Xiangfang (Lindsey) Li, Ph.D.

Assistant Professor
Department of Electrical & Computer Engineering
Roy G. Perry College of Engineering
Prairie View A&M University

Email: xili@pvamu.edu Phone: 936-261-9918

Education

2003–2007: Ph.D. in Dept. of Electrical & Computer Engineering, Rutgers University, Piscataway, NJ. 2000–2003: M.S. in Dept. of Electrical & Computer Engineering, Rutgers University, Piscataway, NJ.

1993-1996: M.E., Beijing University of Aeronautics and Astronautics (now known as Beihang University), Beijing, China

1989-1993: B.E., with highest honor, Beihang University

Professional Experience

2013-present: Assistant Professor, Department of Electrical & Computer Engineering, PVAMU

2009-2012: Postdoc Fellow/TEES Associate Research Scientist, Bioinformatics Training Program supported by NIH, under

mentorship of Distinguished Professor: Dr. Edward Dougherty, Texas A&M University.

2008-2009: Adjunct Professor of the Department of Electrical & Computer Engineering at PVAMU 1996-2000: Member of Technical Staff, Civil Aviation Computer Information Center of China.

Recent Publications

Journal Papers & Book Chapters

- 1. L. Qian, X. Li, and S. Wei (2013). "Anomaly Spectrum Usage Detection in Multihop Cognitive Radio Networks: A Cross-Layer Approach", *Journal of Communications*, vol. 8, no. 4, pp. 259-266. Doi: 10.12720/jcm.8.4. 259-266.
- 2. <u>X. Li</u> and E. Dougherty (2012). "Dynamical Modeling of Drug Effects Using Hybrid Systems", *EURASIP Journal on Bioinformatics and Systems Biology*, 2012:19. DOI: 10.1186/1687-4153-2012-19, Dec. 26, 2012.
- 3. X. Li, J. Hua, M. Bittner, and E. Dougherty (2012). "Assessing the Efficacy of Molecularly Targeted Agents on Cell Line-based Platforms by Using System Identification", *BMC Genomics*, 13:S11 DOI: 10.1186/1471-2164-13-S6-S11, Oct. 26, 2012.
- 4. <u>X. Li</u>, M. Bittner, and E. Dougherty (2012). "A Systems Biology Approach in Therapeutic Response Study for Different Dosing Regimens a Modeling Study of Drug Effects on Tumor Growth Using Hybrid Systems", *Cancer Informatics*, pp. 41-60, 2012:11 PMID:22442626, Feb. 27, 2012.
- X. Li, L. Qian, M. Bittner, and E. Dougherty (2011). "Characterization of Drug Efficacy Regions Based on Dosage and Frequency Schedules", *IEEE Transactions On Biomedical Engineering*, pp. 488-498, vol. 58, no. 3, PMID: 21095860, Mar. 2011.
- L. Qian, H. Wang and X. Li (2011). "Genetic Regulatory Networks Inference: Combining a genetic programming and H_∞ Filtering Approach", Chapter 7 in Applied Statistics for Network Biology: Methods in Systems Biology, pp. 133-153, Wiley, ISBN: 978-3-527-32750-8, June 2011.
- 7. L. Qian, J. Attia, X. Li, and D. Kataria (2010). "Power Control for Cognitive Radio Ad Hoc Networks", Chapter 3 in Cognitive Radio Networks, pp. 57-85, CRC Press, Taylor & Francis Group, LLC.
- 8. L. Qian, J. Attia, X. Li, and D. Kataria (2009). "Energy-Efficient Sensing in Wireless Sensor Networks", Chapter 13 in RFID and Sensor Networks, pp. 355-377, Taylor & Francis Group, LLC.
- L. Qian, N. Song, and X. Li (2007). "Detection of Wormhole Attacks in Multi-path Routed Wireless Ad Hoc Networks: A Statistical Analysis Approach", *Journal of Network and Computer Application*, pp. 308-330, vol. 30, 2007.
- 10. L. Qian, N. Song, and X. Li (2007). "SARC: Secure Anonymous Routing for Cluster based MANET", Chapter 2 in Wireless Communication Research Trends, pp. 55-81, Nova Scientific Publisher, 2007.
- 11. L. Qian, X. Li, D. Vaman, and Z. Gajic (2006). "Power Control and Scheduling with Minimum Rate Constraints in Clustered Multihop TD/CDMA Wireless Ad Hoc Networks", *Journal of Wireless Communication and Mobile Computing (WCMC)*, pp. 791-808, vol. 6, Wiley, 2006. (DOI: 10.1002/wcm.442)
- 12. L. Qian, X. Li, D. Vaman, and Z. Gajic (2006). "Joint Power Control and Proportional Fair Scheduling with Minimum Rate Constraints in Clustered Based MANET", *Lecture Notes in Computer Science 4325, pp. 197-208*, Springer, 2006.
- X. Li, S. Koskie, and Z. Gajic (2005). "Steffensen Iterations for Power Updates in CDMA Wireless Networks", Dynamics of Continuous Discrete and Impulsive Systems B: Applications and Algorithms, pp. 691–696, vol. 12-S, 2005.

