a. Journal Papers: 44 (Student and postdoc names are in bold.)

1. **M. Alsabaan**, W. Alasmary, **A. Albasir**, and K. Naik, "Vehicular Networks for a Greener Environment: A Survey," accepted in Sept. 2012 for publication in *IEEE Communication Surveys and Tutorials*.
2. **T. Abdelkader**, K. Naik, A. Nayak, N. Goel, and V. Srivastava, "SGBR: A Routing Protocol for Delay Tolerant Networks Using Social Grouping," accepted in July 2012 for publication in *IEEE Transactions on Parallel and Distributed Systems*.
3. **A. Elwhishi**, P. H. Ho, K. Naik, and B. Shihada, "A Novel Message Scheduling Framework for Delay Tolerant Networks Routing," accepted in June 2012 for publication in *IEEE Transactions on Parallel and Distributed Systems*.
4. **R. Palit**, K. Naik, and A. Singh, "Anatomy of WiFi Access Traffic of Smartphones and Implications for Energy Saving Techniques," *International Journal of Energy, Information and Communications*, Vol. 3(1), Feb. 2012, pp. 1-16.
5. **A. Elwhishi**, P. H. Ho, K. Naik and B. Shihada, "Self Adaptive Contention Aware Routing Protocol for Intermittently Connected Mobile Networks," accepted in December 2011 for publication in *IEEE Transactions on Parallel and Distributed Systems*.
6. **A. Prakash**, R. Verma, R. Tripathi, and K. Naik, "A Semaless Handover Scheme for Vehicles Across Heterogeneous Networks," *International Journal of Communication Networks and Distributed Systems*, Vol. 8 (1/2), 2012, pp. 4-20.
7. **R. Palit**, A. Singh, and K. Naik, "An Architecture for Enhancing Capability and Energy Efficiency of Wireless Handheld Devices," *International Journal of Energy, Information and Communications*, Vol. 2(4), 2011, pp. 117-136.
8. **H. Saleet**, R. Langar, K. Naik, R. Boutaba, A. Nayak, and N. Goel, "Intersection-based Geographical Routing Protocol for VANETs: a Proposal and Analysis," *IEEE Transactions on Vehicular Technology*, Vol. 60, No. 9, Nov. 2011, pp. 4560-4574.
9. **A. Prakash**, S. Tripathi, R. Verma, N. Tyagi, R. Tripathi and K. Naik, "Vehicle Assisted Cross-layer Handover Scheme in NEMO based VANETs," *International Journal of Internet Protocol Technology*, Vol. 6(1/2), 2011, pp. 83-95.
10. **T. Khalifa**, K. Naik, and A. Nayak, "A Survey of Communication Protocols for Automatic Meter Reading Applications," *IEEE Communications Surveys and Tutorials*, Vol. 13(2), 2nd Quarter 2011, pp. 168-182.
11. **A. Prakash**, A. Verma, R. Tripathi and K. Naik, "Extended Mobile IPv6 Route Optimization for Mobile Networks in Local and Global Mobility Domain," *International Journal of Mobile Computing and Multimedia Communications*, Vol. 2(2), pp. 1-17, April-June 2010.
12. **M. Dianati**, R. Tafazolli, X. Shen, and K. Naik, "Call Admission Control with Opportunistic Scheduling Scheme," *Int. J. of Wireless Comm. and Mobile Comp.*, Vol. 10(3), March 2010, pp. 372-382.
13. **M. Dianati**, R. Tafazolli, X. Shen, and K. Naik, "Per-user Service Model for Opportunistic Scheduling Schemes over Fading Channels," *International Journal of Wireless Communication and Mobile Computing*, Vol. 10(1), January, 2010, pp. 87-100.
14. G. Chakraborty, K. Naik, D. Chakraborty, N. Shiratori, and D. Wei, "Analysis of the Bluetooth Device Discovery Protocol," *Wireless Networks*, Volume 16, Issue 2 (Feb. 2010), Page 421-436.
15. **J. Lian**, Y. Liu, K. Naik, and L. Chen, Virtual Surrounding Face Geocasting in Wireless Ad Hoc and Sensor Networks, *IEEE Trans. on Networking*, Vol. 17, No. 1, February 2009, pp. 200—211.
16. K. Naik, D. S. L. Wei and S. Olariu, "Utilizing the Synchrony Among Base Stations for Better Performance of Channel Assignment Algorithms," *Computer Communications*, Vol. 31, Sept. 2008, pages 3267-3274.
17. D. S. L. Wei and K. Naik, "A Random-graph Based Model to Analyze Packet Interference Between Frequency Hopping Systems with an Application to Bluetooth," *Computer Communications*, Vol. 31, Sept. 2008, pages 3286-3291.

