Dr. Turgay Korkmaz
Professor
The University of Texas at San Antonio

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The University of Texas at San Antonio
One UTSA Circle
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Education

Doctor of Philosophy, Electrical and Computer Engineering, University of Arizona
Dissertation Title: QoS routing in packet networks

Master of Science, Computer and Information Science, Syracuse University

Master of Science, Computer Engineering and Information Sciences, Bilkent University
Thesis Title: Turkish Text Generation With Systemic-Functional Grammar

Bachelor of Science, Computer Sciences and Engineering, Hacettepe University

Academic Positions

2019 - Present	Full Professor, The Department of Computer Science, The University of Texas at San Antonio
2008 - 2019	Associate Professor, The Department of Computer Science, The University of Texas at San Antonio
2002 - 2008	Assistant Professor, The Department of Computer Science, The University of Texas at San Antonio
1998 - 2001	Graduate Research Assistant, Electrical & Computer Engineering, University of Arizona
1994 - 1996	Graduate Research/Teaching Assistant, Computer Engineering and Information Sciences, Bilkent University

Research Interests

Computer networks, Quality-of-Services (QoS) issues in both wireline and wireless networks, Network Security, Wireless Sensor Networks, Routing algorithms and protocols, Network performance evaluation, Graph mining.

SCHOLARSHIP/RESEARCH/CREATIVE WORKS

<u>Intellectual Contributions</u>

Journal Article, Academic Journal - Peer-Reviewed/Refereed

2019
33.   Akin, E., & Korkmaz, T. (2019). Comparison of Routing Algorithms With Static and Dynamic Link Cost in Software Defined Networking (SDN). *IEEE Access, vol. 7*, pp. 148629 - 148644.

2018
32.   Komajwar, S., & Korkmaz, T. (2018). Challenges and Solutions to Consistent Data Plane Update in Software Defined Networks. *Computer Communications (COMCOM), 130*, 50-59.
www.sciencedirect.com/journal/computer-communications/vol/130/suppl/C

31.   Wichmann, A., Korkmaz, T., & Tosun, A. S. (2018). Robot Control Strategies for Task Allocation with Connectivity Constraints in Wireless Sensor and Robot Networks. *IEEE Transactions on Mobile Computing, 17*(6), 1429 - 1441.

2017
30.   Yu, X., Zhang, H., Lilburn, T., Cai, H., Gu, J., Korkmaz, T., & Wang, Y. (2017). Transcriptomic and network analyses combine to identify genes that drive the red blood cell cycle of Plasmodium falciparum. *International Journal of Data Mining and Bioinformatics (IJDMB), 18*(3), 179-195.
www.inderscienceonline.com/doi/abs/10.1504/IJDMB.2017.087157

29.   Yu, X., Lilburn, T., Cai, H., Gu, J., Korkmaz, T., & Wang, Y. (2017). PageRank influence analysis of protein-protein association networks in the malaria parasite Plasmodium facliparum. *International Journal of Computational Biology and Drug Design (IJCBDD), 10*(2), 137-156.
www.inderscience.com/info/ingeneral/forthcoming.php?jcode=ijcbdd

2015
28.   Wichmann, A., & Korkmaz, T. (2015). Smooth Path Construction and Adjustment for Multiple Mobile Sinks in Wireless Sensor Networks. *Computer Communications, 72*, 93-106.
www.sciencedirect.com/science/article/pii/S0140366415002157

27.   Yu, X., Korkmaz, T., Lilburn, T., Cai, H., Gu, J., & Wang, Y. (2015). Heavy path mining of protein-protein associations in the malaria parasite. *Methods, 83*, 63-70.
http://www.sciencedirect.com/science/article/pii/S1046202315001486

26.   Yu, X., & Korkmaz, T. (2015). Heavy path based super-sequence frequent pattern

mining on web log dataset. *Artificial Intelligence Research*, 1-12.
http://dx.doi.org/10.5430/air.v4n2p1

25.   Yu, X., & Korkmaz, T. (2015). Hypergraph querying using structural indexing and layer-related-closure verification. *Knowledge and Information Systems*, 1-29. http://dx.doi.org/10.1007/s10115-015-0829-4

2014

24.   Feng, G., & Korkmaz, T. (2014). Finding Multi-constrained Multiple   Shortest Paths. *IEEE Transactions on Computers, PP*(99), 1-14.

23.   Wichmann, A., Demirelli Okkalioglu, B., & Korkmaz, T. (2014). The integration of mobile (tele) robotics and wireless sensor networks: A survey. *Computer Communications, 51*, 21-35. http://www.sciencedirect.com/science/article/pii/S0140366414002266

2013

22.   Feng, G., & Korkmaz, T. (2013). A Fast Hybrid epsilon-Approximation Algorithm for Computing Constrained Shortest Paths. *IEEE Communications Letters, 17*(7), 1471 - 1474.

2012

21.   Akbani, R., Korkmaz, T., & Raju, G.V.S. (2012). EMLTrust: An Enhanced Machine Learning Based Reputation System. *Ad Hoc Networks, 10*, 435–457.

20.   Zinsmeyer, C. J., & Korkmaz, T. (2012). A Comparative Review of Connectivity Based Wireless Sensor Localization. *Journal of Internet Services and Information Security (JISIS), 2*(1/2), 59-72.

2011

19.   Akbani, R., & Korkmaz, T. (2011). Enhancing Role Based Trust Management with a Reputation System for MANETs. *EURASIP Journal on Wireless Communications and Networking, 90*, 1-14.

18.   Korkmaz, T., & Tek, S. (2011). Analyzing Response Time of Batch Signing. *Journal of Internet Services and Information Security (JISIS), 1*(1), 70-85.

2010

17.   Cui, Y., Zhao, Y., Korkmaz, T., & Zhang, T. (2010). Supporting multiple metrics in QoS-aware BGP. *SCIENCE CHINA Information Sciences, 53*(10), 1947-1962.

2008

16.   Akbani, R., Korkmaz, T., & Raju, G.V.S. (2008). HEAP: A packet authentication scheme for mobile ad hoc networks. *Ad Hoc Networks, 6*(7), 1134-1150.

2007

15.   Gunes, M. H., Bilir, S., Sarac, K., & Korkmaz, T. (2007). A Measurement Study on Overhead Distribution of Value-Added Internet Services. *Computer Networks (COMNET) Journal, 51*, 4153-4173.

14.   Zheng, Y., Korkmaz, T., & Dou, W. (2007). Two Additive-Constrained Path

Selection in the Presence of Inaccurate State Information. *Computer Communications (COMCOM) Journal, 30*, 2096-2112.

13. Korkmaz, T., Gong, C., Sarac, K., & Dykes, S. G. (2007). Single Packet IP Traceback in AS-level Partial Deployment Scenario. *Int. J. Security and Networks, 2*(1/2), 95-108.

2006

12. Zheng, Y., Korkmaz, T., Dou, W., & Tian, J. (2006). Highly Responsive and Efficient QoS Routing Using Pre- and On-demand Computations along with a New Normal Measure. *Computer Networks Journal, 50*(18), 3743-3762.

11. Ahuja, S., Krunz, M., & Korkmaz, T. (2006). Optimal path selection for minimizing the differential delay in Ethernet over SONET. *Computer Networks Journal, 50*(13), 2349-2363.

2005

10. Korkmaz, T. (2005). Verifying Physical Presence of Neighbors against Replay-based Attacks in Wireless Ad Hoc Networks. *International Journal of Information Technology (IJIT), 11*(2), 5--17.

2004

9. Kuipers, F., Korkmaz, T., Krunz, M., & Van Mieghem, P. (2004). Performance Evaluation of Constraint-Based Path Selection Algorithms. *18*(5), 16-23.

8. Korkmaz, T., Krunz, M., & Guntaka, J. (2004). OSPF-Based Hybrid Approach for Scalable Dissemination of QoS Parameters. *Computer Networks Journal, 46*(2), 273-293.

2003

7. Korkmaz, T., & Krunz, M. (2003). Routing multimedia traffic with QoS guarantees. *IEEE Transactions on Multimedia, 5*(3), 429-443.

6. Korkmaz, T., & Krunz, M. (2003). Bandwidth-Delay Constrained Path Selection Under Inaccurate State Information. *IEEE/ACM Transactions on Networking (ToN), 11*(3), 384-398.

2002

5. Kuipers, F., Korkmaz, T., Krunz, M., & Van Mieghem, P. (2002). An Overview of Constraint-Based Path Selection Algorithms for QoS Routing. *IEEE Communications Magazine, special issue on IP-Oriented Quality of Service, 40*(12), 50-55.

4. Korkmaz, T., Krunz, M., & Tragoudas, S. (2002). An efficient algorithm for finding a path subject to two additive constraints. *Computer Communications Journal, 25*(3), 225-238.

2001

3. Korkmaz, T., & Krunz, M. (2001). A randomized algorithm for finding a path subject to multiple QoS requirements. *Computer Networks Journal, 36*(2-3), 251-268.