Conference Papers

- 14. X. Li, L. Qian, and E. Dougherty (2013). "Identification of Molecularly Targeted Drug Effect Coefficient Using H_∞ Filter", IEEE Global Conference on Signal and Information Processing (GlobalSIP), accepted, Austin, USA, Dec. 3-5, 2013.
- 15. X. Li, L. Qian, and E. Dougherty (2013). "Drug Sensitivity Analysis: A Dosage Study on Cancer Cell Lines", Symposia on Cancer Research: Genomic Medicine, MD Anderson Cancer Center, Houston, USA, Oct. 4-5, 2013.
- 16. <u>X. Li,</u> L. Qian, M. Bittner, and E. Dougherty (2013). "Drug Effect Study on Proliferation and Survival Pathways on Cell Line-based Platform: a Stochastic Hybrid Systems Approach", *IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS 2013)*, accepted, Houston, USA, Nov. 17-19, 2013.

- 17. W. Oduola, L. Qian, <u>X. Li</u>, and D. Kataria (2013). "Mitigating Uplink Interference in Femtocell Networks with Physical Layer Network Coding", in *Proceedings of IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)*, Dec 15-18, Chennai, India.
- 18. L. Qian, X. Li, and S. Wei (2013). "Cross-Layer Detection of Stealthy Jammers in Multihop Cognitive Radio Networks", Invited position paper, International Conference on Computing, Networking and Communication (ICNC), San Diego, USA. Jan. 28-31, 2013.
- 19. L. Qian, C. Sorrells, <u>X. Li</u>, D. Kataria (2012). "Detection of Spectrum Congestion in Cognitive Radio Ad Hoc Networks", *Proc. of IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)*, Bangalore, India. Dec. 16-19, 2012.
- 20. X. Li, M. Bittner, and E. Dougherty (2011). "Assessing the Efficacy of Molecularly Targeted Agents by Using Kalman Filter", 2011 IEEE International Workshop on Genomic Signal Processing and Statistics (GENSIPS'11), San Antonio, TX. Dec. 2011.
- 21. C. Sorrells, P. Potier, L. Qian, and <u>X. Li</u> (2011). "Anomalous Spectrum Usage Attack Detection in Cognitive Radio Wireless Networks", *IEEE Conference on Homeland Security Technologies 2011*, Boston, MA, USA. Nov. 2011.
- X. Li, M. Bittner, and E. Dougherty (2011). "Dynamic and Quantitative Modeling of Drug Effect a NF-κB pathway example study", 102nd annual meeting of American Association for Cancer Research (AACR), Orlando, Florida, April 2011.
- X. Li, M. Bittner, and E. Dougherty (2011). "Drug Effects Modeling for Tumor Growth using Hybrid Systems: A
 Personalized Drug Administration Approach to Improving Therapeutic Effects", 8th Annual Conference of Mid-South
 Computational Biology and Bioinformatics Society (MCBIOS), College Station, Texas, April 2011.
- X. Li, M. Bittner, and E. Dougherty (2010). "Dynamic & Quantitative Modeling of Drug Effect Characterization of Drug Efficacy Regions Based on Dosage Regimen", Symposium on Cancer Research 2010: Personalized cancer therapy and prevention, MD Anderson cancer center, Oct. 8-9, 2010.
- 25. <u>X. Li</u> and E. Dougherty (2010). "Modeling Treatment and Drug Effects at the Molecular Level using Hybrid System Theory", *In Proc. IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB 2010)*, pp. 140-146, Montreal, May 2010.
- X. Li, L. Qian, and D. Kataria (2009). "Downlink Power Control in Co-channel Macrocell Femtocell Overlay", In Proc. of IEEE Conference on Information Sciences and Systems (CISS), pp. 383-388, Baltimore, MD. March 18-20, 2009.
- 27. X. Li, L. Qian and J. Kamto (2009). "Secure Anonymous Routing in Wireless Mesh Networks", *In Proc. of IEEE International Conference on e-Business and Information System Security*, WuHan, China. May 23-24, 2009.