18. **M. Akon**, K. Naik, A. Singh and X. Shen, "An Inexpensive Unstructured Platform for Wireless Mobile Peer-to-peer Networks," *International Journal of Peer-to-Peer Networking and Applications*, Vol. 1, no. 1, March 2008, pp. 75-90.

19. **J. Lian** and K. Naik, "Skipping Technique in Face Routing with Guaranteed Message Delivery for Ad Hoc and Sensor Networks," *International Journal of Sensor Networks*, Vol. 4, no. 1/2, 2008, pp. 92-103.

20. **J. Lian**, K. Naik, and G. B. Agnew, "A Framework for Evaluating the Performance of Clustering Algorithms for Table-driven Hierarchical Networks," *IEEE/ACM Transactions on Networking*, Vol. 15, No. 6, 2007, pp. 1478-1489.

21. **J. Lian**, L. Chen, K. Naik, Y. Liu and G. B. Agnew, "Gradient Boundary Detection-based Construction for Time Series Snapshots in Sensor Networks," *IEEE Transactions on Parallel and Distributed Systems,* Vol. 18, No. 10, Nov. 2007, pp. 1462-1475.

22. C. C. Chou, D. Wei, C. C. J. Kuo and K. Naik, An Efficient Anonymous Communication Protocol for Peer-to-Peer Applications over Mobile Ad-Hoc Networks," *IEEE Journal on Selected Areas in Communications*, Vol. 25, no. 1, Jan., 2007, pp. 192-203.

23. **M. Dianati**, X. S. Shen, and K. Naik, "Cooperative Fair Scheduling for the Downlink of CDMA Cellular Networks," *IEEE Transactions on Vehicular Technology*, Vol. 56, No. 4 (Part I), July 2007, pp. 1749-1760.

24. **M. Dianati**, X. S. Shen and K. Naik, "Scheduling with Base Station Diversity and Fairness Analysis for the Downlink of CDMA Cellular Networks," *Wireless Communications and Mobile Computing* (John Wiley), Vol. 7, no. 5, June 2007, pp. 569-579.

25. **J. Lian**, K. Naik and G. Agnew, ``Data Capacity Improvement of Wireless   Sensor Networks Using Non-Uniform Sensor Distribution," *International Journal of Distributed Sensor Networks*, Vol. 2, No. 2, 2006, pp. 121-145.

26. **J. Lian**, L. Chen, K. Naik, M. T. Ozsu and G. B. Agnew, "BBS: An Energy Efficient Localized Routing Scheme for Query Processing in Wireless Sensor Networks," *International Journal of Distributed Sensor Networks*, Vol. 2, No. 1, 2006, pp. 23-54.

27. **M. Dianati**, X. Ling, K. Naik and X. S. Shen, "A Node Cooperative ARQ Scheme for Wireless Ad-Hoc Networks," *IEEE Transactions on Vehicular Technology*, Vol. 55, No. 3, May 2006, pp. 1032-1044.

28. K. Naik, D. Wei, Y. T. Su, and N. Shiratori, ``Analysis of Packet Interference in a Cluster of Bluetooth Piconets under Different Traffic Conditions," *IEEE Journal   on   Selected   Areas   in Communications*, Vol. 23, No. 6, June 2005, pp. 1205-1218.

29. K. Naik and D. S. L. Wei, ``Call-on-Hold for Improving the Performance of Dynamic Channel Assignment Strategies in Cellular Networks," *IEEE Trans. on Vehicular Technology*, Vol. 53, No. 6, Nov., 2004, pp. 1780-1793.

30. K. Naik, D. S. L. Wei, D. Krizanc, and S.-Y. Kuo, ``A Reservation-Based Multicast Protocol for Optical Star Networks," *IEEE Journal on Selected Areas in Communications*, Vol. 22, No. 9, Nov. 2004, pp. 1670-1680.

