. Akkaya, "EPIC: Efficient Privacy-Preserving Scheme With EtoE Data Integrity and Authenticity for AMI Networks," in *IEEE Internet of Things Journal,* vol. 6, no. 2, pp. 3309-3321, April 2019.

25. A. Aydeger, N. Saputro, K. Akkaya, "A moving target defense and network forensics framework for ISP networks using SDN and NFV", *Elsevier Future Generation Computer Systems*, Volume 94, 2019, pp. 496-509, 2019.

26. Binol, H., I. Guvenc, E. Bulut, and K. Akkaya, "Hybrid evolutionary search method for complex function optimization problems" *IEEE Electronics Letters* 54, no. 24 (2018): 1377-1379.

27. M. Cebe, E. Erdin, K. Akkaya, H. Aksu and S. Uluagac, "Block4Forensic: An Integrated Lightweight Blockchain Framework for Forensics Applications of Connected Vehicles", *IEEE Communications Magazine*, 2018.

28. F. Yucel, K. Akkaya and E. Bulut, "Efficient and Privacy Preserving Supplier Matching for Electric Vehicle Charging", *Elsevier Adhoc Networks Journal*, 2018.

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30. Chunqiang Hu, Jiguo Yu, Xiuzhen Cheng, Zhi Tian, Kemal Akkaya, and Limin Sun. CP_ABSC: An attribute-based signcryption scheme to secure multicast communications in smart grids. *Mathematical Foundations of Computing*, 2018, 1 (1): 77-100.

31. E. Harmon, U. Ozgur, M. H. Cintuglu, R. de Azevedo, K. Akkaya and O. A. Mohammed, "The Internet of Microgrids: A Cloud-Based Framework for Wide Area Networked Microgrids," in *IEEE Transactions on Industrial Informatics*, vol. 14, no. 3, pp. 1262-1274, March 2018.

32. B. Ciftler, S. Dikmese, I. Guvenc, K. Akkaya and A. Kadri, "Occupancy Counting with Burst and Intermittent Signals in Smart Buildings", in *IEEE Internet of Things Journal*, Vol. 5, No. 2, pp. 724-735, 2018.

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Special Issue on Wireless Multimedia Sensor Networks, Vol. 9, No. 4, pp. 514-527, 2011.

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64. A. Abbasi, M. Younis and K. Akkaya, "Movement Assisted Connectivity Restoration in Wireless Sensor and Actor Networks", *IEEE Transactions on Parallel and Distributed Systems,* Vol. 20, No. 9, 2009, pp.1366-1379.

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Proceedings

1. Y. Hanna, M. Cebe, S. Mercan, and K. Akkaya, "Efficient Group-Key Management for Low-bandwidth Smart Grid Networks", in the *Proceedings of Smart Grid Communications Conference (SmartGridComm),* Oct. 2021.

2. J. Leon, O. Bautista, A. Aydeger, S. Mercan, and K. Akkaya "A General and Practical Framework for Realization of SDN-based Vehicular Networks", in the *Proceedings of International Performance Computing and Communications Conference (IPCCC)*, Oct. 2021.

3. O. Bautista, K. Akkaya and S. Homsi, "Outsourcing Secure MPC to Untrusted Cloud Environments with Correctness Verification", in the *Proceedings of IEEE Local Computer Networks (LCN'21)*, Oct. 2021.

4. S. Mercan, M. Cebe, K. Akkaya, and J. Zuluaga**,** "Blockchain-based Two-Factor Authentication for Credit Card Validation", in the *Proceedings of 5th International Workshop on Cryptocurrencies and Blockchain Technology in conjunction with ESORICS'21, July 2021*.

5. A. Kurt, S. Mercan, O. Shlomovits, E. Erdin and K. Akkaya, "LNGate: Powering IoT with Next Generation Lightning Micro-payments using Threshold Cryptography", in the *Proceedings of ACM Wireless and mobile Security Conference (ACM WiSec'21)*, July 2021.

6. L. Puche, L. Babun, A. Aris, K. Akkaya and S. Uluagac, "LightningStrike: (In)secure Practices of E-IoT Systems in the Wild", in the *Proceedings of ACM Wireless and mobile Security Conference (ACM WiSec'21)*, July 2021.

7. E. Flor, R. Aygun, S. Mercan and K. Akkaya, "PRNU-based Source Camera Identification for Multimedia Forensics", in the *Proceedings of IEEE International Conference on Information Reuse and Integration for Data Science (IRI)*, July 2021.

8. A. Kurt, S. Mercan, E. Erdin, and K. Akkaya, "Enabling Micro-payments on IoT Devices using Bitcoin Lightning Network" in the *Proceedings of IEEE International Conference on Blockchain and Cryptocurrencies (ICBC),* May 2021.

9. M. Abdelmalek, K. Akkaya, A. Bhuyan and A. Ibrahim, "A Proxy Signature-Based Drone Authentication in 5G D2D Networks, in the *Proceedings of IEEE Vehicular Technology Conference (VTC),* Spring 2021, April 2021.

10. M. Cebe and K. Akkaya, "A Bandwidth-Efficient Secure Authentication Module for Smart Grid DNP3 Protocol," *2020 Resilience Week (RWS)*, Salt Lake City, UT, USA, 2020, pp. 160-166.

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12. S. Mercan, K. Akkaya, L. Cain, and J. Thomas, "Security, privacy and ethical concerns of IoT implementations in hospitality domain", in the *Proceedings of International Conferences on Internet of Things (iThings)*, pages198–203, IEEE, 2020.

13. L. Pusche, L. Babun, A. Aris, K. Akkaya and S. Uluagac, "(In)secure Practices of Enterprise IoT Systems in Smart Buildings", in the *Proceedings of International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation (Buildsys '20)*, 2020.