2000

2.   Korkmaz, T., & Krunz, M. (2000). Source-oriented topology aggregation with multiple QoS parameters in hierarchical networks. *ACM Transactions on Modeling and Computer Simulation (TOMACS), 10*(4), 295-325.

1996

1.   Korkmaz, T., & Cicekli, I. (1996). Generation of Turkish Verbal Groups with Systemic-Functional Grammar. *ELEKTRIK, Turkish Journal of Electrical Engineering and Computer Sciences, 4*, 78-88.

Conference Proceeding - Peer-Reviewed/Refereed

2019

51.   Akin, E., & Korkmaz, T. (2019). Link-prioritized Network State Information Collection in Multi-controlled SDN. *ICC 2019 - 2019 IEEE International Conference on Communications (ICC)* (pp. 1-6). IEEE.

50.   Akin, E., & Korkmaz, T. (2019). Rate-based Dynamic Shortest Path Algorithm for Efficiently Routing Multiple Flows in SDN. *ICC 2019 - 2019 IEEE International Conference on Communications (ICC)* (pp. 1-6). IEEE.

49.   Akin, E., & Korkmaz, T. (2019). Comparison of Routing Algorithms with Static and Dynamic Link Cost in SDN. *16th IEEE Annual Consumer Communications & Networking Conference (IEEE CCNC)* (pp. 1-8). Las Vegas: IEEE.

2018

48.   Komajwar, S., & Korkmaz, T. (2018). Segmented Source Routing for Handling Link Failures in Software Defined Network. *The 16th IFIP International Conference on Wired & Wireless Internet Communications (WWIC 2018)* (pp. 146-158). Springer.

47.   Silvestro, S. A., Yuen, T. T., Crosser, C., Zhu, D., Korkmaz, T., & Liu, T. (2018). A User Space-based Project for Practicing Core Memory Management Concepts. *ACM SIGCSE 2018* (pp. 6). Baltimore, Maryland, USA: ACM.

2017

46.   Akin, E., & Korkmaz, T. (2017). An Efficient Binary-Search Based Heuristic for Extended Unsplittable Flow Problem. *IEEE ICNC'17* (pp. 831 - 836). Santa Clara, CA, USA: IEEE.

45.   Akin, E., & Korkmaz, T. (2017). Routing Algorithm for Multiple Unsplittable Flows Between Two Cloud Sites with QoS Guarantees. *IEEE ICNC'17* (pp. 917 - 923). Santa Clara, CA, USA: IEEE.

2016

44.   Yu, X., Zhang, H., Lilburn, T., Cai, H., Gu, J., Korkmaz, T., & Wang, Y. (2016). Just-in-time expression of influential genes in the cellular networks of the malaria parasite Plasmodium falciparum during the red blood cycle. *The IEEE International Conference on Bioinformatics and Biomedicine (BIBM)* (pp. 1-6

(acceptance rate 19%)). IEEE. cci.drexel.edu/ieeebibm/bibm2016/

2015

43.   Yu, X., Lilburn, T., Cai, H., Gu, J., Korkmaz, T., & Wang, Y. (2015). PageRank influence analysis of protein-protein association networks in the malaria parasite Plasmodium facliparum. (pp. 1-34). Indianapolis, IN, USA: ICIBM 2015. watson.compbio.iupui.edu/yunliu/icibm/

42.   Wichmann, A., & Korkmaz, T. (2015). Analysis of deployment and movement policies in wireless sensor and robot networks. *IEEE WoWMoM 2015* (pp. 1-9 (acceptance rate 21%)).

2014

41.   Wichmann, A., Korkmaz, T., & Tosun, A. S. (2014). Minimum Hop and/or Minimum Distance Robot Movement with Connectivity Constraints in WRSNs. *IEEE Globecom 2014 - Ad Hoc and Sensor Networking Symposium* (pp. 1-7).

40.   Yu, X., Korkmaz, T., Lilburn, T., Cai, H., Gu, J., & Wang, Y. (2014). Heavy Path Mining Reveals Novel Protein-Protein Associations in the Malaria Parasite Plasmodium falciparum. *IEEE International Conference on Bioinformatics and Biomedicine (BIBM)* (pp. 107-112). (acceptance rate 19%).

39.   Yu, X., & Korkmaz, T. (2014). Evident Behavior Analysis on ADLs. *Workshop on Data Science for Social Good, Held in conjunction with KDD 2014* (pp. 1-4). ACM. http://dssg.uchicago.edu/kddworkshop/papers/yu.pdf

38.   Yu, X., & Korkmaz, T. (2014). Finding the Most Evident Co-Clusters on Weblog Dataset Using Frequent Super-Sequence Mining. *IEEE 15th International Conference On Information Reuse And Integration (IRI)* (pp. 529-536). http://www.pitt.edu/~iri2014/

2013

37.   Yu, X., & Korkmaz, T. (2013). Super-sequence Frequent Pattern Mining on Sequential Dataset. *IEEE International Conference on Big Data* (pp. 52 - 59).

36.   Narman, H., Korkmaz, T., & Tek, S. (2013). Utilizing distance distribution in determining topological characteristics of multi-hop wireless networks. *IEEEE International Conference on Computing, Networking and Communications (ICNC)* (pp. 149-154). IEEE.

2012

35.   Wichmann, A., Chester, J., & Korkmaz, T. (2012). Smooth Path Construction for Data Mule Tours in Wireless Sensor Networks. *IEEE GLOBECOM 2012* (pp. 1-7).

34.   Akbani, R., Korkmaz, T., & Raju, G.V.S. (2012). Mobile Ad-Hoc Networks Security. *Recent Advances in Computer Science and Information Engineering Lecture Notes in Electrical Engineering* (vol. 127, pp. 659-666). Springer.

33.   Pustchi, N., & Korkmaz, T. (2012). Improving packet reception rate for mobile sinks in wireless sensor networks. *IEEE International Symposium on World of Wireless, Mobile and Multimedia Networks (WoWMoM)* (pp. 1-9).

2011

32.   Griffin, M., & Korkmaz, T. (2011). Distributed verification of global multiple disjoint paths in mobile wireless networks. *The 7th International Wireless Communications and Mobile Computing Conference (IWCMC)* (pp. 666-670). IEEE.

31.   Patel, S., Sarac, K., Chandrasekaran, R., Korkmaz, T., & Mittal, N. (2011). Relay Assignment in AMT-Based Multicast Content Distribution. *Ninth Annual Communication Networks and Services Research Conference (CNSR)* (pp. 263-270). IEEE Computer Society Press.

2010

30.   Korkmaz, T. (2010). Batch Forwarding in Wireless Sensor Networks. *IEEE MILCOM 2010* (pp. 1-9). Sponsored by   IEEE, AFCEA.

29.   Korkmaz, T., & Sarac, K. (2010). Characterizing Link and Path Reliability in Large-Scale Wireless Sensor Networks. *IEEE 6th International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob)* (pp. 217 - 224).

2009

28.   Akbani, R., Korkmaz, T., & Raju, G.V.S. (2009). A Hybrid Trust Management System for Automated Fine-Grained Access Control. *IEEE MILCOM 2009.* Sponsored by Raytheon, IEEE, AFCEA.

27.   Korkmaz, T. (2009). Analyzing Response Time of Batch Signing. *IEEE ICCCN 2009 Workshop on Security, Privacy and Trust of Computer and Cyber-Physical Networks (SecureCPN)* (pp. 6). San Francisco:.

2008

26.   Tosun, A., & Korkmaz, T. (2008). PeerGraph: A Distributed Data Structure for Peer-to-peer Streaming. *IEEE Globecom 2008 Communications Software and Services Symposium (GC'08 CSS)* (pp. 1-5). New Orleans, LA: IEEE.

25.   Akbani, R., Korkmaz, T., & Raju, G. (2008). A Machine Learning Based Reputation System for Defending Against Malicious Node Behavior. *IEEE Globecom 2008 Computer and Communications Network Security Symposium (GC'08 CCNS)* (pp. 5). New Orleans, LA:.

24.   Akbani, R., Korkmaz, T., & Raju, G. (2008). Defending Against Malicious Nodes Using an SVM Based Reputation System. *IEEE MILCOM 2008* (pp. 8). San Diego, CA:.

2007

23.   Zhou, W., & Korkmaz, T. (2007). Lower-Priority-Triggered Distributed MAC-layer Priority Scheduling in Wireless Ad Hoc Networks. *The Third International Workshop on Localized Communication and Topology Protocols for Ad hoc Networks (LOCAN 2007) in conjunction with The 4th IEEE International Conference on Mobile Ad Hoc and Sensor Systems (MASS-2007)* (pp. 7).

22.   Akbani, R., Korkmaz, T., & Raju, G. (2007). A Packet Authentication Scheme For Wireless Sensor Networks. *The 22nd International Conference on Computers*

and their Applications (CATA-2007), Special Session on WSNs (pp. 401-407).