31. D. S. L. Wei, S. Rajasekaran, K. Naik and S-Y. Kuo, ``Efficient Algorithms for Selection and Sorting of Large Distributed Files on de~Bruijn and Hypercube Structures," *International Journal of Foundation of Computer Science*, Vol. 14, No. 6, Dec. 2003, pp. 1129-1146.

32. D. S. L. Wei, S. Rajasekaran, Z. Cheng, K. Naik and S-Y. Kuo, ``Efficient Selection and Sorting Schemes Using Coteries for Processing Large Distributed Files," *Journal of Parallel and Distributed Computing*, Vol. 62, No. 8, August 2002, pp. 1295-1313.

33. K. Naik and D. S. L. Wei, ``Software Implementation Strategies for Power-Conscious Systems," *ACM Mobile Networks and Applications*, Vol. 6, 2001, pp. 291-305.

34. Z. Cheng, K. Naik, N. Tajima, T. Huang and S. Noguchi, ``An Efficient Distributed Algorithm for Implementation of Multi-Rendezvous based on 1-chain-coterie,'' *Transaction of Information Processing Society of Japan*, Vol. 41, No. 2, Feb. 2000, pp. 462-473.

35. D. S. L. Wei, F. P. Muga and K. Naik, ``Isomorphism of Constant Degree Four Cayley Graphs and Wrapped Butterfly Networks and Their Optimal Routing Algorithm,'' *IEEE Trans. on Parallel and Distributed Systems*, Vol. 10, No. 12, Dec. 1999, pp. 1290-1298.

36. K. Naik, Z. Cheng and D. S. L. Wei, ``Distributed Implementation of the Disabling Operator in LOTOS,'' *Information and Software Technology* (Elsevier Science Publisher), Vol. 41, No. 3, Feb. 1999, pp. 123-130.

37. D. S. L. Wei and K. Naik, ``An Efficient Multicast Protocol for Mobile Computing Using de Bruijn Graphs,'' *ACM Computer Comm. Review*, Vol. 27, No. 3, July 1997, pp. 14-35.

38. K. Naik, ``Characterization of Service Provider for Reliable Testing of Communication Protocols,'' *The Computer Journal*, Vol. 40, No. 7, 1997, pp. 441-456.

39. K. Naik, ``Efficient Computation of Unique Input/Output Sequences in Finite State Machines,'' *IEEE/ACM Transactions on Networking*, Vol. 5, No. 4, August 1997, pp. 585-599.

40. K. Naik, ``Automatic Hardware Synthesis of Multimedia Synchronizers from High-level Specifications,'' *IEICE Transactions on Information and Systems (Japan)*, Vol. E79-D, No. 6, June 1996, pp. 160-168.

41. K. Naik, ``Exception Handling and Fault-tolerance in Multimedia Synchronization,'' *IEEE Journal on Selected Areas in Communications*, Vol. 14, Jan. 1996, pp. 196-211.

42. K. Naik and B. Sarikaya, ``Test Case Verification by Model Checking,'' *Formal Methods in Systems Design*, Vol. 2, June 1993, pp. 277-321.

43. K. Naik and B. Sarikaya, ``Verification of Test Cases for Protocol Conformance Testing,'' *The Journal of Systems and Software*, Vol. 19, Sept. 1992, pp. 41-57.

44. K. Naik and B. Sarikaya, ``Testing Communication Protocols,'' *IEEE Software*, Vol. 9, No. 1, January 1992, pp. 27-37.

b. <u>Refereed Conference Papers: 94 (Student and post-doc names are in bold.)</u>

1. **T. Khalifa**, A. Abdrabou, K. Naik, **M. Alsabaan**, A. Nayak, and N. Goel, "Design and Analysis of Split- and Aggregated-Transport Control Protocol (SA-TCP) for Smart Metering Infrastructure, 3rd IEEE Int. Conf. on Smart Grid Comm., Nov, 2012, Tainan, Taiwan, Nov. 2012 (8 pages).

2. **M. Alsabaan**, K. Naik, **T. Khalifa**, and A. Nayak, "Optimization of Fuel Cost and Emissions with Vehicular Networks at Traffic Intersections," 15th IEEE Int. Conference on Intelligent Transportation Systems (ITSC), Sept. 2012 (6 pages).

3. **M. Altamimi**, **R. Palit**, K. Naik, and A. Nayak, "Energy-as-a-Service (Eaas): On the Efficacy of Multimedia Cloud Computing to Save Energy of Smartphones," IEEE CLOUD: 5th International Conference on Cloud Computing, Hawaii, June 2012, pp. 764-771.