14. M. Abdelmalek, K. Akkaya, A. Bhuyan and A. Ibrahim, "Enabling Second Factor Authentication for Drones in 5G using Network Slicing" in the *Proceedings of IEEE GLOBECOM Workshop on 5G and Beyond Security (Wireless-Sec'20),* Dec. 2020.

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16. M. Rahman, T. Rahman, M. Kisacikoglu, and K. Akkaya, "Hardware-Enabled Intrusion Detection for Power Electronics Security in Unmanned Aerial Vehicles", in the *Proceedings of IEEE Workshop on Cybersecurity of Power Electronics Systems (CyberPELS),* Aug. 2020.

17. A. Kurt, E. Erdin, M. Cebe, K. Akkaya and S. Uluagac, "LNBot: A Covert Hybrid Botnet on Bitcoin Lightning Network for Fun and Profit", in the *Proceedings of 25th European Symposium on Research in Computer Security (ESORICS),* Sept. 2020.

18. K. Rabieh, S. Mercan, K. Akkaya, Vashish Baboolal and R. Aygun, "Privacy-Preserving and Efficient Sharing of Drone Videos in Public Safety Scenarios using Proxy Re-encryption", in the *Proceedings of IEEE International Conference on Information Reuse and Integration (IRI'20),* Aug. 2020 (invited paper).

19. A. Kurt and K. Akkaya, "Connectivity Maintenance Extensions to IEEE 802.11s MAC Layer in NS-3", in the *Proceedings of Workshop on ns-3 (WNS3'20),* May 2020.

20. O. Bautista Chia and K. Akkaya, "Extending IEEE 802.11s Mesh Routing for 3-D Mobile Drone Applications in NS-3", in the *Proceedings of Workshop on ns-3 (WNS3'20),* May 2020.

21. S. Mercan, E. Erdin and K. Akkaya, "Improving Sustainability of Cryptocurrency Payment Networks for IoT Applications", in the *Proceedings of International Conference on Communications Workshop on Blockchain for IoT and CPS,* June 2020.

22. S. Mercan, A. Kurt, M. Cebe, K. Akkaya, "Cryptocurrency Payment Channel Network Testbed", in *NSF Future Experimental Research Infrastructures Workshop (MERIF),* Miami, FL , Jan. 2020 (Invited paper).

23. Amiri, Wesam Al, Mohamed Baza, Karim Banawan, Mohamed Mahmoud, Waleed Alasmary, and K. Akkaya, "Privacy-Preserving Smart Parking System Using Blockchain and Private Information Retrieval", in the *Proceedings of International Conference on Smart Applications, Communications and Networking (SmartNets'2020), 2020 **(Best Paper Award).***

24. S. Mercan, M. Cebe, E. Tekiner, K. Akkaya, M. Chang and S. Uluagac, "A Cost-efficient IoT Forensics Framework with Blockchain", in the *Proceedings of IEEE International Conference on Blockchain and Cryptocurrencies (ICBC'20)*, Sept. 2020

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26. L. Babun, H. Aksu, L. Ryan, E. Bentley, K. Akkaya and S. Uluagac, "Z-IoT: Passive Device-class Fingerprinting of Zigbee and Z-wave IoT Devices", in the *Proceedings of IEEE International Conference on Communications (ICC'20)*, June 2020.

27. M. Baza, A Salazar, M. Mahmoud, M. Abdallah and K. Akkaya, "On Sharing Models Instead of Data Using Mimic Learning for Smart Health Applications", in the *Proceedings of IEEE International Conference on Informatics, IoT, and Enabling Technologies (ICIoT), 2020.*

28. L. Rondon, L. Babun, K. Akkaya and S. Uluagac, "HDMI-WALK: Attacking HDMI Distribution Networks via Consumer Electronic Control Protocol", in the *Proceedings of Annual Computer Security Applications Conference (ACSAC'19), Porto Rico, US,* Dec. 2019.

29. M. Cebe and K. Akkaya, "A Replay Attack-Resistant 0-RTT Key Management Scheme for Low-Bandwidth Smart Grid Communications", in the *Proceedings of IEEE Globecom 2019*, Hawaii, US, Dec. 2019.

30. K. Akkaya, "Curriculum Design Requirements and Challenges for the First Bachelor's Degree on IoT in the US", in the *Proceedings of IFIP International Conference on IoT*, Tampa, FL, Nov. 2019.

31. A. Quijano and K. Akkaya, "Server-side Fingerprint-Based Indoor Localization Using Encrypted Sorting" in the *Proceedings of REUNS Workshop 2019*, Monterey, CA, Nov. 2019

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Chapters in Books

1. K. Akkaya, A. Madanayake, U. D. Silva, S. Pulipati, J. M. Jornet, K. Chowdhury, F. Restuccia, T. Melodia, S. Mandal, J. Shea, A. Dhananjay, J. Dawani, V. Dimitrov, "AI in 6G Wireless Communication Networks" chapter in *Re-Work Inc. white paper titled "The Challenges, Successes, Progression & Failures of Processing in AI"*, 2021.

2. K. Akkaya, "Curriculum Design Requirements and Challenges for the First Bachelor's Degree on IoT in the US", *Book Chapter in Internet of Things. A Confluence of Many Disciplines, Editors:* Casaca, A., Katkoori, S., Ray, S., Strous, Springer, 2020.

3. N. Saputro, S. Tonyali, A. Aydeger, K. Akkaya, M. Rahman, and S. Uluagac, "A Review of Moving Target Defense Applications for Internet of Things", *Book Chapter in Modeling and Design of Secure Internet of Things*, edited by A. Kotz, C. Kamhua, and S. Shetty (to appear).