21. Akbani, R., Korkmaz, T., & Raju, G. (2007). HEAP: Hop-by-hop Efficient Authentication Protocol For Mobile Ad-hoc Networks. *ACM 10th Communications and Networking Simulation Symposium CNS 07* (pp. 157-165). Norfolk, VA:.

2006

20. Korkmaz, T., & Zhou, W. (2006). On Finding Optimal Paths in Multi-radio Multi-hop Mesh Networks using WCETT Metric". *International Wireless Communications and Mobile Computing Conference IWCMC 2006* (pp. 1375-1380). ACM.
19. Zhang, T., Cui, Y., Zhao, Y., Fu, L., & Korkmaz, T. (2006). Scalable BGP QoS Extension with Multiple Metrics. *IEEE International Conference on Networking and Services (ICNS'06)* (pp. 6). Silicon Valley:.

2005

18. Bilir, S., Sarac, K., & Korkmaz, T. (2005). Intersection Characteristics of End-to-End Internet Paths and Trees. *IEEE International Conference on Network Protocols (ICNP '05)* (pp. 10). Boston, MA:.
17. Gong, C., Le, T., Korkmaz, T., & Sarac, K. (2005). Single Packet IP Traceback in AS-level Partial Deployment Scenario. *IEEE Globecom '05* (pp. 5). St. Louis, MO:.
16. Ahuja, S., Krunz, M., & Korkmaz, T. (2005). Optimal Path Selection for Ethernet Over SONET Under Inaccurate Link-State Information. *IEEE BroadNets'05* (vol. 1, pp. 87 - 96). Boston, MA:.
15. Korkmaz, T., & Kaynak, M. N. (2005). Impacts of Channel Reliability on Topology Control in Multi-hop Wireless Networks. *IEEE VTC 2005* (pp. 1697 - 1701). Dallas:.
14. Zheng, Y., Korkmaz, T., & Dou, W. (2005). Highly Responsive and Efficient QoS Routing Using Pre-and On-demand Computations along with a New Normal Measure. *NETWORKING 2005* (pp. 12). University of Waterloo.
13. Zheng, Y., Korkmaz, T., & Dou, W. (2005). Pareto Optimal based Partition Framework for Two Additive Constrained Path Selection. *The IEEE International Conference on Networking (ICN'05)* (pp. 1-8). Reunion Island:.
12. Zheng, Y., Korkmaz, T., & Dou, W. (2005). Two Additive-Constrained Path Selection in the Presence of Inaccurate State Information. *IEEE IEEE The 1st EuroNGI Conference on Next Generation Internet Networks--Traffic Engineering, (NGI 2005)* (pp. 1-8).
11. Korkmaz, T. (2005). Verifying Physical Presence of Neighbors against Replay-based Attacks in Wireless Ad Hoc Networks. *IEEE ITCC 2005, Wireless Ad Hoc/Sensor Networks and Network Security track* (pp. 704-709). Las Vegas, NV:.

2004

10. Korkmaz, T., & Guntaka, J. (2004). State-path decoupled QoS routing framework. *IEEE GLOBECOM 2004* (vol. 3, pp. 2400 - 2404). Dallas, TX:.

9.   Ahuja, S. S., Korkmaz, T., & Krunz, M. (2004). Minimizing the Differential Delay for Virtually Concatenated Ethernet Over SONET Systems. *ICCCN 2004* (pp. 6). Chicago, IL: IEEE.

2002

8.   Korkmaz, T., & Krunz, M. (2002). Hybrid Flooding and Tree-based Broadcasting for Reliable and Efficient Link-state Dissemination. *IEEE GLOBECOM 2002, High-Speed Networks Symposium* (vol. 3, pp. 2400-2404).

2001

7.   Korkmaz, T., & Krunz, M. (2001). Multi-constrained optimal path selection. *Proceedings of the IEEE INFOCOM 2001 Conference* (vol. 2, pp. 834-843). Anchorage, Alaska:.

2000

6.   Korkmaz, T., M. K., & Tragoudas, S. (2000). An efficient algorithm for finding a path subject to two additive constraints. *Proceedings of the ACM SIGMETRICS 2000 Conference* (vol. 1, pp. 318-327). Santa Clara, CA:.

1999

5.   Korkmaz, T., & Krunz, M. (1999). A randomized algorithm for finding a path subject to multiple QoS constraints. *Proceedings of the IEEE GLOBECOM '99 Conference - Symposium on Global Internet: Application and Technology* (pp. 1694-1698).

4.   Korkmaz, T., & Krunz, M. (1999). Source-oriented topology aggregation with multiple QoS parameters in hierarchical ATM networks. *Seventh International Workshop on Quality of Service (IWQoS '99)* (pp. 137-146). IEEE.

1998

3.   Cicekli, I., & Korkmaz, T. (1998). Generation of simple Turkish sentences with systemic-functional grammar. *Proceedings of the 3rd International Conference on New Methods in Language Processing (NeMLaP-3)* (pp. 165-174).

1997

2.   Cicekli, I., & Korkmaz, T. (1997). Generation of Turkish noun and verbal groups with systemic-functional grammar. *Proceedings of the 6th European Workshop on Natural Language Generation (EWNLG-97)* (pp. 1-6).

1996

1.   Korkmaz, T., & Cicekli, I. (1996). Generation of Turkish verbal groups with systemic-functional grammar. *Proceedings of the 5th Turkish Symposium on Artificial Intelligence and Neural Networks* (pp. 209-219).

Book, Chapter in Scholarly Book-New - Not Peer-Reviewed/Refereed

2010

2.   Akbani, R., & Korkmaz, T. (2010). Applications of Support Vector Machines in Bioinformatics and Network Security. *Application of Machine Learning* (pp. 20). InTech. http://www.intechopen.com/books/application-of-machine-learning/applications-of-support-vector-machines-in-bioinformatics-and-network-security

2003

1.   Van Mieghem, P., Kuipers, F.A., Korkmaz, T., Krunz, M., Curado, M., Monteiro, E., Masip-Bruin, X., Sol-Pareta, J., & Snchez-Lpez, S. (2003). Quality of Service Routing. *Quality of Future Internet Services* (pp. 80-117). EU-COST 263 Final Report, edited by Smirnov et al. in Springer LNCS 2856.

Workshop presentation - Not Peer-Reviewed/Refereed

2019

1.   Korkmaz, T. (2019). Supporting Student Success and Increasing Diversity in Computer Science. *2019 S-STEM Workshop -- Creating Pathways to an Inclusive STEM Workforce*. Washington, DC: AAAS S-STEM. (Presented)

Contracts, Fellowships, Grants, Sponsored Research and Residencies

Grant - Funded

2023

1.   Korkmaz, T., "Increasing Financial Opportunities and Coeducational Utilities for Success in Computer Science (I-FOCUS-CS), PIs/Co-PIs&SHARED CREDIT: Turgay Korkmaz, Lead PD/PI, 80.00%; Larry Clark, Co-PD/PI, 20.00%," Sponsored by Natl Science Fdn, $999,350.00. (April 15, 2018 - March 31, 2023).

Grant - Currently Under Review

2025

2.   Boppana, R. (Principal), & Korkmaz, T. (Supporting), "Increasing Cybersecurity Education at Hispanic Serving Institutions," Sponsored by NSF, $2,500,000.00. (April 15, 2020 - April 14, 2025).

2023

1.   Korkmaz, T., "CNS Core: Small: Source-Path Routing Model for Tuning Proactivity and Reactivity in SDN-based WANs," Sponsored by NSF, $500,000.00. (July 1, 2020 - June 30, 2023).

Grant - Not Funded

2022

7.   Korkmaz, T., "CNS Core: Small: Source-Path Routing in SDN-based WANs, PIs/Co-PIs&SHARED CREDIT: Turgay Korkmaz, Lead PD/PI, 100.00%,"

Sponsored by Natl Science Fdn, $491,793.00. (July 1, 2019 - June 30, 2022).

2021

6. Korkmaz, T., "NeTS: Small: Diversified Routing Services and Resilience in SDN-based WANs, PIs/Co-PIs&SHARED CREDIT: Turgay Korkmaz, Lead PD/PI, 100.00%," Sponsored by Natl Science Fdn, $445,008.00. (July 1, 2018 - June 30, 2021).

2020

5. Korkmaz, T., "NeTS: Small: SDN-based Diversified Routing Services in WANs, PIs/Co-PIs&SHARED CREDIT: Turgay Korkmaz, Lead PD/PI, 100.00%," Sponsored by Natl Science Fdn, $393,278.00. (September 1, 2017 - August 31, 2020).

2019

4. Korkmaz, T., "CSR: Small: Remote Reality based Monitoring in Smart Cities, PIs/Co-PIs&SHARED CREDIT: Turgay Korkmaz, Lead PD/PI, 100.00%," Sponsored by Natl Science Fdn, $365,287.00. (September 1, 2016 - August 31, 2019).

2018

3. Korkmaz, T., "III: Small: Multi-sensory Data Acquisition and Mining in Smart Environments, PIs/Co-PIs&SHARED CREDIT: Turgay Korkmaz, Lead PD/PI, 100.00%," Sponsored by Natl Science Fdn, $361,045.00. (September 1, 2015 - August 31, 2018).

