

## PAPERS AND CONFERENCE PROCEEDINGS BASED ON ORBIT EXPERIMENTS:

- [1] S. Makharia, M. Wu, H. Liu, D. Li "Experimental Study on Wireless Multicast Scalability using Merged Hybrid ARQ with Staggered Adaptive FEC," to appear in *Proc of 9<sup>th</sup> IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks (WoWMoM'08)*, Newport Beach, CA, June 2008.
- [2] K. Ramachandran, R. Kokku, H. Zhang, and M. Gruteser, "Synchronous Two-phase Rate and Power Control in 802.11 WLANs," to appear in *Proceedings of the 6th International Conference on Mobile Systems, Applications and Services (ACM MOBISYS)*, Colorado, USA, June 2008.
- [3] R. Mahindra, G. Bhanage, G. Hadjicristofi, I. Seskar, D. Raychaudhuri, Y.Y. Zhang "Space Versus Time Separation For Wireless Virtualization On An Indoor Grid" to appear in *Proc. IEEE NGI*, April 2008.
- [4] M. Ergin, M. Gruteser, L. Luo, H. Liu, "Available bandwidth estimation and admission control for QoS routing in wireless mesh networks", to appear in *Computer Communications*, 2008.
- [5] S. Singhal, G. Hadjichristofi, I. Seskar, and D. Raychaudhuri, "Evaluation of UML Based Wireless Network Virtualization" to appear in *Proceedings IEEE NGI*, April 2008.
- [6] R. Mahindra, G. Bhanage, G. Hadjicristofi, S. Ganu, P. Kamat, I. Seskar, D. Raychaudhuri, "Integration of Heterogeneous Testbeds," In *Proc 4<sup>th</sup> Intl IEEE Conference on Testbeds and Research Infrastructure for the Development of Networks and Communities (Tridentcom 2008)*, Innsbruck, Austria, March 2008.
- [7] H. Liu, M. Wu, D. Li, S. Mathur, K. Ramaswamy, L. Han, and D. Raychaudhuri "A Staggered FEC System for Seamless Handoff in Wireless LANs: Implementation Experience and Experimental Study," *IEEE International Symposium on Multimedia (ISM 2007)*, Taichung, Taiwan, December 2007.
- [8] V. Subramanian, S. Kalyanaraman and K. K. Ramakrishnan, "Balancing Loss-Tolerance between Link and Transport Layers in Multi-Hop Wireless Networks", *Proceedings of the IETF ICCRG-2*, Vancouver, Canada, December 2007.
- [9] Q. Li and W. Trappe, "Detecting Spoofing and Anomalous Traffic in Wireless Networks via Forge-Resistant Relationships", *IEEE Trans. on Information Security and Forensics*, Dec 2007.

- [10] C. Raman, J. Kalyanam, I. Seskar and N. B. Mandayam, "Distributed spatio-temporal spectrum sensing: An experimental study," *Proceedings of Asilomar Conference on Signals, Systems and Computers*, Pacific Grove CA, November, 2007.
- [11] D. Rastogi, S. Ganu, Y. Zhang, W. Trappe, and C. Graff, "A Comparative Study of AODV and OLSR on the ORBIT Testbed", *Proceedings of the IEEE 2007 Military Communications Conference (Milcom 2007)*, Orlando, FL, October 2007.
- [12] Q. Li and W. Trappe, "Light-weight Detection of Spoofing Attacks in Wireless Networks," *Proceedings of the Fourth IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS 2007)*, Pisa, Italy, October 2007.
- [13] K.C. Lan, et al, "Experiences in deploying a wireless mesh network testbed for traffic control", *ACM SigComm Computer Comm Review*, Oct 2007.
- [14] G.C. Hadjichristofi, A. Brender, M. Gruteser, R. Mahindra and Ivan Seskar, "A Wired-Wireless Testbed Architecture for Network Layer Experimentation Based on ORBIT and VINI," *Proceedings of the 2nd ACM International Workshop on Wireless Network Testbeds, Experimental Evaluation and Characterization (WinTech 07)*, Montreal, Canada, September 2007.
- [15] S. Bannerjee, A Mishra, A. Chaturvedi and G. Smith, "Wireless Virtualization on Commodity 802.11 Hardware," *Proceedings of the 2<sup>nd</sup> ACM International Workshop on Wireless Network Testbeds, Experimental Evaluation and Characterization (WinTech 07)*, Montreal, Canada, September 2007.
- [16] M. A. Ergin, K. Ramachandran, and M. Gruteser, "Understanding the Effect of Access Point Density on Wireless LAN Performance," *13th Intl Conference on Mobile Computing and Networking (ACM MOBICOM)*, Montreal, QC, September, 2007.
- [17] K. Ramachandran, M. Gruteser, R. Onichi and T. Hikita, "Experimental Analysis of Broadcast Reliability in Dense Vehicular Networks," *1st IEEE Symposium on Wireless Vehicular Communications*, Baltimore, MD., September 2007.
- [18] J. Hortelano, et al, "Evaluating the goodness of MANETs performance results obtained with the ns-2 simulator", *Proceedings of the 2nd international conference on Performance Evaluation Methodologies and Tools*, 2007.
- [19] R. Boland, "No Node Left Behind", *AFCEA Signal Magazine*, Article on OrderOne Networks MANET protocol testing on ORBIT, <http://www.orderonenetworks.com/> July 2007.