4. Denney K., Uluagac A.S., Aksu H., Akkaya K, "An Android-Based Covert Channel Framework on Wearables Using Status Bar Notifications. In: *Conti M., Somani G., Poovendran R. (eds) Versatile Cybersecurity. Advances in Information Security*, vol 72. Springer, Cham, 2018.

5. U. Kocabiyik and K. Akkaya, "Digital Forensics for IoT and Sensor Networks", *Book Chapter in The Philosophy of Mission-oriented Wireless Sensor Networks, Springer* (in press).

6. A. Sherif, M. Ismail, M. Pazos-Revilla, M. Mahmoud, K. Akkaya, E. Serpedin, K. Qaraqe, "Privacy Preserving Power Charging Coordination Scheme in the Smart Grid", *Book Chapter in Transportation and Power Grid in Smart Cities: Communication Networks and Services, John Wiley, Oct. 2018.*

7. A. Uluagac, K. Akkaya, A. Mohan, M. Cintuglu, T. Youssef, O. Mohammed, D. Sullivan, ``Wireless Infrastructure in Industrial Control Systems", *Book Chapter in Cybersecurity of Industrial Control Systems*, edited by E. Colbert & A. Kott, Springer (in press, 23 pages).

8. N. Saputro, K. Akkaya and A. Uluagac, ``Privacy-preservation for IoT used in Smart Buildings", *Book Chapter in Security and Privacy in Internet of Things (IoTs): Models, Algorithms, and Implementations*, edited by Fei Hu, Taylor & Francis, 2016.

9. K. Akkaya, A. Uluagac, A. Aydeger and A. Mohan, ``Secure Software-Defined Networking Architectures for the Smart Grid", *Book Chapter in Smart Grid: Networking, Data Management, and Business Models*, edited by H. Mouftah and Melike Erol-Kantarci, Taylor & Francis, 2016.

10. M. Younis, T. Nadeem, A. Bicak and K. Akkaya, "Energy-efficient MAC Protocols for Wireless Sensor Networks", *Book Chapter, Wireless Sensor Networks: From Theory to Applications,* Ibrahim M. M. El Emary, S. Ramakrishnan (eds), CRC Press, Taylor and Francis Group, 2013.

11. M. Younis, S. Lee, I. Senturk and K. Akkaya, "Topology Management Techniques for Tolerating Node Failure in WSNs", *Book Chapter, The Art of Wireless Sensor Networks: Fundamentals I*, Ed. Habib Ammari, Springer, 2014.

12. K. Akkaya, I. F. Senturk, and S. Janansefat, "Design, Implementation and Networking of Mobile Sensing Platforms", *Book Chapter, Cooperative Robots and Sensor Networks*, A. Koubaa, A. Khelil (eds), Springer, 2014.

13. M. Younis, K. Akkaya and Moustafa Youssef "Efficient Handling of QoS Traffic in Wireless Sensor Networks", *Book Chapter, Encyclopedia on Ad Hoc and Ubiquitous Computing,* Ed. Dharma P Agrawal and Bin Xie, World Scientific, pp. 257-281, Sept. 2009.

14. M. Younis and K. Akkaya "Node Positioning for Increased Dependability of Wireless Sensor Networks", *Book Chapter, Algorithms and Protocols for Wireless Sensor Networks,* Ed. A. Boukerche, Wiley & Sons, New Jersey, pp. 225-266, 2008.

15. K. Akkaya and I. Ari, "In-network Data Aggregation in Wireless Sensor Networks", *Book Chapter, Handbook of Computer Networks,* Ed. H. Bidgoli, John Wiley & Sons, Vol. 2, 2007, pp. 1131-1146.

16. A. Yazici and K. Akkaya, "Conceptual Design of GIS (Geographic Information Systems) applications", *Book Chapter, Recent Research Issues on the Management of Fuzziness in Databases,* edited by G. Bordogna and G. Pasi, Physica- Verlag, Heidelberg and New York, 2000.

Technical Reports

1. K. Akkaya, "Relocation of Base-Station for Jamming Attack Avoidance in Wireless Sensor Networks", *Technical Report, TR-08-01*, Department of Computer Science, Southern Illinois University Carbondale, 2008.
2. A. Newell and K. Akkaya, "Implementation Experiences with Motes and TinyDB in a Greenhouse Monitoring Application", *Technical Report, TR-08-02*, Department of Computer Science, Southern Illinois University Carbondale, 2008.

PRESENTED PAPERS AND LECTURES

1. Seminar, Florida International University KFSCIS Seminar Series, Nov. 2021, *Challenges of IoT within the context of Key Management, Cryptocurrencies and Digital Forensics*

2. Panelist, IEEE Computer Society Annual Symposium on VLSI, July 2021, *IoT and AI Will Develop Revolutionary Solutions to Critical Global Problems: A Real Promise or Just a Hype*

3. Seminar, AFRL Summer Program, Aug. 2020, *Efficient and Secure Multi-client Applications over Multi-cloud Environments.*

4. Panelist, USAID Ukraine Program, Sept. 2020, *Cybersecurity in Higher Education*

5. Seminar, DoE SEEDS Center, Jan. 2020, *Efficient Key Management for Low-bandwidth Legacy Environments in Smart Grid*

6. Invited Talk, Idaho National Labs Wireless Security Institute Workshop Nov. 2020, *5G Drone Authentication*

7. Invited Talk, IFIP IoT Conference, Nov. 2019, *Curriculum Design Requirements and Challenges for the first BS Degree on IoT in the US*

