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EDUCATION

Georgia Institute of Technology Ph. D. in Electrical and Computer Engineering	Atlanta, GA <i>August 2013</i>
Memorial University of Newfoundland M. Eng. in Electrical and Computer Engineering	St. Johns, NL, Canada <i>May 2008</i>
Beijing Institute of Technology B. Eng. in Electrical Engineering	Beijing, China <i>June 2003</i>

ACADEMIC EXPERIENCE

Wichita State University Assistant Professor	Wichita, KS <i>August 2013 - Present</i>
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RESEARCH INTERESTS

Modeling, Analysis, and Optimization of Data Networks with specific interests in Software Defined Networking, Wireless Communications in Challenged Environments, Internet of Multimedia Things, Nanonetworks, Wireless Sensor Networks, and Cognitive Radio Networks.

ACADEMIC HONORS

- BWN Lab Researcher of the Year Award, Georgia Institute of Technology, 2012
- TPC Highest Ranked Paper of IEEE DySPAN, IEEE Communication Society, 2011
- Fellow of the School of Graduate Studies, Memorial University of Newfoundland, 2008
- Travel Grant for IEEE International Conference on Communications (ICC), 2007
- Graduate Scholarship, Memorial University of Newfoundland, 2006 - 2008

PUBLICATIONS

PEER-REVIEWED JOURNAL PAPERS

1. P. Wang and I. F. Akyildiz, "On the Stability of Dynamic Spectrum Access Networks in the Presence of Heavy Tails," submitted for journal publication, 2013
2. P. Wang and I. F. Akyildiz, "Improving Network Connectivity in the Presence of Heavy-Tailed Interference," submitted for journal publication, 2013.
3. P. Wang, J. M. Jornet, M. G. A. Malik, N. Akkari, and I. F. Akyildiz, "Energy and Spectrum-aware MAC Protocol for Perpetual Wireless Nanosensor Networks in the Terahertz Band," to appear in **Ad Hoc Networks Journal** (Elsevier), 2013
4. P. Wang and I. F. Akyildiz, "Asymptotic Queueing Analysis for Dynamic Spectrum Access Networks in the Presence of Heavy tails," **IEEE Journal on Selected Areas in Communications**, Vol. 3, No. 3, pp. 514-522, March 2013.
5. P. Wang and I. F. Akyildiz, "On the Origins of Heavy Tailed Delay in Dynamic Spectrum Access Networks," **IEEE Transactions on Mobile Computing**, Vol. 11, No. 2, pp. 204-217, February 2012
6. P. Wang, R. Dai, and Akyildiz, I. F., "Differential Coding based Scheduling for Wireless Multimedia Sensor Networks," **IEEE Transactions on Multimedia**, vol. 15, no. 3, pp. 684 - 697, April 2013.

7. R. Dai, P. Wang, and I. F. Akyildiz, "Correlation-Aware QoS Routing with Differential Coding for Wireless Video Sensor Networks," **IEEE Transactions on Multimedia**, Vol. 14, No. 5, pp. 1469-1479, October 2012.
8. P. Wang, R. Dai, and I. F. Akyildiz, "A Spatial Correlation-Based Image Compression Framework for Wireless Multimedia Sensor Networks," **IEEE Transactions on Multimedia**, Vol.13, No.2, April 2011.
9. P. Wang and I. F. Akyildiz, "Spatial Correlation and Mobility Aware Traffic Modeling for Wireless Sensor Networks," **IEEE/ACM Transactions on Networking**, Vol.19, No.6, 2011.
10. P. Wang, I. F. Akyildiz, and A. M. Al-Dhelaan, "Percolation Theory Based Connectivity and Latency Analysis of Cognitive Radio Ad Hoc Networks," **ACM Journal of Wireless Networks**, Vol.17, No.3, 2011.
11. P. Wang, Z. Sun, M. C. Vuran, M. A. Al-Rodhaan, A. M. Al-Dhelaan, and I. F. Akyildiz, "On Network Connectivity of Wireless Sensor Networks for Sandstorm Monitoring," **Computer Networks Journal (Elsevier)**, Vol.55, No.5, pp.1150-1157, April 2011.
12. Z. Sun, P. Wang, M. C. Vuran, M. A. Al-Rodhaan, A. M. Al-Dhelaan, and I. F. Akyildiz, "BorderSense: Border Patrol through Advanced Wireless Sensor Networks," **Ad Hoc Networks Journal (Elsevier)**, Vol.9, No. 3, pp 468-477, May 2011.
13. Z. Sun, P. Wang, M. C. Vuran, M. A. Al-Rodhaan, A. M. Al-Dhelaan, and I. F. Akyildiz, "MISE-PIPE: Magnetic Induction-based Wireless Sensor Networks for Underground Pipeline Monitoring," **Ad Hoc Networks Journal (Elsevier)**, Vol.9, No. 3, pp 218-228, May 2011.
14. J. Zheng, P. Wang, and C. Li, "Data Aggregation Using Slepian-Wolf Coding in Cluster-based Wireless Sensor Network," **IEEE Transactions on Vehicular Technology**, Vol.59, No.5, 2010.
15. P. Wang, J. Zheng, and C. Li, "Joint Data Aggregation and Encryption Using Slepian-Wolf Coding for Clustered Wireless Sensor Network," **Journal on Wireless Communications and Mobile Computing (Wiley)**, Vol.10, No.4, April 2010.
16. P. Wang, J. Zheng, and C. Li, "Cooperative Fault Detection Mechanism with High Accuracy and Bounded Delay for Underwater Sensor Networks," **Journal on Wireless Communications and Mobile Computing (Wiley)**, Vol.9, No.2, February 2009.