- [20] K. Ramachandran, H. Kremo, M. Gruteser, P. Spasojevic and I. Seskar, "Scalability Analysis of Rate Adaptation Techniques in Congested IEEE 802.11 Networks: An ORBIT Testbed Comparative Study," *The 8th IEEE Symposium on a World of Wireless Mobile and Multimedia Networks (WoWMoM)*, Helsinki, Finland, June 2007.
- [21] S. Kaul, K. Ramachandran, P. Shankar, S. Oh, M. Gruteser, I. Seskar and T. Nadeem, "Effect of Antenna Placement and Diversity on Vehicular Network Communications," *IEEE International Conference on Sensor, Mesh and Ad Hoc Communications and Networks (SECON 2007)*, San Diego, CA, June, 2007.
- [22] M. Almeida, et al, "Experimental Evaluation of the Usage of Ad Hoc Networks as Stubs for Multiservice Networks", *EURASIP Journal on Wireless Communications and Networking*, 2007.
- [23] S. Shin, H. Schulzrinne, "Experimental Measurement of the Capacity for VoIP Traffic in IEEE 802.11 WLANs", *Proceedings of the 26th Annual IEEE Conference on Computer Communications (INFOCOM 2007)*, Anchorage, AK, May 2007.
- [24] W. Kiess, M. Mauve, "A survey on real-world implementations of mobile ad-hoc networks", *Ad Hoc Networks*, April 2007.
- [25] "Dataset of RSSI measurement on the ORBIT testbed", CRAWDDAD repository, May 2007, <http://crawdad.cs.dartmouth.edu>
- [26] D. Raychaudhuri, X. Jing, I. Seskar, K. Le and J. B. Evans, "Cognitive Radio Technology: From Distributed Spectrum Coordination to Adaptive Network Collaboration," accepted for publication in *Pervasive and Mobile Computing (PMC) journal*, April 2007.
- [27] T.C. Clancy and B.D. Walker, "MeshTest: Laboratory-Based Wireless Testbed for Large Topologies", *Proc. Tcomm*, 2007.
- [28] W. Xu, W. Trappe and Y. Zhang, "Channel Surfing: Defending Wireless Sensor Networks from Jamming and Interference," *Proceedings of the 4th ACM Conference on Embedded Networked Sensor Systems (SenSys 2006)*, Boulder, CO, November 2006.
- [29] M. A. Ergin and M. Gruteser, "Using Packet Probes for Available Bandwidth Estimation, A Wireless Testbed Experience," *In Proc. 1st ACM SIGMOBILE Intl. Workshop on Wireless Network Testbeds, Experimental Evaluation, and Characterization (WiNTECH 2006)*, Los Angeles, CA, September 2006.
- [30] Q. Li and W. Trappe, Relationship-based Detection of Spoofing-related Anomalous Traffic in Ad Hoc Networks, *Proceedings of the IEEE Third Annual Conference on Sensor,*

*Mesh and Ad Hoc Communications and Networks (SECON 2006)*, Reston, VA, September 2006.