2017

2. Korkmaz, T., "CSR: Small: Collaborative: DETECT: Distributed Traffic Event Detection and Dissemination, PIs/Co-PIs&SHARED CREDIT: Turgay Korkmaz, Lead PD/PI, 100.00%," Sponsored by Natl Science Fdn, $154,000.00. (August 1, 2014 - July 31, 2017).

2015

1. Korkmaz, T., "Graph Mining for BigData Analysis using Cloud Technologies, PIs/Co-PIs&SHARED CREDIT: Turgay Korkmaz, Lead PD/PI, 100.00%," Sponsored by UTSA VPR Office, $20,000.00. (September 1, 2014 - August 31, 2015).

Grant - Withdrawn

2023

1. Korkmaz, T., "Increasing Financial Opportunities and Coeducational Utilities for Success in Computer Science (I-FOCUS-CS), PIs/Co-PIs&SHARED CREDIT: Turgay Korkmaz, Lead PD/PI, 70.00%; Larry Clark, Co-PD/PI, 20.00%; Rajendra Boppana, Co-PD/PI, 10.00%," Sponsored by Natl Science Fdn, $999,775.00. (September 1, 2018 - August 31, 2023).

<u>Presentations</u>

Oral Presentation - Peer-Reviewed/Refereed

<div align="center">

2014
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1.   Korkmaz, T., "Hyper-Sequence Graph Mining in Cloud," Grand Challenges in Engineering and Applied Sciences (GrandEng 2014). (May 16, 2014).

Paper - Peer-Reviewed/Refereed

<div align="center">

2010
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2.   Korkmaz, T., "Batch Forwarding in Wireless Sensor Networks," Milcom 2010, Pages 1-9, IEEE, AFCEA. (November 2010).

1.   Korkmaz, T., & Sarac, K., "Characterizing Link and Path Reliability in Large-Scale Wireless Sensor Networks," IEEE 6th International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob). (October 2010).

Invited Talk - Not Peer-Reviewed/Refereed

<div align="center">

2001
</div>

1.   Krunz, M., & Korkmaz, T., "Computation of QoS routes in the presence of state inaccuracies," 16th IEEE Computer Communications Workshop, Charlottesville, Virginia. (October 2001).

Oral Presentation - Not Peer-Reviewed/Refereed

<div align="center">

2014
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2.   Korkmaz, T., & Yu, X., "Hyper-Sequence Graph Mining on ZeroVM," ZeroVM Project Meeting, RackSpace, Inc. (March 26, 2014).

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2005
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1.   Gong, C., Le, T., Korkmaz, T., & Sarac, K., "Log-based IP Traceback in AS-Level Partial Deployment Scenario," South Central Information Security Symposium (SCISS), Austin, TX, USA. (April 2005).

Paper - Not Peer-Reviewed/Refereed

<div align="center">

2019
</div>

1.   Korkmaz, T., "Comparison of Routing Algorithms with Static and Dynamic Link Cost in SDN," IEEE Consumer Communications & Networking Conference, Las Vegas, USA. (January 13, 2019).

<u>Scholarship/Research/Creative Works Currently in Progress</u>

2.   Korkmaz, T., & Komajwar, S., Consistent Updates in Software-Defined Networking

1.   Korkmaz, T., & Akin, E., QoS issues in SDNs (software defined networks)

TEACHING

Teaching Interests

Broadband Networks and Multimedia Communications, Internet Protocols, Simulation and Performance Evaluation of Computer Systems, Graph and network algorithms, Optimization, Operating Systems, Data Structures and Algorithms

Courses Taught

Graduate
Networks, Simulation, Research Seminar, Operating systems

Undergraduate
Computer Networks , Data Communications, Simulation Techniques, Programming with Engineering Applications, Advanced Programming, Web design

Directed Student Learning

Dissertation Committee Member, "The Usability of Augmented Reality for Learning and Memory." Proposal, (September 17, 2019).
Advised: Brita Munsinger

Dissertation Committee Member, "Machine Learning Approaches to Improve Security and Perormance IoT Devices." Proposal, (September 5, 2019).
Advised: Olumide Kayode

Dissertation Committee Member, "Deep Representation Learning for Person Re-Identification in the Wild." Proposal, (July 16, 2019).
Advised: HENGHENG ZHANG

Dissertation Committee Member, "SECUREING SOFTWARE DEFINED NETWORK INFRASTRUCTURE IN CLOUD DATA CENTERS." Completed, (July 15, 2019).
Advised: Sajad Khorsandroom

Dissertation Committee Chair, "SPRM: Source Path Routing Model for Software Defined Networks." Proposal, (May 8, 2019).
Advised: SHARVARI KOMAJWAR

Dissertation Committee Member, "Improving Cloud Storage Performance With Adaptive
Resource Management." Completed, (May 1, 2019).
Advised: RIDWAN RASHID NOEL

Master's Thesis Committee Member, "Testbed Design For Autonomous Security Testing
of IoT Devices." Completed, (April 26, 2019).
Advised: JEREMY REED

Dissertation Committee Chair, "Routing Algorithms with QoS Guarantees on SDN-based
Network." Completed, (October 26, 2018).
Advised: Erdal Akin

Dissertation Committee Member, "Performance Prediction of Parallel Applications."
Completed, (May 9, 2018).
Advised: Rodrigo D. Escobar Palacios

Dissertation Committee Member, "Performance And Accuracy Analysis Of Programs
Using Approximation Techniques." Completed, (November 29, 2017).
Advised: Riad Akram

Master's Non-Thesis Committee Member, "Handling Controller Saturation Attacks in
SDN." Completed, (November 12, 2017).
Advised: Rajasekhar Chaganti

Dissertation Committee Member, "Detecting Memory Model Bugs in Multi-Core and
Many-Core Systems." Completed, (October 25, 2017).
Advised: Mohammad M. Islam

Dissertation Committee Member, "Performance Prediction of Parallel Applications."
Proposal, (September 6, 2017).
Advised: Rodrigo D. Escobar Palacios

Master's Non-Thesis Committee Member, "Server Virtualization and Real Time
Application." Completed, (July 28, 2017).
Advised: Amandeep Sokhi

Dissertation Committee Member, "A Holistic Approach Using Honey Communities For
Cyber Event Detection And Protection In Communities And Large Distributed
Organizations." Completed, (April 17, 2017).
Advised: James R. Rutherford

Dissertation Committee Member, "Live Migration of Overlay Software Defined
Networks in Virtual Data Centers." Proposal, (January 17, 2017).
Advised: Sajad Khorsandroom

Dissertation Committee Chair, "Routing Algorithms with QoS Guarantees on SDN-based Network." Proposal, (January 11, 2017).
Advised: Erdal Akin

Dissertation Committee Member, "APPROXIMATING APPLICATION PERFORMANCES IN CLOUD DATA CENTERS AND SIMULATED MACHINES." Completed, (November 29, 2016).
Advised: Mohammad Shahedul Islam

Dissertation Committee Member, "Detecting Sequential Consistency Violations in Multi-Core and Many-Core Systems." Proposal, (October 28, 2016).
Advised: Mohammad M. Islam

Dissertation Committee Member, "Performance and Accuracy Analysis of Programs Using Approximate Techniques." Proposal, (October 6, 2016).
Advised: Riad Akram

Master's Non-Thesis Committee Member, "Unsplittable Flow Problems in Computer Networks." Completed, (April 18, 2016).
Advised: Narender Soorineeda

Dissertation Committee Member, "SYSTEM PERFORMANCE ANALYSIS AND GUARANTEE THROUGH WORKLOAD." Completed, (December 7, 2015).
Advised: Mohammad Shahedul Islam

Master's Non-Thesis Committee Member, "Multicast Routing." Completed, (November 4, 2015).
Advised: Mohand Akli Guiddir

Dissertation Committee Member, "A HOLISTIC APPROACH USING HONEY COMMUNITIES FOR CYBER EVENT DETECTION." Proposal, (August 25, 2015).
Advised: James R. Rutherford

Dissertation Committee Member, "An Elastic Mixed-Criticality Scheduling Framework For Cyber-Physical Systems." Completed, (August 4, 2015).
Advised: Hang Su

Dissertation Committee Member, "Security Analysis of Multimedia Communication Protocols in Traditional and Emerging Models." Completed, (July 31, 2015).
Advised: Ali Tekeoglu

Dissertation Committee Member, "Machine Learning and Graph Theoretical Approaches Toward Precise Disease Classification, Prognosis and Treatment." Completed, (June 11, 2015).
Advised: Md Jamiul Jahid

Dissertation Committee Member, "The Relentless Execution Model for
      Task-uncoordinated Parallel Computation in Distributed Memory Environments."
      Completed, (May 18, 2015).
Advised: Lucas Wilson

Dissertation Committee Chair, "Hyper-Sequence-Graph Mining." Completed, (April 28,
      2015).
Advised: Xinran Yu