8. Invited Talk, US SOCOM Workshop, Oct. 2019, *Delay-tolerant and Anonymous IoT Communications*

9. Invited Talk, USF Workshop on Transportation Security, Sept. 2019, *Forensics and Interoperability for Secure Public-Transportation Operations*

10. Invited Talk, Virginia Commonwealth University, Richmond, VA, Dec. 2018, *Building A Private Bitcoin Payment Network for Reduced Transactions Fees and Times*

11. Invited Talk, University of Nevada Reno, Reno, NV, March 2016, *Privacy Preservation in Smart Grid: Cases of Smart Meter and Vehicle-to-Grid Communications*

12. Invited Talk, Naval Surface Warfare Center, Crane, Indiana, March 2016, *Software Defined Networking for Cyber Resilience and Defense*

13. Keynote Speech, IEEE LCN On-Move Workshop, Clearwater, FL, Oct. 2015, *Security and Privacy Considerations in Vehicular Communications for Smart Grid Applications*

14. Invited Talk, Florida Atlantic University, Boca Raton, FL, Feb. 2016, *Security and Privacy Considerations in Vehicular Communications for Smart Grid Applications*

15. Tutorial, IEEE SouthEastCon, Ft. Lauderdale, FL, Nov. 2015, *Privacy Preservation in Smart Grid and Buildings*

16. Seminar, FIU REU Site Professional Development Series, Miami, FL, July 2015, *Tips for Academic Paper Writing*

17. Invited Talk, U.S. Army sponsored Workshop on Emerging Cyber Techniques and Technologies, Cyberscience, Biometrics and Digital Forensics, Miami, FL, Nov. 2015, *Indoor Localization Privacy using Homomorphic Encryption*

18. Invited Talk, Assurant Connected Living Inc., Miami, FL Sep. 2015, *Indoor Localization Privacy using Homomorphic Encryption*

19. Invited Talk, Enterprise Risk Management Inc., Miami, FL July 2015, *Indoor Localization Privacy using Homomorphic Encryption*

20. Invited Talk, IEEE Miami Chapter, Miami, FL, Nov. 2014, *Wireless Communication Protocols for Smart Grid Neighborhood Area Networks and Their Privacy Threats*

21. Invited Talk, Catholic University of America, March, 2014, Washington, DC, *Preserving Consumer Privacy on IEEE 802.11s-based Smart Grid AMI Networks*

22. Invited Talk, Florida International University, Miami, FL, Nov. 2013, *Preserving Consumer Privacy on IEEE 802.11s-based Smart Grid AMI Networks*

23. Invited Talk, Ameren Electric Cooperation, Collinsville, IL, Sept. 2013, *Preserving Consumer Privacy on IEEE 802.11s-based Smart Grid AMI Networks*

24. Invited Talk, Bahcesehir University, Istanbul, Turkey, July 2013, *Autonomous Large-scale Land Border Monitoring with Wireless Multimedia Sensor Networks*

25. Paper Presentation, IEEE LCN, Clearwater, FL, Oct. 2015, *Software Defined Networking for Wireless Local Networks*

26. Paper Presentation, IEEE LCN 2014, Edmonton, Canada, Sep. 2014, *Connectivity Restoration in Disjoint Wireless Sensor Networks Using Centrality Measures*

27. Paper Presentation, IEEE GLOBECOM 2013, Atlanta, GA, Dec. 2013, *Energy and Coverage Trade-offs in Deploying a Mix of Mobile and Stationary Relays for Disjoint Wireless Sensor Networks*

28. Best Paper Session, IEEE LCN 2013, Sydney, Australia, Oct. 2013, *Autonomous Deployment of Sensors for Maximized Coverage and Guaranteed Connectivity in Underwater Acoustic Sensor Networks*

29. Paper Presentation, IEEE ICC 2013, Budapest, Hungary, June 2013, *Connectivity Restoration in Disjoint Wireless Sensor Networks using Limited Number of Mobile Relays*

30. Paper Presentation, IEEE GLOBECOM 2012, Anaheim, CA, Dec. 2012, *An Effective and Scalable Connectivity Restoration Heuristic for Mobile Sensor/Actor Networks*

31. Paper Presentation, IEEE INFOCOM 2011, Shanghai, China, April 2011, *An Optimization-based Approach for Connecting Partitioned Mobile Sensor/Actuator Networks*

32. Paper Presentation, IEEE Local Computer Networks (LCN'10), Denver, CO, Oct. 2010. *Providing Multi-perspective Event Coverage in Wireless Multimedia Sensor Networks.*

33. Paper Presentation, IEEE Local Computer Networks (LCN'10), Denver, CO, Oct. 2010. *Mobility-based Self Route Recovery from Multiple Node Failures in Mobile Sensor Networks.*

34. Colloquium, Dept. of Computer Science, SIUC, Oct. 2009, *A Group-based Lightweight Authentication Protocol for Vehicular Ad Hoc Networks*

35. Paper Presentation, IEEE International Conference on Communications (ICC'09), Dresden, Germany, June 2009, *Self-Actuation of Cameras for Redundant Data Elimination in Wireless Multimedia Sensor Networks*

36. Invited Talk, Dept. of Computer Science and Engineering, Middle East Technical University, Ankara, Turkey, May 2008, *State-of-the-art and Future Research Trends in Wireless Sensor Networks*

37. Colloquium Talk, Dept. of Computer Science, SIUC, Oct. 2008. *Distributed Node Deployment in Underwater Acoustic Sensor Networks*

38. Paper Presentation, IEEE Global Telecommunications Conference (Globecom'07), Washington, DC, Nov. 2007, *An efficient mechanism for establishing connectivity in Wireless Sensor and Actor Networks*

39. Colloquium Talk, Dept. of Computer Science, SIUC, Oct. 2007, *Maximizing Connected Coverage via Controlled Actor Deployment in Wireless Sensor and Actor Networks*

40. Paper Presentation, IEEE International Conference on Pervasive Services (ICPS'07), Istanbul, Turkey, July 2007. *Coverage-based Clustering of Wireless Sensor and Actor Networks*

41. Paper Presentation, IEEE International Conference on Vehicular Technology (VTC'06), Montreal, Canada, Sept. 2006, *COLA: A Coverage and Latency aware Actor Placement for Wireless Sensor and Actor Networks*

FUNDED RESEARCH

1. PI: Kemal Akkaya, "*Triage Tool for Tracing Cryptocurrency Wallets*", U.S. Drug Enforcement Administration, 11/15/2021 -12/31/2022, $28,850.00.