- [31] Z. Li, W. Xu, R. Miller and W. Trappe, "Securing Wireless Systems via Lower Layer Enforcements," *Proceedings of the 2006 ACM workshop on Wireless Security(WiSe)*, Los Angeles, CA, September 2006.
- [32] K. Ramachandran, S. Rangarajan, and J. Lin, "Make-Before-Break MAC Layer Handoff in 802.11 Wireless Network," *Proceedings of the International Conference on Communications (ICC 2006)*, Istanbul, Turkey, June 2006.
- [33] I. Avramopoulos and J. Rexford, "Stealth Probing: Efficient Data-Plane Security for IP Routing," *Proceedings of USENIX 2006 Technical Conference*, Boston, MA, June, 2006.
- [34] S. Ganu, K. Ramachandran, M. Gruteser and I. Seskar, "Methods for Restoring MAC Layer Fairness in IEEE 802.11 Networks with Physical Layer Capture," *In Proceedings of the Second International Workshop on Multi-hop Ad Hoc Networks, REALMAN 2006, in conjunction with Mobihoc*, Florence, Italy, May 2006.
- [35] W. Xu, K. Ma, W. Trappe, Y. Zhang, "Jamming Sensor Networks: Attack and Defense Strategies," *IEEE Networks Special Issue on Sensor Networks*, vol. 20, pp. 41-47, May 2006.
- [36] [H. Lee](#), S. H. Rhee, D. Raychaudhuri and W. Trappe, "Interworking of Self-organizing Hierarchical Ad Hoc Networks and the Internet", *Proceedings of the 2006 International Conference on Computational Science (ICCS 2006)*, United Kingdom, May 2006.
- [37] R. Winter, and J. Schiller, "A Cross-layer Mobility Adaptation Framework for Ad Hoc Networks," *Proceedings of the International Workshop on Applications and Services in Wireless Networks (ASWN 2006)*, Berlin, Germany, May 2006.
- [38] J. Lei, R. Yates, L. Greenstein, and H. Liu, "Mapping Link SNRs of Wireless Mesh Networks onto an Indoor Testbed," ", *In Proceedings of the Second International IEEE Conference on Testbeds and Research Infrastructure for the Development of Networks and Communities (Tridentcom 2006)*,, Barcelona, Spain, March 1-3, 2006.
- [39] S. Kaul, M. Gruteser, and I. Seskar, "Creating wireless multi-hop topologies on space-constrained indoor testbeds through noise injection", *In Proceedings of the Second International IEEE Conference on Testbeds and Research Infrastructure for the Development of Networks and Communities (Tridentcom 2006)*, Barcelona, Spain, March 1-3, 2006.
- [40] H. Kremo, I. Seskar, and P. Spasojevic, "An ORBIT Testbed Study of 802.11b DCF:Throughput, Latency, and the Capture Effect", *In Proc. 2<sup>nd</sup> Intl. IEEE Conference on*

*Testbeds and Research Infrastructure for the Development of Networks and Communities (Tridentcom 2006)*, Barcelona, Spain, March 1-3, 2006.

- [41] K. Ramachandran, S. Kaul, S. Mathur, M. Gruteser, and I. Seskar, "Towards large-scale mobility emulation through spatial switching on a wireless grid," *In Proceedings of ACM E-WIND Workshop (held with ACM SIGCOMM 2005)*, Philadelphia, PA, August 2005.
- [42] S. Gopal and D. Raychaudhuri, "Experimental Evaluation of the TCP Simultaneous-Send problem in 802.11 Wireless Local Area Networks," *In Proceedings of ACM SIGCOMM Workshop on Experimental Approaches to Wireless Network Design and Analysis*, Philadelphia, PA, August 2005.
- [43] Z. Wu, S. Ganu, I. Seskar and D. Raychaudhuri, "Experimental Investigation of PHY Layer Rate Control and Frequency Selection in 802.11-based Ad-Hoc Networks," *In Proc. ACM SIGCOMM Workshop on Experimental Approaches to Wireless Network Design and Analysis*, Philadelphia, PA, August, 2005.
- [44] Ricardo Lent, "A Testbed Validation Tool for MANET Implementations," *miscots*, pp. 381-388, 13th *IEEE International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems*, 2005
- [45] D. Raychaudhuri, I. Seskar, M. Ott, S. Ganu, K. Ramachandran, H. Kremo, R. Siracusa, H. Liu and M. Singh, "Overview of the ORBIT Radio Grid Testbed for Evaluation of Next-Generation Wireless Network Protocols," *Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC 2005)*, March 2005.
- [46] J. Lei, R. Yates, L. Greenstein, and H. Liu, "Wireless Link SNR Mapping Onto An Indoor Testbed", *Proc 1<sup>st</sup> International IEEE Conference on Testbeds and Research Infrastructure for the Development of Networks and Communities (Tridentcom 2005)*, Trento, Italy, February, 2005
- [47] S. Ganu and D. Raychaudhuri, "Integrating Short-Range Ad-Hoc Radio Technologies Into Next Generation Wireless Networks," *In Proc. International Conference on Communication and Computing (ICCC 2005)*, Kanpur, India, February 2005.
- [48] N. Bannerjee, S.K. Das and A. Acharya, SIP-Based Mobility Architecture for Next Generation Wireless Networks, *Proc. IEEE PerComm*, 2005.