Dissertation Committee Chair, "Task Allocation and Path-Planning in Wireless Robot
      Sensor Networks." Completed, (April 20, 2015).
Advised: Andrew Wichmann

Master's Non-Thesis Committee Member, "A Study of Delauney Triangulation
      Methods." Completed, (April 16, 2015).
Advised: Riley Foster

Master's Non-Thesis Committee Member, "Brian-Machine Interface Control - Science?
      Or still Science Fiction." Completed, (December 11, 2014).
Advised: Mark Corsi

Dissertation Committee Member, "Machine Learning and Graph Theoretical Approaches
      Toward Precise Disease Classification, Prognosis and Treatment." Proposal,
      (April 30, 2014).
Advised: Md Jamiul Jahid

Master's Non-Thesis Committee Chair, "Software Defined Networks." Completed, (April
      23, 2014).
Advised: Erdal Akin

Master's Non-Thesis Committee Chair, "Realism in VANET Simulation." Completed,
      (April 16, 2014).
Advised: Nathaniel Kyle Ng

Dissertation Committee Chair, "Hyper-Sequence-Graph Mining." Proposal, (January 7,
      2014).
Advised: Xinran Yu

Dissertation Committee Member, "Securing Multimedia Communication in Traditional
      and Emerging Architectures." Proposal, (December 19, 2013).
Advised: Ali Tekeoglu

Dissertation Committee Chair, "Task Allocation and Path-Planning in Wireless Robot
      Sensor Networks." Proposal, (December 12, 2013).
Advised: Andrew Wichmann

Dissertation Committee Member, "The Relentless Execution Model for Task-uncoordinated Parallel Computation in Distributed Memory Environments." Proposal, (December 10, 2013).
Advised: Lucas Wilson

Dissertation Committee Member, "Mobile Assisted Security Framework For wireless Sensor Networks." Completed, (December 6, 2013).
Advised: Baris Tas

Master's Thesis Committee Member, "Controlling and Location Monitoring of a Mobile Robot for Android Tablet." Completed, (December 2, 2013).
Advised: Armondo Ortega

Master's Thesis Committee Member, "An Algorithm for Minimizing Firewall Policies, Diverse Firewall Design, and Policy Queries." Completed, (November 21, 2013).
Advised: Mohammed Al Qurashi

Dissertation Committee Member, "An Elastic Mixed - Criticality Scheduling Framework for Cyber - Physical Systems." Proposal, (August 26, 2013).
Advised: Hang Su

Master's Non-Thesis Committee Chair, "Content-Based File Type Identification." Completed, (July 30, 2013).
Advised: Orhan Abar

Master's Thesis Committee Member, "Multiple Sensor Data Formats Supporting Power Consumption Assessments for Smartphone-Based M-Health Applications." Completed, (July 24, 2013).
Advised: Rodrigo Escobar Palacios

Dissertation Committee Member, "Energy-Efficient Secure and Anonymous Communications Protocol for Wireless Sensor Networks." Completed, (May 3, 2013).
Advised: Pengjun Pan

Master's Thesis Committee Member, "Assessment of Run-Time Malware Detection Through Critical Function Hooking and Process Introspection Against Real-World Attacks." Completed, (April 25, 2013).
Advised: Mark Griffin

Master's Thesis Committee Member, "Technical Security Issues in Cloud Computing." Completed, (April 24, 2013).
Advised: Kadri Berk Aktan

Master's Thesis Committee Member, "Cyber Crimes." Completed, (April 24, 2013).

Advised: Mshari Aljumaie

Master's Thesis Committee Chair, "Issues with Password Security and Alternatives."
        Completed, (April 23, 2013).
Advised: Mohammad Chowdhury

Master's Thesis Committee Member, "Review of GPS Technology and Appliations for
        Location Tracking." Completed, (April 15, 2013).
Advised: Salvador J. Rodriguez

Master's Thesis Committee Chair. Completed, (December 2012).
Advised: Badri Sampath

Dissertation Committee Member, "Botnets Analysis and Detection Methods Based on
        Network Behavior." Completed, (November 2012).
Advised: Areej AL-BATAINEH

Master's Thesis Committee Member, "Towards System Security Using Trusted Hardware
        and/or Software." Completed, (November 2012).
Advised: Ibrahim Althomali

Master's Thesis Committee Member, "Annotation Based Source to Source
        Transformation of MPI Application for Performance Optimization." Completed,
        (November 2012).
Advised: Md. Ziaul Haque

Master's Thesis Committee Member, "Software Define Networking." Completed,
        (November 7, 2012).
Advised: Kevser Ovaz

Master's Thesis Committee Member, (August 27, 2012).
Advised: George Pandzik

Master's Thesis Committee Chair, "Connectivity Base Localization Techniques in
        Wireless Sensor Networks." (May 10, 2012).
Advised: Charles Zinsmeyer

Master's Thesis Committee Member, "Secure Path Validation and Compromised Node
        Detection Using a Mobile Robot in WSN." (April 30, 2012).
Advised: Dipti Dasari Naga Santoshi

Master's Thesis Committee Chair, "Rescue Systems Using Mobile Robot and Sensor
        Network." (April 26, 2012).
Advised: Burcu Demirelli Okkalioglu

Master's Thesis Committee Chair, "Secure and Reliable Deduplication in Cloud Storage."

(April 26, 2012).
Advised: Faisel Elramalli

Dissertation Committee Member, "Improving The Spectrum Usage Efficiency Of
        Personal Area Devices Using Cognitive Radio Technology." (April 24, 2012).
Advised: Andre Mayers

Dissertation Committee Member, "Mobile Assisted Security Framework in Wireless
        Sensor Networks." (April 23, 2012).
Advised: Baris Tas

Master's Thesis Committee Chair, "Internet Traffic Classification." (April 17, 2012).
Advised: Murat Okkalioglu

Dissertation Committee Member, "Energy-Efficient Secure and Anonymous
        Communication Protocols for Wireless Sensor Networks." (December 9, 2011).
Advised: Pengjun Pan

Master's Thesis Committee Member, (November 28, 2011).
Advised: Alekya Reddy

Master's Thesis Committee Chair, "Cognitive Radio Network." (November 22, 2011).
Advised: Javed Kaiser

Advisor, "Reliability and security in scale-free networks." Completed, (June 2011).
Advised: Husnu Narman

Master's Thesis Committee Chair, "Social Network and its Security." (April 2011).
Advised: Hasan Ahmed

Master's Thesis Committee Chair, "Effect of Characteristic of Networks to Node
        Placement." (April 12, 2011).
Advised: Husnu Narman

Master's Thesis Committee Member, (November 23, 2010).
Advised: Tanzir Musabbir

Dissertation Committee Member, "Protecting Cryptographic Keys and Functions Against
        Software-Based Attacks." (November 11, 2010).
Advised: PAUL PARKER

Dissertation Committee Member, (May 2010).
Advised: Areej Bataineh

Master's Thesis Committee Chair, (May 2010).
Advised: A.T. Fouty

Dissertation Committee Member, "Nonlinear Transform Approach To The Reduction Of Peak-To-Average Power Ratio In Orthogonal Frequency Division Multiplexing (Ofdm) Systems." (April 2010).
Advised: Serkan Dursun

Master's Thesis Committee Chair, (April 21, 2010).
Advised: Ramakrishna Annamaneni

Master's Thesis Committee Chair, (December 9, 2009).
Advised: Martin Kail

Dissertation Committee Member, (December 3, 2009).
Advised: Veysel Demir

Master's Thesis Committee Member, (October 26, 2009).
Advised: Edward A. Salinas

Dissertation Committee Member, (August 21, 2009).
Advised: Veysel Demir

Dissertation Committee Chair, "Defending against Malicious Nodes in Closed MANETs through Packet Authentication and a Hybrid Trust Management System." (June 19, 2009).
Advised: Rehan Akbani

Dissertation Committee Member, (May 4, 2009).
Advised: Xu (Kevin) Su

Master's Thesis Committee Member, (April 24, 2009).
Advised: Mark Smith

I have served more than 40 committees similar to the above ones., (2002 - 2008).

Academic Advising

2018   Advised 2 Graduate Students, 20 Undergraduate Students

Other Instructional Activities

2013 - Present   Course coordinator, I coordinate CS 2123 Data structures with multiple sections. I also help instructors to prepare SACS assessment report.

2019   Publications by Students, Akin, E., & Korkmaz, T. (2019). Comparison of Routing Algorithms With Static and Dynamic Link Cost in Software

Defined Networking (SDN). *IEEE Access, Vol. 7*, pp.148629 - 148644.