PEER-REVIEWED CONFERENCE PAPERS

1. P. Wang and I. F. Akyildiz, "Network Stability of Cognitive Radio Networks in the Presence of Heavy Tailed Traffic," in Proc. of **IEEE SECON 2012**, Seoul, Korea, June 2012.
2. P. Wang and I. F. Akyildiz, "Can Dynamic Spectrum Access Induce Heavy Tailed Delay?," in Proc. of **IEEE DySPAN 2011**, Aachen, Germany, May 2011.
3. P. Wang Z. Sun, M. A. Al-Rodhaan, A. M. Al-Dhelaan, and I. F. Akyildiz, "Topology Analysis of Wireless Sensor Networks for Sandstorm Monitoring," in Proc. of **IEEE ICC 2011**, Kyoto, Japan, June 2011.
4. P. Wang, R. Dai, and I. F. Akyildiz, "Visual Correlation-Based Image Gathering for Wireless Multimedia Sensor Networks," in Proc. of **IEEE INFOCOM 2011**, Shanghai, China, Apr. 2011.
5. P. Wang and I. F. Akyildiz, "Effects of Different Mobility Models on Traffic Patterns in Wireless Sensor Networks," in Proc. of **IEEE GLOBECOM 2010**, Miami, Florida, USA, Dec. 2010.
6. P. Wang and I. F. Akyildiz, "Dynamic Connectivity of Cognitive Radio Ad-hoc Networks with Time-varying Spectral Activity," in Proc. of **IEEE GLOBECOM 2010**, Miami, Florida, USA, Dec. 2010.
7. R. Dai, P. Wang and I. F. Akyildiz, "Correlation-Aware QoS Routing for Wireless Video Sensor Networks," in Proc. of **IEEE GLOBECOM 2010**, Miami, Florida, USA, Dec. 2010.
8. P. Wang, R. Dui and I. F. Akyildiz, "Collaborative Data Compression Using Clustered Source Coding for Wireless Multimedia Sensor Networks," in Proc. **IEEE INFOCOM 2010**, San Diego, USA, Mar. 2010.
9. P. Wang and I. F. Akyildiz, "Spatial Correlation and Mobility Aware Traffic Modeling for Wireless Sensor Networks," in Proc. **IEEE GLOBECOM 2009**, Honolulu, USA, November 2009.
10. P. Wang, C. Li, J. Zheng, and H. Mouftah, "A Dependable Clustering Protocol for Survivable Underwater Sensor Networks," in Proc. **IEEE ICC 2008**, Beijing, China, May 2008.
11. C. Li, P. Wang, H. Chen, and M. Guizani, "A Cluster Based On-demand Multi-Channel MAC Protocol for Wireless Multimedia Sensor Networks," in Proc. **IEEE ICC 2008**, Beijing, China, May 2008.
12. P. Wang, C. Li, and J. Zheng, "Combined Data Aggregation and Encryption Using Cluster Slepian-Wolf Coding for Wireless Sensor Networks," in Proc. **IEEE GLOBECOM 2007**, Washington, DC, USA, November 2007.

13. P. Wang, J. Zheng, and C. Li, "A Distributed Fault Detection Mechanism for Underwater Sensor Networks," in Proc. **IEEE GLOBECOM 2007**, Washington, DC, USA, November 2007.
14. P. Wang, J. Zheng, and C. Li, "Data Aggregation Using Distributed Lossy Source Coding in Wireless Sensor Networks," in Proc. **IEEE GLOBECOM 2007**, Washington, DC, USA, November 2007.
15. P. Wang, C. Li, and J. Zheng, "Distributed Minimum-Cost Clustering Protocol for Underwater Sensor Networks (UWSNs)," in Proc. **IEEE ICC 2007**, Glasgow, Scotland, June 2007.
16. P. Wang, C. Li, and J. Zheng, "Distributed Data Aggregation Using Clustered Slepian-Wolf Coding in Wireless Sensor Networks," in Proc. **IEEE ICC 2007**, Glasgow, Scotland, June 2007.