- 28. X. Li and L. Qian (2007). "Detecting and Locating Wormhole Attacks in Wireless Ad Hoc Networks: A Statistical Analysis Approach", *DIMACS/DyDAn Workshop: Mathematical & Computational Methods for Information Security*, Houston, TX, Dec. 2007.
- 29. X. Li, L. Qian, J. Attia, and Z. Gajic (2007). "Joint Power Control and Admission Control for CDMA Cognitive Radio Networks", in Proc. of the 15th IEEE LAN/MAN Workshop, Princeton, NJ, Jun. 2007.
- 30. L. Qian, X. Li, J. Attia, and Z. Gajic (2007). "Power Control for Cognitive Radio Ad Hoc Networks", *in Proc. of the* 15th IEEE LAN/MAN Workshop, pp. 7-12, Princeton, NJ, Jun. 2007.
- 31. L. Qian, N. Song, and X. Li (2006). "Secure Anonymous Routing in Clustered Multihop Wireless Ad Hoc Networks", in Proc. of Conference on Information Sciences and Systems (CISS), pp. 1629-1634, Princeton, NJ, Mar. 2006.
- 32. L. Qian, N. Song, D. Vaman, <u>X. Li</u>, and Z. Gajic (2006). "Joint Power Control and Maximally Disjoint Routing for Reliable Data Delivery in Multihop CDMA Wireless Ad Hoc Networks", *in Proc. of IEEE Wireless Communication and Networking Conference (WCNC)*, pp. 300-306, Las Vegas, NV, April 3-6, 2006.
- 33. L. Qian, N. Song, D. Vaman, <u>X. Li</u>, and Z. Gajic (2006). "Power Control and Proportional Fair Scheduling with Minimum Rate Constraints in Clustered Multihop TD/CDMA Wireless Ad Hoc Networks", *in Proc. of IEEE Wireless Communication and Networking Conference (WCNC)*, pp. 763-769, Las Vegas, NV, April 3-6, 2006.
- X. Li, S. Koskie, and Z. Gajic (2005). "Steffensen Iterations for Power Updates in CDMA Wireless Networks", in Proc. of DCDIS 4th International Conference on Engineering Applications and Computational Algorithms, Ontario, Canada, Jul. 2005.
- 35. L. Qian, N. Song, and <u>X. Li</u> (2005). "Wormhole Attacks Detection in Wireless Ad Hoc Networks: A Statistical Analysis Approach", in *Proc. of IEEE parallel & Distributed Processing Symposium, pp. 1-8*, Apr. 2005.
- 36. L. Qian, N. Song, and X. Li (2004). "Detecting and Locating Wormhole Attacks in Wireless Ad Hoc Networks through Statistical Analysis of Multi-path", in Proc. of IEEE Wireless Communication and Networking Conference (WCNC), pp. 2106-2111, New Orleans, LA, Apr. 2005.
- 37. X. Li, L. Qian, and Z. Gajic (2004). "Adaptive Discrete Power Control for CDMA Systems", in Proc. of Conference on Information Sciences and Systems (CISS), pp. 1044-1049, Princeton, NJ, Mar. 2004.
- 38. X. Li and Z. Gajic (2003). "An Improved SIR-based Power Control for CDMA Systems using Steffensen Iterations", WINLAB Technical Report 235, Mar. 2003.
- 39. X. Li and Z. Gajic (2003). "Centralized Power Control in Coordinated CDMA Systems using Krylov Subspace Iterations", WINLAB Technical Report 233, Feb. 2003.
- 40. X. Li and Z. Gajic (2002). "Centralized Power Control in Coordinated CDMA Systems using Krylov Subspace Iterations", in Proc. of IASTED International Conference on Communications, Internet and Information Technology (CIIT), pp. 305-309, Nov. 2002.
- 41. X. Li (2002). "Uplink Power Control and Scheduling for CDMA Packet Data Systems", in Proc. of 40th Annual Allerton Conference on Communication, Control, and Computing, pp. 1308-1317, Oct. 2002.
- 42. X. Li and Z. Gajic (2002). "An Improved SIR-based Power Control for CDMA Systems using Steffensen Iterations", in Proc. of Conference on Information Sciences and Systems (CISS), pp. 287-290, Princeton, NJ, Mar. 2002.