2019	Publications by Students, Akin, E., & Korkmaz, T. (2019). Link-prioritized Network State Information Collection in Multi-controlled SDN. *ICC 2019 - 2019 IEEE International Conference on Communications (ICC)* (pp. 1-6). IEEE.
2019	Publications by Students, Akin, E., & Korkmaz, T. (2019). Rate-based Dynamic Shortest Path Algorithm for Efficiently Routing Multiple Flows in SDN. *ICC 2019 - 2019 IEEE International Conference on Communications (ICC)* (pp. 1-6). IEEE.
2019	Publications by Students, Akin, E., & Korkmaz, T. (2019). Comparison of Routing Algorithms with Static and Dynamic Link Cost in SDN. IEEE Consumer Communications & Networking Conference (IEEE CCNC) (pp. 1-8). Las Vegas: IEEE.
2018	Publications by Students, Komajwar, S., & Korkmaz, T. (2018). Segmented Source Routing for Handling Link Failures in Software Defined Network. The 16th IFIP International Conference on Wired & Wireless Internet Communications (WWIC 2018) (pp. 146-158). Springer.
2018	Publications by Students, Wichmann, A., Korkmaz, T., & Tosun, A. S. (2018). Robot Control Strategies for Task Allocation with Connectivity Constraints in Wireless Sensor and Robot Networks. IEEE Transactions on Mobile Computing, 17(6), 1429 - 1441.
2018	Publications by Students, Komajwar, S., & Korkmaz, T. (2018). Challenges and Solutions to Consistent Data Plane Update in Software Defined Networks. Computer Communications (COMCOM), 130, 50-59. www.sciencedirect.com/journal/computer-communications/vol/130/suppl/C
2017	Publications by Students, Akin, E., & Korkmaz, T. (2017). Routing Algorithm for Multiple Unsplittable Flows Between Two Cloud Sites with QoS Guarantees. IEEE ICNC'17 (pp. 917 - 923). Santa Clara, CA, USA: IEEE.
2017	Publications by Students, Yu, X., Lilburn, T., Cai, H., Gu, J., Korkmaz, T., & Wang, Y. (2017). PageRank influence analysis of protein-protein association networks in the malaria parasite Plasmodium facliparum. International Journal of Computational Biology and Drug Design (IJCBDD), 10(2), 137-156. www.inderscience.com/info/ingeneral/forthcoming.php?jcode=ijcbdd

2017	Publications by Students, Yu, X., Zhang, H., Lilburn, T., Cai, H., Gu, J., Korkmaz, T., & Wang, Y. (2017). Transcriptomic and network analyses combine to identify genes that drive the red blood cell cycle of Plasmodium falciparum. International Journal of Data Mining and Bioinformatics (IJDMB), 18(3), 179-195. www.inderscienceonline.com/doi/abs/10.1504/IJDMB.2017.087157
2017	Publications by Students, Akin, E., & Korkmaz, T. (2017). An Efficient Binary-Search Based Heuristic for Extended Unsplittable Flow Problem. IEEE ICNC'17 (pp. 831 - 836). Santa Clara, CA, USA: IEEE.
2016	Publications by Students, Yu, X., Zhang, H., Lilburn, T., Cai, H., Gu, J., Korkmaz, T., & Wang, Y. (2016). Just-in-time expression of influential genes in the cellular networks of the malaria parasite Plasmodium falciparum during the red blood cycle. (pp. 1-6 (acceptance rate 19%)). The IEEE International Conference on Bioinformatics and Biomedicine (BIBM). cci.drexel.edu/ieeebibm/bibm2016/
2015	Publications by Students, Wichmann, A., & Korkmaz, T. (2015). Smooth Path Construction and Adjustment for Multiple Mobile Sinks in Wireless Sensor Networks. Computer Communications, 72, 93-106. www.sciencedirect.com/science/article/pii/S0140366415002157
2015	Course coordinator, I have coordinated CS 2073 Programming with Eng App. (two sections).
2015	Peer observer, I peer observed Dr. Lama two times, one in Spring and one in Fall.
2015	Publications by Students, Yu, X., Korkmaz, T., Lilburn, T., Cai, H., Gu, J., & Wang, Y. (2015). Heavy path mining of protein-protein associations in the malaria parasite. Methods, 83, 63-70. http://www.sciencedirect.com/science/article/pii/S1046202315001486
2015	Publications by Students, Yu, X., & Korkmaz, T. (2015). Heavy path based super-sequence frequent pattern mining on web log dataset. Artificial Intelligence Research, 1-12. http://dx.doi.org/10.5430/air.v4n2p1
2015	Publications by Students, Yu, X., & Korkmaz, T. (2015). Hypergraph querying using structural indexing and layer-related-closure verification. Knowledge and Information Systems, 1-29. http://dx.doi.org/10.1007/s10115-015-0829-4
2015	Publications by Students, Yu, X., Lilburn, T., Cai, H., Gu, J., Korkmaz,

T., & Wang, Y. (2015). PageRank influence analysis of protein-protein association networks in the malaria parasite Plasmodium facliparum (pp. 1-34). Indianapolis, IN, USA: ICIBM 2015. watson.compbio.iupui.edu/yunliu/icibm/

2015	Publications by Students, Wichmann, A., & Korkmaz, T. (2015). Analysis of deployment and movement policies in wireless sensor and robot networks. IEEE WoWMoM 2015 (pp. 1-9).
2014	Publications by Students, Wichmann, A., Korkmaz, T., & Tosun, A. S. (2014). Minimum Hop and/or Minimum Distance Robot Movement with Connectivity Constraints in WRSNs. IEEE Globecom 2014 - Ad Hoc and Sensor Networking Symposium (pp. 1-7).
2014	Publications by Students, Yu, X., Korkmaz, T., Lilburn, T., Cai, H., Gu, J., & Wang, Y. (2014). Heavy Path Mining Reveals Novel Protein-Protein Associations in the Malaria Parasite Plasmodium falciparum. IEEE International Conference on Bioinformatics and Biomedicine (BIBM) (pp. 107-112). (acceptance rate 19%).
2014	Publications by Students, Yu, X., & Korkmaz, T. (2014). Finding the Most Evident Co-Clusters on Weblog Dataset Using Frequent Super-Sequence Mining. IEEE 15th International Conference On Information Reuse And Integration (IRI) (pp. 1-8). http://www.pitt.edu/~iri2014/
2014	Publications by Students, Yu, X., & Korkmaz, T. (2014). Hyper Sequence Pattern Mining on ADLs. Data Science for Social Good Workshop at KDD (pp. 1-4). ACM. http://dssg.uchicago.edu/kddworkshop/papers/yu.pdf
2014	Publications by Students, Wichmann, A., Demirelli Okkalioglu, B., & Korkmaz, T. (2014). The integration of mobile (tele) robotics and wireless sensor networks: A survey. Computer Communications, 51, 21-35. http://www.sciencedirect.com/science/article/pii/S0140366414002266
2013	Publications by Students, Yu, X., & Korkmaz, T. (2013). Super-sequence Frequent Pattern Mining on Sequential Dataset. IEEE International Conference on Big Data (pp. 52 - 59).
2013	Publications by Students, Narman, H., Korkmaz, T., & Tek, S. (2013). Utilizing distance distribution in determining topological characteristics of multi-hop wireless networks. IEEEE International Conference on Computing, Networking and Communications (ICNC) (pp. 149-154). IEEE.

2012	Publications by Students, Andrew Wichmann, Justin Chester, Turgay Korkmaz, Smooth Path Construction for Data Mule Tours in Wireless Sensor Networks IEEE GLOBECOM 2012
2012	Publications by Students, Rehan Akbani, Turgay Korkmaz and G. V. S. Raju, Mobile Ad-Hoc Networks Security, Recent Advances in Computer Science and Information Engineering Lecture Notes in Electrical Engineering, 2012, Volume 127, 659-666, DOI: 10.1007/978-3-642-25769-8_92
2012	Publications by Students, Charles J. Zinsmeyer and Turgay Korkmaz, A Comparative Review of Connectivity-Based Wireless Sensor Localization Techniques, Journal of Internet Services and Information Security (JISIS), volume: 2, number: 1/2, pp. 59-72. link
2012	Publications by Students, Navid Pustchi and Turgay Korkmaz, Improving packet reception rate for mobile sinks in wireless sensor networks, 2012 IEEE International Symposium on World of Wireless, Mobile and Multimedia Networks (WoWMoM), Publication Year: 2012 , Page(s): 1 - 9
2012	Publications by Students, Rehan Akbani, Turgay Korkmaz, GVS Raju, EMLTrust: An Enhanced Machine Learning Based Reputation System, Ad Hoc NetworksVolume 10, Issue 3, Pages 435-457
2011	Course Development, I significantly improved my course materials for CS2213 Advance Programing in 2011.
2011	Publications by Students, Drew Wichmann, Justin Chester, Turgay Korkmaz, Tour Planning for UAV Data Mules in Border Wireless Multimedia Sensor Networks, poster presentation in UTSA CoS Research Conference. http://utsa.edu/sciences/research_conference/
2011	Course Development, I developed significant amount of powerpoint materials for CS1143 Web Design in Fall 2011.
2011	Publications by Students, Navid Pustchi and Turgay Korkmaz, Improving reliability in wireless sensor networks using multiple radio, poster presentation in UTSA CoS Research Conference, Sept 30, 2011.
2011	Publications by Students, Rehan Akbani and Turgay Korkmaz, "Enhancing Role Based Trust Management with a Reputation System for MANETs," EURASIP Journal on Wireless Communications and Networking, 2011:90 doi:10.1186/1687-1499-2011-90 http://jwcn.eurasipjournals.com/content/2011/1/90

