

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

Department of Computer Science
College of Sciences
The University of Texas at San Antonio
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San Antonio, TX 78249

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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
Dissertation Title: Turkish Text Generation With Systemic-Functional Grammar

Bachelor of Science, Computer Sciences and Engineering, Hacettepe University

Academic Positions

2008 - Present	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

Intellectual Contributions

Journal Article, Academic Journal - Peer-Reviewed/Refereed

24. Wichmann, A., Demirelli Okkalioglu, B., & Korkmaz, T. The Integration of Mobile (Tele-) Robotics and Wireless Sensor Networks: A Survey. *Computer Communications*. (Submitted)
23. Feng, G., & Korkmaz, T. Tuning the Search Direction for Finding Multi-constrained Multiple Shortest Paths. *IEEE TRANSACTIONS ON COMPUTERS*, 1-14. (Submitted)

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

39. Wichmann, A., & Korkmaz, T. Efficient Surveillance with Multiple Mobile Robots Using Location Prediction. (pp. 1-7). 15th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MobiHoc). (Submitted)
38. Yu, X., & Korkmaz, T. Indexing-based Sub-hypergraph Search in Large Hypergraphs.. Knowledge and Information Systems. (Submitted)

2013

37. Yu, X., & Korkmaz, T. (2013). Super-sequence Frequent Pattern Mining on Sequential Dataset. (pp. 1-8). Workshop on Knowledge Management and Big Data Analytics (KMBA), to be held as part of the IEEE International Conference on Big Data, Oct 6 – 9, 2013 at Santa Clara, CA, USA..
36. Narman, H., Korkmaz, T., & Tek, S. (2013). Utilizing distance distribution in determining topological characteristics of multi-hop wireless networks. *IEEE International Conference on Computing, Networking and Communications (ICNC) 2013* (pp. 149-154).

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.

Contracts, Fellowships, Grants, Sponsored Research and Residencies

Grant - Funded

2012

5. Korkmaz, T. (Principal), "Prioritization-based QoS Support with Attack Resilience in Wireless Ad Hoc Networks (Grant Web Page)," Sponsored by DoD Infrastructure Support Program for HBCU/MI, \$587,872.00. (October 2008 - September 2012).

2010

4. Korkmaz, T. (Co-Principal), Boppana, R. (Co-Principal), Grigoryan, A. (Co-Principal), Moriera, O. (Co-Principal), & Raju, G.V.S. (Principal), "Experimental Research in High-Performance Computing and Wireless Networking, Award Number: 0551501," Sponsored by NSF CRI, \$500,316.00. (July 2006 - June 2010).

2007

3. Korkmaz, T. (Principal), "Integrated QoS and security mechanisms to support mission critical applications in MANETs," Sponsored by CIAS Research Support, \$78,291.00. (December 2006 - December 2007).

2006

2. Korkmaz, T. (Principal), "Power-efficient mechanisms for detecting replay-based intruders in wireless ad hoc networks," Sponsored by CIAS Research Support, \$55,792.00. (June 2004 - August 2006).

2004

1. Korkmaz, T. (Co-Principal), "HPNC: Internet 2 Connectivity for UTHSCSA and UTSA, Award Number: 0228927," Sponsored by NSF High Performance Network Connections (HPNC), \$150,000.00. (September 2002 - August 2004).

Grant - Currently Under Review

2017

1. Korkmaz, T. (Principal), "CSR:Small:Collaborative Research: DETECT: Distributed," Sponsored by NSF, Federal, \$154,000.00. (August 2014 - July 2017).

Grant - Not Funded

1. Korkmaz, T. (Principal), "NRI: Small: Remote Monitoring and Control with Multiple," Sponsored by NSF, Federal, \$499,791.00.

Presentations

Paper - Peer-Reviewed/Refereed

2010

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

2001

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

2005

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).

Scholarship/Research/Creative Works Currently in Progress

2. Korkmaz, T., & Yu, X., Hyper-sequence Graph Matching and Mining
1. Korkmaz, T., & Wichmann, A., Task Allocation in Wireless Mobile Robot 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 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 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 Applications 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: Faisal 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).