2. Co-PI: Kemal Akkaya, PI: Osama Mohammed, "*NSF IUCRC Center: Center for Infrastructure Trustworthiness in Energy Systems (CITES)*", National Science Foundation, 7/1/2021-6/30/2026, $505,000.00.

3. PI: Kemal Akkaya, Co-PI; A. Selcuk Uuagac, "*REU Site: Security of Smart Things*, National Science Foundation", 4/1/2022-3/31/2025, $350,000.00.

4. PI Kemal Akkaya, "Untrusted 5G Network Assessment" *Idaho National Labs,* 1/1/2022 – 4/30/2022, $40,000.00

5. Co-PI: Kemal Akkaya, PI: Selcuk Uluagac, "*National Centers of Academic Excellence in Cybersecurity: Automated Attack Detection & Mitigation for Devices and Apps in Smart Settings*", National Security Agency, 8/15/2021-8/14/2024, $750,000.00

6. PI: Kemal Akkaya, "*Security Analysis of 5G Networks",* Idaho National Labs*,* 9/1/2021 – 3/31/2022, $50,000.00

7. Co-PI: Kemal Akkaya, PI: Ram Iyengar, "*The Forensic Investigations Network in Digital Sciences (FINDS) Research Center*", Army Research Lab, 4/2021 – 3/20216, $2,225,000.00

8. Co-PI: Kemal Akkaya, PI: Robert Peacock, "*USAID Cybersecurity for Critical Infrastructure in Ukraine - Higher Education Capacity Building*", DAI Global LLC, 1/1/2021 – 12/31/2023, $600,000.00

9. PI: Kemal Akkaya, Co-PI: Selcuk Uluagac, "*Practical SMPC via Algorand Blockchain*", Airforce Research Lab, 1/1/2021 -12/31/2021, $150,000.00

10. PI: Kemal Akkaya, "*Second Factor Authentication for 5G Drones in Public Safety Scenarios",* *Idaho National Labs,* 5/1/2020 – 9/30/2020, $25,000.00

11. PI: Sukumar Ganapati, Co-PIs: Kemal Akkaya, Giri Narasimhan, Julio Ibarra and H. Frank, "*CyberTraining: Implementation: Medium: Advanced Cyber Infrastructure Training in Policy Informatics*", National Science Foundation, 8/1/2019-7/31/2023, $1,000,000.00.

12. PI: Ahmed Ibrahim, Co-PIs: Kemal Akkaya and Elias Alwan, "*NeTS: Small: Towards mmwave-based Vehicular Communications*", National Science Foundation, 10/1/2018-9/31/2021, $500,000.00

13. PI: Selcuk Uluagac, Co-PI: Kemal Akkaya, "*Design and Implementation of an IoT HoneyFarm*", TrendMicro Inc., 1/1/2019- 7/31/2019, $50,000.00

14. PI: Kemal Akkaya, "*Forensics and Interoperability for Secure Public-Transportation Operations*", USF/FDOT, 3/23/2019, $1,000.

15. PI: Kemal Akkaya, Co-PIs: Lisa Cain, Miguel Alonso, Selcuk Uluagac, "*An IoT-based Certificate Program for Hospitality Industry in South Florida*", Cisco/Silicon Valley Foundation, 6/1/2018-5/31/2021, $300,000.00

16. PI: Kemal Akkaya, Co-PI; A. Selcuk Uuagac, *REU Site: Security of Smart Things*, National Science Foundation, 4/1/2018-3/31/2021, $327,000.00.

17. PI: Selcuk Uluagac, Co-PIs: Kemal Akkaya, "*SaTC: TTP: Small: Collaborative: Privacy-aware Wearable-Assisted Continuous Authentication Framework*", National Science Foundation, 6/1/2017- 5/31/2022, $357,200.00

18. PI: Kemal Akkaya, Co-PI: Selcuk Uluagac, "*DroneITS: Drone-aided Platform for Enabling Next Generation Intelligent Transport Systems*", Qatar National Research Fund, 1/1/2017-12/31/2020, $223,000.00.

19. PI: Selcuk Uluagac, Co-PIs: Kemal Akkaya and Alexander Pons, "*Collaborative Research: SURPASS: NSF SFS Unique Scholarship Program in Hardware and Systems Security*", National Science Foundation, 6/1/2017- 5/31/2022, $2,037,529.00

20. PI: Selcuk Uluagac, Co-PI: Kemal Akkaya, "*Design and Implementation of a Hands-on IoT*

Security Class", Florida Center for Cybersecurity, 6/1/2016-5/31/2017, $50,000.00, My Portion: $82,000.00

21. PI: Osama Mohammed, Co-PI: Kemal Akkaya, *An Interdisciplinary Approach to Integratable, Composable, and Evolvable Cybersecurity in Energy Delivery Systems*, Department of Energy, 10/1/2015-9/30/2020, $2.4M

22. PI: Kemal Akkaya, Co-PI; A. Selcuk Uluagac, *REU Site: Security of Smart Things: From Small Devices to Large Infrastructures*, National Science Foundation, 4/1/2015-3/31/2018, $356,000.00.