4. **S. Ruj**, A. Nayak, and K. Naik, "Securing Home Networks Using Physically Unclonable Functions," 4th IEEE Int. Conf. on Ubiquitous Networks," July 2012 (6 pages).

5. S. Tanessakulwattanai, C. Pornavalai, G. Chakraborty, and K. Naik, "Optimal-Multipath Energy-aware Routing Protocol for Wireless Sensor Networks," ECTI-CON (Electrical Engineering/Electronics, Computer, Telecommunications, and Information Technology Conference), Cha Am Beach, Thailand, May 2012 (4 pages).

6. **A. Abogharaf**, **R. Palit**, K. Naik, and A. Singh, "A Methodology for Energy Performance Testing of Smartphone Applications," ACM Int. Workshop on Automated Software Testing, 2012, pp. 110-116.

7. **A. Elwhisi**, P. H. Ho, K. Naik, and B. Shihada, "Contention Aware Routing for Intermittently Connected Mobile Networks," 3rd IEEE International Conference on Advances in Future Internet, French Riviera, August 2011, pp. 8-14. **(Received a best paper award.)**

8. **R. Palit**, A. Singh, and K. Naik, "Enhancing the Capability and Energy Efficiency of Smartphones using WPAN," 22nd IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Toronto, Sept. 2011, pp. 1020-1025.

9. **M. Alsabaan**, K. Naik, **T. Abdelkader**, A. Nayak, and **T. Khalifa**, "Geocast Routing in Vehicular Networks for Reduction of CO2 Emissions," 1st Int. Conf. on ICT as Key Technology for the Fight against Global Warming (ICT-GLOW), Toulouse, Sept. 29, 2011, pp. 26-40.

10. **M. Altamimi** and K. Naik, "The Concept of a Mobile Cloud Computing to Reduce Energy Cost of Smartphones and IT Systems," 1st Int. Conference on ICT as Key Technology for the Fight against Global Warming (ICT-GLOW), Toulouse, Sept. 29, 2011, pp. 79-86.

11. **P. Tysowski**, **P. Zhao**, and K. Naik, "Peer to Peer Content Sharing on Ad Hoc Networks of Smartphones," IEEE International Wireless Communication and Mobile Computing Conference (IWCMC), 2011, pp. 1445-1450.

12. **T. Abdelkader**, K. Naik, and A. Nayak, "Using Fuzzy Logic to Calculate the Backoff Interval for Contention-based Vehicular Networks," IEEE IWCMC, 2011, pp. 783-788.

13. **R. Palit**, K. Naik, and A. Singh, "Impact of Packet Aggregation on Energy Consumption in Smartphones," IEEE IWCMC, 2011, pp. 589-594.

14. **R. Palit**, **R. Arya**, K. Naik, and A. Singh, "Selection and Execution of User Level Test Cases for Energy Cost Evaluation of Smartphones," ACM Int. Workshop on Automated Software Testing, 2011, pp. 84-90. **(Submitted an extension of the paper to Journal of Systems and Software upon their invitation.)**

15. **H. Saleet,** K. Naik, R. Langar, R. Boutaba, A. Nayak, and V. Srivastava, "Performance Modeling of Routing Dependability in Home Networks," IEEE Global Communications (Globecom) Conference, 2011, pp. 1-6.

16. **R. Arya**, **R. Palit**, and K. Naik, "A Methodology for Selecting Experiments to Measure Energy Costs in Smartphones," IEEE IWCMC, 2011, pp. 2087-2092.

17. **Y. Hovakeemian**, K. Naik and A. Nayak, "A Survey on Dependability of Body Area Networks," 5th Int. Symposium on Medical Information and Communications Technology, Montreux, March 2011, pp. 10-14.

18. **H. Zhu**, S. Chan, M. Li, K. Naik and X, Shen, "Exploiting Temporal Dependency for Opportunistic Forwarding in Urban Vehicular Networks," IEEE INFOCOM, Shanghai, April, 2011, pp. 2192-2200.

19. **T. Khalifa**, K. Naik, A. Nayak. "A Transport Control Protocol Suite for Automatic Meter Reading Applications," Int. Conf. on Electronics Devices, Systems and Applications, Jakarta, April 2011, pp. 5-10.