2011	Proctor for the Fall PhD Qualifying Examination
2011	Publications by Students, Mark Griffin and Turgay Korkmaz, "Distributed verification of global multiple disjoint paths in mobile wireless networks," The 7th International Wireless Communications and Mobile Computing Conference (IWCMC), IEEE, pp.666-670, doi: 10.1109/IWCMC.2011.5982626
2011	Publications by Students, Rehan Akbani, Turgay Korkmaz and G.V.S. Raju, Mobile Ad-hoc Networks Security, The 2nd World Congress on Computer Science and Information Engineering (CSIE 2011), pg 1-4, Changchun, China. http://world-research-institute.org/conferences/CSIE/2011/index.html
2010	Course Development, I developed significant amount of powerpoint materials for CS2213 Advance Programing in Fall 2010.
2010	Publications by Students, Rehan Akbani and Turgay Korkmaz. Applications of Support Vector Machines in Bioinformatics and Network Security, pp. 1-20, Application of Machine Learning, Yagang Zhang (Ed.), ISBN: 978-953-307-035-3, InTech, Available from: http://www.intechopen.com/articles/show/title/applications-of-support-vector-machines-in-bioinformatics-and-network-security
2010	Proctor for the Fall PhD Qualifying Examination
2009	Publications by Students, Rehan Akbani, Turgay Korkmaz and G.V.S. Raju, A Hybrid Trust Management System for Automated Fine-Grained Access Control, Proceedings of MILCOM 2009, Sponsored by Raytheon, IEEE, AFCEA
2009	Proctor for the Fall PhD Qualifying Examination

SERVICE

Department Service

2018 - Present	Committee Chair, CS Scholarship committee, CS-UTSA.
2017 - Present	Coordinator, Course Coordinator (CS 2123-Data Structures), CS-UTSA.
2017 - Present	Committee Chair, Curriculum committee, UTSA.
2017 - Present	UGAR, CS-UTSA.

2014 - Present   Class Scheduler, UTSA.

2017 - 2018   Committee Member, PhD Qualification Exam Committee, CS-UTSA.

2018   Faculty Advisor, CS Information Session for New CS Students, CS-UTSA. In Summer 2018, I had 1-hour weekly orientations for new undergraduate students for 9 weeks.

2016 - 2017   Committee Member, Faculty Award Committee.

2017   Faculty Advisor, CS Information Session for New CS Students, UTSA-CS. In Summer 2017, I had 1-hour weekly orientations for new undergraduate students for 9 weeks.

2015 - 2017   Committee Chair, Lab and Facility committee, UTSA.

2015 - 2016   Committee Member, FRC.

2013 - 2015   Committee Member, Lab and Facility committee, UTSA.

2013 - 2015   Committee Member, PhD Qualification Exam Committee, UTSA.

2013 - 2014   Committee Chair, Faculty Search Committee, UTSA.

2012 - 2013   Committee Member, Faculty Search Committee, UTSA.

2011 - 2012   Committee Member, Graduate Studies Committee, UTSA - CS. In this committee, we do the followings: Review of applications for admission to the masters program, Approval of Programs of Studies and changes, Certification of removal of conditions of admission, Review of graduate student progress, Approval of M.S. Supervisory Committees, Assignment of graduate advisors, Approval of student petitions to deviate from the usual requirements.

2009 - 2011   Committee Member, Communications Committee, UTSA - CS. In this committee, I am specifically in charge of coordinating our efforts and participating in various events such as Science Fairs, Roadrunner days, etc. I organized CS Tables for ExxonMobil Texas Science and Engineering Fair, Roadrunner Days, UTSA Day, Harmony Schools Career Day. In all these events, we meet with students, gave them information and fliers about our dept and tried to motivate them to pursue CS at UTSA. We also had lab tours on Roadrunner Days..

2009 - 2011   Committee Member, Graduate Recruitment Committee, UTSA - CS. In this committee, I helped developing and executing Graduate

Recruitment Plan . Specifically, I was in charge of figuring out how GRE search service works. I created an account for our department and searched GRE database. In Fall, we conducted the search by targeting national and international students who might be interested in our PhD program.

2005 - 2007	Committee Member, Curriculum committee, UTSA.
2003 - 2005	Committee Member, MS committee, UTSA.
2002 - 2003	Committee Member, Lab committee, UTSA.
2002 - 2003	Committee Member, PhD committee, UTSA.

College Service

2019 - 2021	Committee Member, CFRAC, UTSA. Evealuate tenure cases, evaluate teaching award applications
2018	Judge, COS Conference, UTSA.
2016	Judge, COS Conference, UTSA.
2015	Judge, COS Conference, UTSA.
2013	Judge, COS Conference, UTSA.
2012 - 2013	Committee Member, CFRAC, UTSA. Evealuate tenure cases, evaluate teaching award applications
2012	Committee Member, Doctoral Fellowships Committee, UTSA. review and rank 14 PhD fellowship applications
2012	Judge, COS Conference, UTSA.
2009 - 2011	Committee Member, College Policy Committee, UTSA.
2011	Judge, COS Conference, UTSA.
2003 - 2004	Committee Member, Budget Committee, UTSA.

University Service

2018 - 2019	Committee Member, Faculty Senate Executive Committee, UTSA.
2018 - 2019	Committee Chair, Faculty Senate standing committee: University Curriculum Committee (UCC), UTSA.
2013 - 2019	Committee Member, Faculty Senate, UTSA.
2015 - 2018	Committee Member, Faculty Senate standing committee: University Curriculum Committee (UCC), UTSA.
2018	Task Force Member, President's Classroom to Career Task Force.
2016 - 2017	Committee Member, President's Distinguished Achievement Awards: Excellence in Community Service committee, UTSA.
2002 - 2017	Faculty Advisor, Two Student Associations (TURKSA, SAID), UTSA.
2015	Committee Member, President's Distinguished Achievement Awards: Excellence in Community Service committee, UTSA.
2013 - 2015	Committee Member, Faculty Senate standing committee: Academic Policy and Requirements Committee (APR), UTSA.
2014	Committee Chair, President's Distinguished Achievement Awards:Excellence in Community Service committee, UTSA.
2013 - 2014	Committee Member, Faculty Senate Executive committee, UTSA.
2013	Committee Member, President's Distinguished Achievement Awards:Excellence in Community Service committee, UTSA. Selection committee for the 2013 President's Distinguished Achievement Awards
2011 - 2013	Committee Member, Grievance Committee, UTSA.
2012	Committee Member, President's Distinguished Achievement Awards Committee, UTSA. Selection committee for the 2012 President's Distinguished Achievement Awards.
2011	Committee Member, President's Distinguished Achievement Awards Committee, UTSA. Selection committee for the 2011 President's Distinguished Achievement Awards.

Professional Service

2011 - Present	Editor, Journal Editor, Journal of Internet Services and Information Security (JISIS).

2008 - Present	Editor, Journal Editor, Computer Networks (Elsevier).
2007 - Present	Editor, Book, Far East Journal of Electronics and Communications, Pushpa Publishing House.
2002 - Present	Committee Member, Several PhD and MS supervising committees at the University of Texas at San Antonio.
2019 - 2020	TPC member, 2020 IEEE International Conference on Communications (ICC): Ad Hoc and Sensor Networks Symposium.
2018 - 2019	TPC member, IEEE ICC'19 AHSN Symposium.
2019	Reviewer, Journal Article, Transactions on Mobile Computing.
2018	TPC member, 2018 IEEE 10th International Conference on Engineering Education (ICEED).
2018	Reviewer, Journal Article, IEEE Communications Letters.
2017 - 2018	TPC member, INFOCOM18 WKSHPS IECCO 2018.
2017 - 2018	TPC member, IEEE ICC'18 AHSN (Ad-hoc and Sensor Networking Symposium).
2016 - 2017	TPC member, The 2017 IEEE Conference on Computer Communications Workshops (INFOCOM WKSHPS): IECCO: Integrating Edge Computing, Caching, and Offloading in Next Generation Networks.
2017	Reviewer, Ad Hoc Reviewer, NSF. Reviewed "Operationalizing SDN" workshop proposal
2016	TPC member, Globecom'16 - CSSMA. review 3-4 papers
2016	Reviewer, Grant Proposal, Kentucky Science & Engineering Foundation.
2016	TPC member, IEEE WCNC 2016 - Track 3 - Mobile and Wireless Networks. review 3-4 papers
2016	TPC member, IEEE ICC 2016 - Mobile and Wireless Networking Symposium (ICC'16 MWN). review 3-4 papers
2015	TPC member, IEEE ICC'15 AHSN (Ad-hoc and Sensor Networking