23. PI: Kemal Akkaya, Co-PI: Mehrdad Nojoumian, *Towards Software-Defined Networking Based Cyber Resilience*, Florida Center for Cybersecurity, 6/1/2016-5/31/2017, $50,000.00,

24. PI: Kemal Akkaya, Co-PI: Arindam Chowdhury, *Collaborative Research: Pervasive Spectrum Sharing for Public Safety Communications*, National Science Foundation, 9/15/2014-8/31/2017, $208,538.00

25. PI: Kemal Akkaya: *SaTC TWC: TTP Privacy-preserving Data Collection and Access for IEEE 802.11s-based Smart Grid Applications*, National Science Foundation, 9/1/2013-8/31/2017, $298,127.00

26. PI: Kemal Akkaya: REU Supplement: *TWC: TTP Privacy-preserving Data Collection and Access for IEEE 802.11s-based Smart Grid Applications,* National Science Foundation, 5/1/2016-12/31/2016, $16,000.00

27. PI: Arif Sarwat, Co-PIs: Kemal Akkaya and Ismail Guvenc, *CPS: Synergy: Collaborative Research: Towards Secure Networked Cyber-Physical Systems: A Theoretic Framework with Bounded Rationality*, National Science Foundation, 1/1/2015-12/31/2017, $300,000.00, My Portion: $60,000.00

28. PI: Arif Sarwat, Co-PIs: Kemal Akkaya and Ismail Guvenc, *REU Supplement: CPS: Synergy: Collaborative Research: Towards Secure Networked Cyber-Physical Systems: A Theoretic Framework with Bounded Rationality*, National Science Foundation, 8/1/2015-7/31/2016, $16,000.00, My Portion: $4,000.00

29. PI: Kemal Akkaya, *NeTS: Small: Federating Disjoint Wireless Sensor Networks*, National Science Foundation, 9/1/2010-8/31/2013, $191,878.00

Internals:

30. PI: Selcuk Uluagac, Co-PI: K. Akkaya, "*Development of an IoT Resource and Teaching Lab*", FIU Techfee, 8/15/2018-8/14/2020, $250,000.00

31. PI: Kemal Akkaya, *Delay and Coverage Aware Management of Wireless Sensor and Actor Networks,* Southern Illinois University Carbondale, Faculty Seed, 8/16/2007-8/15/2008, $14,400

PATENT DISCLOSURES, APPLICATIONS, AND AWARDS

1. Patent: "*Method for Continuous User Authentication with Wearables", by* Abbas Acar, Hidayet Aksu, Kemal Akkaya and Selcuk Uluagac.
2. Patent: "*Inducing Data Loss via Handshakes in Zigbee Networks*" by Spencer Michaels, Kemal Akkaya and Selcuk Uluagac.

3. Patent: "*Systems and Methods for Revocation Management in an AMI network*", by Mumin Cebe and Kemal Akkaya.
4. Patent: "*Systems and methods for inhibiting threats to a computing environment*", by Kyle Denney, Selcuk Uluagac, Enes Erdin, Leanorda Babun and Kemal Akkaya.
5. Patent: "*Systems and methods for monitoring activity in an HDMI Network*" by Luis Pusche, Leanorda Babun, Kemal Akkaya and Selcuk Uluagac.
6. Patent: "A Cost-efficient IoT Forensics Framework" by Suat Mercan, Kemal Akkaya, Mumin Cebe and Selcuk Uluagac.
7. Patent Disclosure: "*A Replay Attack-Resistant 0-RTT Key Management Scheme for Low-Bandwidth Smart Grid Communications*" by Mumin Cebe and Kemal Akkaya.
8. Paten Disclosure: "*Method to improve security, reliability, and resilience of a group of 5G-connected devices*", by Kemal Akkaya and Arup Bhuyan

COURSES TAUGHT

- CS 215: Discrete Mathematics (Fall 2013, Spring 2013, Fall 2012, Spring 2012, Fall 2011, Spring 2011, Fall 2010, Spring 2010, Fall 2009, Spring 2008, Fall 2008, Spring 2007, Fall 2007, Spring 2007, Fall 2006, Spring 2006, Fall 2005) at SIU.
- CS 330: Introduction to the Design and Analysis of Algorithms (Spring 2010) at SIU
- CS 485: Software Engineering (Spring 2014) at SIU.
- CS 410: Computer Security (Spring 2014, Spring 2013, Spring 2012, Spring 2011) at SIU.
- CS 441: Mobile and Wireless Computing (Fall 2013, Fall 2011, Fall 2010, Fall 2009, Fall 2008, Fall 2007, Fall 2006, Fall 2005) at SIU.
- CS 591: Wireless and Network Security (Spring 2009) at SIU.
- CS1112: Algorithm and Data Structures (Fall 2012) at George Washington University.
- EEL 5718: Computer Communication Networks (Fall 2014, Fall 2015, Fall 2016, Fall 2018, Fall 2019, Fall 2020, Fall 2021) at FIU.
- TCN 5271: Ubiquitous and Sensor Network Centric Telecommunications (Spring 2015, Spring 2016, Spring 2017, Spring 2019) at FIU.
- TCN 4081: Telecommunication Network Security (Fall 2016, Fall 2018) at FIU.
- TCN 4211: Telecommunication Networks (Spring 2016, Spring 2017, Spring 2019) at FIU.
- EEL 6990: Cyberphysical System Security (Fall 2017) at FIU.
- TCN 4210: Senior Design for IoT (Spring 2019) at FIU.