Other Instructional Activities

- | | |
|------|--|
| 2013 | Publications by Students, Yu, X., and Korkmaz, T. Super-sequence Frequent Pattern Mining on Sequential Dataset (pp. 1-8). Workshop on Knowledge Management and Big Data Analytics (KMBA), to be held as part of the IEEE International Conference on Big Data, Oct 6 – 9, 2013 at Santa Clara, CA, USA.. |
| 2013 | Publications by Students, Husnu Narman, Turgay Korkmaz, Suleyman Tek, Utilizing Distance Distribution in Determining Topological Characteristics of Multi-hop Wireless Networks ICNC'13 -- CNC |
| 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, Andrew Wichmann, Justin Chester, Turgay Korkmaz, Smooth Path Construction for Data Mule Tours in Wireless Sensor Networks IEEE GLOBECOM 2012 |
| 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 Networks Volume 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-v>

	ector-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

2013 - 2014	Committee Member, Lab and Facility committee
2013 - 2014	Committee Member, PhD Qualification Exam Committee
2013 - 2014	Committee Chair, Faculty Search Committee
2012 - 2013	Committee Member, Faculty Search Committee
2011 - 2012	Committee Member, Graduate Studies Committee
2009 - 2011	Committee Member, Communications Committee
2009 - 2011	Committee Member, Graduate Recruitment Committee
2005 - 2007	Committee Member, Curriculum committee
2003 - 2005	Committee Member, MS committee
2002 - 2003	Committee Member, Lab committee
2002 - 2003	Committee Member, PhD committee

College Service

2013	Judge, COS Conference
2012 - 2013	Committee Member, CFRAC

2012	Committee Member, Doctoral Fellowships Committee
2012	Judge, COS Conference
2009 - 2011	Committee Member, College Policy Committee
2011	Judge, COS Conference
2003 - 2004	Committee Member, Budget Committee

University Service

2002 - Present	Faculty Advisor, two Student Associations (TURKSA, SAID), UTSA
2013 - 2015	Committee Member, Faculty Senate, UTSA
2014	Committee Chair, President's Distinguished Achievement Awards Committee, UTSA
2013 - 2014	Committee Member, Faculty Senate Executive committee, UTSA
2013 - 2014	Committee Member, Faculty Senate standing committee: Academic Policy and Requirements Committee (APR), UTSA
2013	Committee Member, President's Distinguished Achievement Awards Committee, UTSA
2011 - 2013	Committee Member, Grievance Committee, UTSA
2012	Committee Member, President's Distinguished Achievement Awards Committee, UTSA
2011	Committee Member, President's Distinguished Achievement Awards Committee, UTSA

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
2014	TPC member, IEEE ICC'14 AHSN (Ad-hoc and Sensor Networking Symposium)
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
2012	TPC member, ICCCN12 -- Network Algorithms and performance Evaluation Track
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)
2011	Reviewer, Grant Proposal, Sam Houston State University
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
- 2009 TPC member, ICC'2009 Ad-Hoc and Sensor Networking Symposium, ICC'2009--AHSNET
- 2008 Judge, I-SWEEEP Science Fair
- 2008 TPC member, IEEE Globecom 2008 Computer and Communications Network Security Symposium
- 2008 TPC member, IEEE International Conference on Wireless and Mobile Computing, Networking and Communications)
- 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
- 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
- 2007 TPC member, The 5th IEEE Workshop on End-to-End Monitoring Techniques and Services (E2EMON)
- 2007 TPC member, The IFIP Networking 2007 Conference

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
2006	TPC member, IEEE INFOCOM 2006 Conference
2005	Session Chair, IEEE VTC 2005-Fall, Security, Multimedia and QoS support
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

Public Service

2002 - Present Officer, President/Elect/Past, Riverwalk Education Foundation, Inc., A non-profit organization operating K-12 charter schools in Texas

Awards, Honors, and Biographical Listings

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 Trainig, UTSA

2012 Title IX training, UTSA

Faculty Development Activities Attended

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