TEACHING EXPERIENCE

Wichita State University
Instructor

Wichita, KS
August 2013 - present

- CS736 Data Communications Network, Fall, 2013

Georgia Institute of Technology
Graduate Teaching Assistant

Atlanta, GA
2010 - 2013

- ECE4903 Undergraduate Research Course, Fall, 2012
- ECE4607 Mobile and Wireless Networks, Spring 2010
- ECE6615 Sensor Networks, Spring 2010, Spring 2011, and Spring 2012

Memorial University of Newfoundland
Graduate Teaching Assistant

St. Johns, NL, Canada
2006 - 2007

- Engr. 4862 Microprocessors, Spring 2006
- Engr. 8863 LSI Design, Spring 2007
- Engr. 9859 Computer Engineering Fundamentals, Fall 2007

TALKS

SEMINAR TALKS

1. "On the Origins and Optimal Control of Heavy-Tailed Traffic in Cognitive Radio Networks," Department of Electrical and Computer Engineering, the Ohio State University, Oct. 2012
2. "On the Origins and Optimal Control of Heavy-Tailed Traffic in Cognitive Radio Networks," Department of Electrical Engineering and Computer Sciences, University of California Berkeley, Oct. 2011

CONFERENCE TALKS

1. "Effects of Different Mobility Models on Traffic Patterns in Wireless Sensor Networks, IEEE GLOBECOM10, Miami, Florida, USA, 2010.
2. "Dynamic Connectivity of Cognitive Radio Ad-hoc Networks with Time-varying Spectral Activity, IEEE GLOBECOM10, Miami, Florida, USA, 2010.
3. "Spatial Correlation and Mobility Aware Traffic Modeling for Wireless Sensor Networks, IEEE GLOBECOM09, Honolulu, USA, 2009.
4. "A Cluster Based On-demand Multi-Channel MAC Protocol for Wireless Multimedia Sensor Networks, IEEE ICC08, Beijing, China, 2008.
5. "A Dependable Clustering Protocol for Survivable Underwater Sensor Networks, IEEE ICC08, Beijing, China, 2008.
6. "An Efficient Fault-Prevention Clustering Protocol for Robust Underwater Sensor Networks, IEEE ICC08, Beijing, China, 2008.
7. "An Agreement-Based Fault Detection Mechanism for Underwater Sensor Networks, IEEE GLOBECOM07, Washington, DC, USA, 2007.
8. "Combined Data Aggregation and Encryption Using Clustered Slepian-Wolf Coding for Wireless Sensor Networks, IEEE GLOBECOM07, Washington, DC, USA, 2007.

9. "Data Aggregation Using Distributed Lossy Source Coding in Wireless Sensor Networks, IEEE GLOBE-COM07, Washington, DC, USA, 2007.
10. "Distributed Minimum-Cost Clustering Protocol for Underwater Sensor Networks (UWSNs), IEEE ICC07, Glasgow, Scotland, 2007.
11. "Distributed Data Aggregation Using Clustered Slepian-Wolf Coding in Wireless Sensor Networks, IEEE ICC07, Glasgow, Scotland, 2007.

PROFESSIONAL ACTIVITIES

Technical Program Committee (TPC) Member

- IEEE Global Telecommunications Conference (GLOBECOM 2009, 2010, 2011, 2012, 2013).
- IEEE International Conference on Communications (ICC 2011 - 2012).
- IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC 2012).
- IEEE International Workshop on Performance and Management of Wireless and Mobile Networks (P2MNET 2011).
- IEEE International Conference on Wireless and Mobile Computing, Networking and Communications (WiMob 2011).
- International Wireless Communications and Mobile Computing Conference (IWCMC 08, 09, 10, 11, 12).
- IEEE International Conference on Communications in China (ICCC 2012).
- International Conference on Computing, Networking and Communications (ICNC 2012).
- International Conference on Smart Homes and Health Telematics (iCOST 2011).
- International Conference on Connected Vehicles & Expo (ICCVE 2012).

Reviewer of Journal and Conference Articles

- IEEE Trans. on Communications, IEEE Trans. on Wireless Communications, IEEE Trans. on Multimedia, IEEE/ACM Trans. on Networking, IEEE Trans. on Vehicular Technology, IEEE Journal on Selected Areas in Communications, IEEE Comm. Letters, IEEE Network Magazine, Computer networks (Elsevier), Ad Hoc Networks (Elsevier), Wireless Communications and Mobile Computing (Wiley), EURASIP Journal on Advances in Signal Processing, ACM MOBIHOC, ACM MOBICOM, IEEE INFOCOM, IEEE GLOBECOM, IEEE ICC, IEEE SECON, IEEE WCNC, IEEE ISCC, IWCMC.

Memberships

Institute of Electrical and Electronics Engineers (IEEE)