RESEARCH SUPERVISION

Post-doc:
1. Dr. Suat Mercan (in progress)
2. Dr. M. Hossein Manshaei (2020-2021)
3. Dr. Nico Saputro (2016-2019)
4. Dr. Hamidullah Binol (2018-2019)
5. Dr. Hidayet Aksu (2016-2018)
6. Dr. Ali Yurekli (2015-2017)

Ph.D.:
1. Maryna Veksler (in progress)
2. Oscar Bautista (in progress)
3. Ahmet Kurt (in progress)
4. Richard Hernandez (in progress)
5. Yacoub Hanna (in progress)
6. Luis Pusche (co-advised with Dr. Uluagac, defended in Fall 2021)
7. Mai Abdelmalek (co-advised with Dr. Ibrahim, defended in Spring 2021)
8. Abdullah Aydeger (defended in Summer 2020)
9. Mumin Cebe (defended in Summer 2020)
10. Enes Erdin (defended in Summer 2020)
11. Abhaykumar Kumbhar (defended in Spring 2019)
12. Samet Tonyali (defended in Spring 2017)
13. Nico Saputro (defended in Summer 2016)
14. Izzet Senturk (defended in Dec. 2013)
15. Fatih Senel (Co-Advisor at UMBC) (defended in Summer 2012)
16. Hakan Oztarak (Co-Advisor at METU, Turkey) (defended in Spring 2012)

M.S.:
1. Juan Leon (in progress)
2. Rocio Devine (in progress)
3. Elijah Toussaint (graduated in Spring 2021)
4. Oscar Bautista (defended in Spring 2020)
5. David Gabay (defended in Fall 2019)
6. Utku Ozgur (defended in Spring 2017)
7. Abdullah Aydeger (defended in Summer 2016)
8. Ozan Cakmak (defended in Spring 2015)
9. Abdullah Albuali (defended in Fall 2014)
10. Mahbubul Khan (defended in Spring 2014)
11. Olive Mbianda (defended in Fall 2013)
12. Andrew Beussink (defended in Fall 2013)
13. Shadi Janansefat (defended in Spring 2013)
14. Sriram Krishnamachari (defended in Spring 2013) ·
15. Michael Gloff (defended in Spring 2012)
16. Enes Yildiz (defended in Spring 2011)
17. Marshall Riley (defended in Spring 2010)
18. Shanthi Vemulapalli (defended in Fall 2009)
19. Aravind R. Sama (defended in Spring 2008)
20. Fatih Senel (defended in Spring 2008)
21. Ismail Guneydas (defended in Fall 2008)
22. Srinavas Janapala (defended in Spring 2007)
23. Aravind Thimmapuran (defended in Fall 2007)

PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS

- Total citations for the papers close to 16,000, Google Scholar, Dec. 2021

- Made the Top 2% Scientist in Stanford University Worldwide list 2020
- FIU Faculty Senate Excellence in Research Award, 2020
- Faculty Research Award, College of Engineering and Computing, FIU 2020.
- Air Force Research Lab Summer Faculty Fellowship, 2020
- Best Poster Award, Nelms IoT Institute Annual IoT Conference, 2019
- Founding PI for FIU's Cybersecurity Emerging Preeminent Program, 2018
- Best Paper Award, SMARTNETS'2020
- Best Paper Runner Up, IEEE MASS REUNS Workshop, 2019
- Best Paper Finalist, IEEE LCN 2013
- Made the list for the 10 most downloaded papers from Computer Networks Journal, 2012
- Top Cited Article Award for Elsevier Ad Hoc Networks, 2005-2010
- Quality Matters Certification for Computer Communication Networks Online Course, 2014
- Made the list for the 10 most downloaded papers from Elsevier Ad Hoc Network Journal, 2007
- Mary Wakeland Diversity Award, Southern Illinois University Carbondale, 2007

OFFICES HELD IN PROFESSIONAL SOCIETIES

- Senior Member, IEEE
- Member, ACM
- Member, IEEE Computer Society
- Member, IEEE Communications Society
- Member, IEEE Internet of Things Subcommittee
- Member, IEEE Smart Cities Subcomittee
- Member, IEEE PELS Ad Hoc Committee on Cybersecurity

OTHER PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE

Editorship:
- *Editor in Chief (EiC), Spring Computer Science Nature Journal, 2021, -*
- *Editorial Board Member*, IEEE Communications Surveys and Tutorials, 2013, -
- *Editorial Board Member*, Sensors Journal, 2015, -
- *Editorial Board Member*, Energy Journal, 2018, -
- *Area Editor*, Elsevier Ad Hoc Networks Journal, 2009, -

- *Guest Editor,* IEEE Transactions on Network Science and Engineering, Special Issue on Cognitive Software Defined Networks, 2020

- *Guest Editor*, Elsevier Ad Hoc Networks Journal, Special Issue on Smart Grid Routing, 2013

- *Guest Editor*, Elsevier Computer Communications Journal, Special Issue on Specialized Routing and Node Placement in Emerging Wireless Ad Hoc Networks, 2010

- *Guest Editor*, Journal of High Speed Networks on QoS Routing in Wireless Mesh Networks, 2008