Symposium). review 3-4 papers

2015	Session Chair, IEEE WOWMOM 2015 Conference.
2015	Reviewer, Conference Paper, ICCSPA'15 (Communications). https://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=34841
2014	TPC member, IEEE ICC'14 AHSN (Ad-hoc and Sensor Networking Symposium).
2014	Judge, I-SWEEEP Science Fair.
2013	TPC member, IEEE GLOBECOM 2-13 - AHSN.
2013	TPC member, ICCCN 2013 MRTM (Multimedia, Real-Time Networking, and Network Modeling Track.
2013	Judge, I-SWEEEP Science Fair.
2012	TPC member, ICC'12 AHSN (IEEE ICC 2012 - Ad-hoc and Sensor Networking Symposium).
2012	TPC member, International Conference on Communications, Computers and Applications.
2012	TPC member, IEEE ICC MobiCC'12. Workshop on Mobile Cloud Computing (MobiCC'12) held in the conjunction with IEEE International Conference on Communications in China 2012 (ICCC 12), http://network.cs.tsinghua.edu.cn/mobicc/
2012	TPC member, ICCCN12 -- Network Algorithms and performance Evaluation Track. (http://www.icccn.org/icccn12/)
2012	Judge, I-SWEEEP Science Fair.
2011	Reviewer, Journal Article, 2011 UTSA COS Research Conference.
2010 - 2011	IWCMC2011-Federated Wireless Sensors (Federated Wi, TPC.
2011	Judge, I-SWEEEP Science Fair.
2011	Program Organizer, The Institute of Academic Studies (IAS). Helped in organizing IAS luncheon where Dr. Ricardo Romo was the keynote speaker

2011	Reviewer, Grant Proposal, Sam Houston State University. Evaluate Research Grant Proposal
2010	TPC member, GC10 - AHSN (IEEE Globecom 2010 - Ad-hoc and Sensor Networking Symposium).
2010	Judge, I-SWEEEP Science Fair.
2003 - 2010	Reviewer, Journal Article, IEEE/ACM Transactions on Networking, Computer Networks, Computer Communications, Networks, IEEE Transactions on Wireless Comm, IEEE Communications Magazine, JOURNAL OF COMMUNICATIONS AND NETWORKS, IEEE Communications Letters, Wireless Networks, Multimedia Systems.
2009	Judge, I-SWEEEP Science Fair.
2009	Judge, SST Schools' school-wide science fairs.
2009	Reviewer, Conference Paper, ICCCN 2009, Network Algorithms and Performance Evaluation(NAPE) track.
2009	Session Chair, IEEE ICCCN 2009. NAPE 2 session on Wednesday
2009	TPC member, ICC'2009 Ad-Hoc and Sensor Networking Symposium, ICC'2009--AHSNET.
2008	Judge, I-SWEEEP Science Fair, Houston, TX.
2008	TPC member, IEEE Globecom 2008 Computer and Communications Network Security Symposium, New Orleans, LA. GC'08 CCNS
2008	TPC member, IEEE International Conference on Wireless and Mobile Computing, Networking and Communications). WiMob'2008
2008	TPC member, IEEE ICC'08 INS.
2008	Editor, Book, The IFIP Networking 2008 Conference.
2007	TPC member, ICC 2007 Computer and Communications Network Security Symposium.
2007	TPC member, IEEE Globecom 2006 - Network Security Systems.
2007	TPC member, IEEE GLOBECOM 2007, Information, Network, and Communications Security track in the General Symposium, Washington DC.

2007	TPC member, The 32nd IEEE Conference on Local Computer Networks (LCN).
2007	Program Co-chair, The 2nd International Workshop on Evolution toward Next Generation Internet (ENGI), Part of ICCS 2007 Chinese Academy of Sciences. http://network.cs.tsinghua.edu.cn/engi/
2007	TPC member, The 5th IEEE Workshop on End-to-End Monitoring Techniques and Services (E2EMON).
2007	TPC member, The IFIP Networking 2007 Conference, Atlanta, Georgia.
2007	TPC member, The 3rd International Conference on Embedded Software and Systems (ICESS 2007).
2006	Judge, School of Science and Technology (SST) Science Fair.
2006	TPC member, The IEEE 20th International Conference on Advanced Information Networking and Applicationsm (AINA 2006).
2006	Editor, Book, The first international Workshop on Mobile Services and Personalized Environments (MSPE'06),
2006	Program Co-chair, Workshop on Evolution toward Next Generation Internet (ENGI), Part of ICCS 2006 University of Reading. http://netlab.cs.tsinghua.edu.cn/~engi2006
2006	TPC member, IEEE INFOCOM 2006 Conference.
2005	Session Chair, IEEE VTC 2005-Fall, Security, Multimedia and QoS support, Dallas.
2005	TPC member, The Symposium on Mobile Computing of the IEEE WirelessCom 2005.
2005	TPC member, IADIS Virtual Multi Conference on Computer Science and Information Systems (MCCIS 2005).
2005	TPC member, IEEE INFOCOM 2005 Conference.
2005	Judge, Alamo Regional Academy of Science.
2004	TPC member, International Workshop on Network Design and Architecture (IWNDA) 2004,

2004	Program Co-chair, ACM Symposium on Applied Computing (SAC 2004), Special Track on Computer Networks (CN).
2004	TPC member, IEEE INFOCOM 2004 Conference.
2003	Reviewer, Journal Article, Computer Networks.
2003	Program Co-chair, ACM Symposium on Applied Computing (SAC 2003), Special Track on Parallel and Distributed Systems and Networking, Melbourne, Florida.

Public Service

2002 - Present	Officer, President/Elect/Past, Riverwalk Education Foundation, Inc., A non-profit organization operating K-12 charter schools in Texas. Riverwalk Education Foundation, a non-profit organization, operates four charter schools named as School of Science and Technology in Texas, grades K-12. www.ssttx.org
2016 - 2017	Officer, Treasurer, Leon Valley Home Owner Association (HOA).

Awards, Honors, and Biographical Listings

2019	Outstanding Achievement in Service, UTSA Department of Computer Sciences
2018	Certification of Appreciation in recognition of 15 years of employment at UTSA
2017	Certificate of Teaching Excellence, UTSA College of Sciences
2016	Certification of Appreciation in recognition of service to UTSA Faculty Senate
2015	Certificate of Teaching Excellence, UTSA College of Sciences
2015	Richard S. Howe Outstanding Undergraduate Teaching, UTSA College of Sciences
2013	Certificate of Excellence in Recognition for Demonstrated Excellence in Teaching, UTSA College of Sciences
2012	Certification of Appreciation for contributions to UTSA student organizations

2011	Certification of Appreciation for contributions to UTSA student organizations
2010	Certificate of Excellence in Community Service, College of Sciences, UTSA
2010	Certification of Appreciation for contributions to UTSA student organizations
2010	UTSA President's Distinguished Achievement Award for Recognition of Excellence in Community Service (tenured), UTSA
2006	Listed in Who's Who of Emerging Leaders
2006	Certification of Appreciation for contributions to UTSA student organizations
2005	Listed in Who's Who in American Education
2005	IEEE Certification of Appreciation for contributions to IEEE VTC2005-Fall
2005	Recognition for contributions to UTSA student organizations
2005	Certificate of Appreciation, Alamo Regional Academy of Science
2004	Advisor Appreciation, University of Texas at San Antonio
2003	ACM Certificate of Appreciation for contributions to ACM SAC 2003
2002	Outstanding contributions and efforts, Daisy Science Academy
2000	Registration waiver, IEEE IPCCC 2000, Phoenix, AZ ($200)
2000	Travel award, ACM SIGMETRICS 2000, Santa Clara, CA ($700)
1998	Graduate Tuition Scholarship ($3326 in Spring 1998), University of Arizona
1996	Turkish Government Scholarship for MS and PhD educations in USA
1994	Bilkent University Scholarship for graduate level education
1994	Ihsan Dogramaci Supreme Success Award for being the top first among the graduates of the Computer Sciences and Engineering Department, Hacettepe University

1994	Science Encouragement Reward for being the third of the Faculty of Engineering, Hacettepe University

Professional Memberships

2002 - Present	ACM
1997 - Present	IEEE

Licensures and Certifications

2012	Faculty Recruitment Training, UTSA
2012	Title IX training, UTSA

Faculty Development Activities Attended

2018	Seminar, Facebook Train the Trainer (T3) Faculty Summit, Facebook, Menlo Park, CA
2018	Workshop, NSF Info Session on Undergraduate Education Programs, 2018 Creating Futures through Technology Conference, Biloxi, MS
2014 - 2015	Faculty Development Leave, Graph Mining for BigData Analysis in Cloud; and WRSN, UTSA
2012	Board Member Training, SST Charter Schools, San Antonio, TX
2012	Conference Attendance, IEEE INFOCOM 2012, Orlando, FL
2011	Conference Attendance, DOD National HBCU/MI Conference
2009	Tutorial, Conflict of Interest & Intellectual Property FYI Sessions, UTSA
2009	Conference Attendance, IEEE ICCCN 2009, San Francisco, CA