Chairing:
- Finance Chair, IEEE ICNP, Dallas, 2021

- Session Chair, IEEE LCN 2021

- General Chair, IEEE LCN, Chicago, 2018

- IEEE CPSSec Workshop, Washington, DC, 2019

- TPC Chair, IEEE ICC-SAC, Shanghai, China, 2019

- Finance Chair, ACM WiSec, Miami, FL 2019

- *TPC Chair*, IEEE LCN, Singapure, 2017

- *TPC Co-Chair*, IEEE LCN, Dubai, 2016

- *Chair*, IEEE GLOBECOM IoT-LINK Workshop, Washington, DC 2016

- *Session Chair*, IEEE LCN, Clearwater, FL, 2015

- *Workshop Chair,* IEEE IPCCC, Austin, TX, 2014

- *Publicity Chair,* IEEE WCNC, New Orleans, LA, 2015

- *Corporate Relations Chair*, IEEE LCN, Clearwater, FL, 2015

- *Session Chair*, IEEE SmartGridCom, Miami, FL 2015

- *Publications Chair,* IEEE LCN, Edmonton, Canada 2014

- *Session Chair*, IEEE LCN, Edmonton, Canada, 2014

- *Session Chair,* IEEE ICC, Budapest, Hungary, 2013

- *Session Chair*, IEEE LCN, Sydney, Australia, 2013

- *Demo Chair*, IEEE LCN, Sydney, Australia, 2013

- *Session Chair*, IEEE LCN, Clearwater, FL, 2012

- *Demo Chair*, IEEE LCN, Clearwater, FL, 2012

- *Session Chair,* IEEE GLOBECOM, Atlanta FL, 2012

- *Session Chair*, IEEE WCNC, Paris, France, 2012

- *Session Chair*, IEEE IWCMC, Istanbul, Turkey, 2011

- *Publicity Chair*, IEEE LCN, Bonn, Germany, 2011

- *Program Chair*, First International Workshop on Federated Wireless Sensor Systems (FedSenS 2011)

- *Session Chair*, IEEE Local Computer Networks (LCN 2010), Denver, Colorado, 2010

- *Chair*, IEEE LCN Workshop on Smart Grid Networking Infrastructure, Denver, Colorado, 2010

- *Editorial Liaison Chair*, IEEE Local Computer Networks (LCN 2010), Denver, Colorado, 2010

- *Session Chair*, IEEE International Conference on Communications (ICC'09), Dresden, Germany, June 2009.

- *Special Session Chair*, CATA 2007

TPC Membership:

- Served on more than 60 conferences and workshops including major IEEE conferences: ICC, GLOBECOM, LCN, ICDCS, ICBC, WCNC, SMARTGRIDCOMM, INFOCOM, MASS, ICNC, IPCCC, ISCC, ASONAM.

Panel Member:
- NSF REU Program (2017, 2019)
- NSF SBIR Program (2019)
- NSF CRS Program (2016, 2020)
- NSF NeTS Program (2010, 2013)
- Natural Sciences and Engineering Research Council of Canada (NSERC) (2014)
- Swiss National Science Foundation (2009)
- The Netherlands Organization for Scientific Research (2009)

External reviewer for PhD dissertations: Asim Rasheed, Anna University, India, Kamanashis Biswas, Griffith University, Australia, Qian Qian, University of Padua, Italy
External Book Reviewer for "Cryptography and Network Security" by W. Stallings.
University Service (FIU):
- Member of FIU 2025 Strategic Initiative Implementation Plan Committee, 2020-2021
- Member of FIU NextHorizon 2025 Strategic Plan Committee, 2018-2019
- Member of UNESCO Chair on Water Security, 2020-
- Member of Faculty Search Committee, 2019-2020
- Member of College T&P Committee, 2018-2019
- Chair of ECE Department DAS Committee, 2021-2022
- Chair of Department T&P Committee, 2018-2019
- Member of Faculty Search Committee, 2018-2019
- IoT Program Coordinator, 2017-2020
- Member of University Technology Committee, 2017-2018
- Chair of IoT Degree Committee in the ECE Dept., 2016-2017
- Member of Trends in Cybersecurity Conference of ECE Dept. 2015
- Member of the Marketing Committee, 2015
- Marshall for College of Engineering, FIU, 2015

- Induction to the Profession Ceremony, FIU, 2014
- College Library Committee Representative for ECE, 2015-2016
- Served for FIU Stem Expo, 2014-2019
- Served as a judge at FIU Graduate Student Appreciation Week, 2017
- Serving as one of the university representatives for Florida Center for Cybersecurity, 2015-

Community Service:
- Hosted 2 high school Interns in ADWISE Lab, 2018
- Served as a Judge in Miami - Dade STEM Expo's South Florida Regional Science and Engineering Fair, 2014
- Multiple media appearances:
    - NBC6 Miami: *FIU Looks to Future with 'Internet of Things' Degree*
    - Miami Herald: *Want to make your smartphone talk to your toaster? New FIU degree may be for you*
    - Miami Patch: *FIU Unveils First IoT Degree Program in US*
    - Channel 7: *FIU offers students specialized training in smart devices*
    - IoT Tech News: *First Internet of Things degree in US to be offered by Florida university*
    - FIU News: *FIU to offer first Internet of Things degree in U.S.*
- Interview participant with Forbes Magazine on 5G and Energy Systems (2016)
- Featured in an interview with Channel 7 in Miami on Cybersecurity Center for Energy Systems along with Dr. O. Mohammed and A. Pons (2016): (https://www.youtube.com/watch?v=C5IzDokjZoM)
- Panelist on Security in IoT organized by French-American Chamber of Commerce in Miami, 2017
- Invited Participant of Smart City Workshop of City of Miami, 2017
- Speaker for Mobile Technology Consortium Miami on Smart Cities, 2016
- Member of Miami-Dade Beacon Council, 2016 – Present
- Speaker for IEEE Miami Section on Smart Grid Privacy, 2015
- Organizing Poster Session for engaging Miami-Dade K-12 Summer students at FIU as part of the REU program, 2015-Present
- Presentation to various local companies such as Assurant, EMRISK, JohnsTek, and SiriusXM