20. S. Tanessakulwattana, C. Pornavalai, G. Chakraborty, and K. Naik, "Optimal Multi-path Energy-aware Routing Protocol for Wireless Sensor Networks," ACM Asian Internet Engineering Conference (AINTEC), Bangkok, 2010, pp. 1-4.

21. **H. Vahedi**, R. Muresan and K. Naik, "High Precision System-on-Chip Energy Management for Battery Lifetime Optimization," 15th IEEE Int. Conf. on Electronics, Circuits, and Systems, Athens, Dec. 2010 (4 pages).

22. **A. Elwhishi**, P.-H. Ho, and K. Naik, "ARBR: Adaptive Reinforcement-Based Routing for DTN," IEEE WiMob, Niagara Falls, 2010, pp. 376-385.

23. **T. A. Abdelkader**, K. Naik, A. Nayak, "An Eco-Friendly Routing Protocol for Delay Tolerant Networks," IEEE WiMob, Niagara Falls, 2010, pp. 450-457.

24. **K. Almahrog**, K. Naik, X. Shen, "Efficient Localized Protocols to Compute Connected Dominating Sets for Ad Hoc Networks," IEEE Globecom (Ad-hoc and Sensor Networking symposium, Dec. 2010 (5 pages).

25. **T. A. Abdelkader**, K. Naik, A. Nayak, and N. Goel, "A Socially-based Routing Protocol For Delay Tolerant Networks," IEEE Globecom (Wireless Networking symp.), Dec. 2010 (5 pages).

26. **O. Ekpenyong**, **Y. Hovakeemian**, K. Naik, and **M. Towhidul Islam**, **"**Channel Assignment Problem: A Fuzzy-based Hybrid Approach," IEEE Globecom (Wireless Comm. symposium), Dec. 2010 (5 pages).

27. **M. Altamimi**, K. Naik, and X. Shen, "Parallel Link Rendezvous in Ad Hoc Cognitive Radio Networks," IEEE Globecom (Wireless Comm. Symposium), Dec. 2010 (5 pages).

28. **H. Saleet**, R. Langar, K. Naik, R. Boutaba, A. Nayak, and N. Goel, "QoS Support in Delay Tolerant Vehicular Ad Hoc Networks," IEEE Globecom (Symp. on Selected Areas in Comm.), Dec. 2010 (6 pages).

29. **T. Khalifa**, K. Naik, **M. Alsaaban**, A. Nayak, and N. Goel, "Transport Protocol Infrastructure for Smart Grid Applications," 2nd IEEE Int. Conf on Ubiquitous and Future Networks, Jeju Island, South Korea, 2010, pp. 320-325.

30. **A. Prakash**, S. Tripathi, R. Verma, N. Tyagi, R. Tripathi, and K. Naik, "Vehicle Assisted Cross-layer Handover Scheme in NEMO Based VANETs," 3rd International Conference on Contemporary Computing, Noida, India, August, 2010, pp. 83-95.

31. **H. Rahbar**, K. Naik, and A. Nayak, "DTSG: Dynamic Time-Stable Geocast Routing in Vehicular Ad Hoc Networks," 9th IFIP Annual Mediterranean Ad Hoc Networking Workshop, 2010 (7 pages).

32. **M. Alsabaan**, K. Naik, T. Khalifa and A. Nayak, "Vehicular Networks for Reduction of Fuel Consumption and CO2 Emission," 8th IEEE Int. Conf. on Industrial Informatics, Osaka, July 2010, pp. 671-676.

33. **M. Alsabaan**, K. Naik, and A. Nayak, "Applying Vehicular Ad Hoc Networks for Reduced Vehicle Fuel Consumption," 2nd IEEE International Conference on Wireless and Mobile Networks, Ankara, June 2010, pp. 217-228.

34. **A. Prakash**, R. Tripathi, and K. Naik, "An Extended Mobile IPv6 type Route Optimization in Nested Mobile Networks," 5th IEEE Conference on Wireless Communication and Sensor Networks, Allahabad, India, December 2009 (6 pages).

35. **A. Prakash**, R. Verma, R. Tripathi, and K. Naik, "Multiple Mobile Routers based Seamless Handover Scheme for Next Generation Heterogeneous Networks," *NetCom 2009*, Chennai, India, December 2009, pp. 72-77.

36. **M. Dianati**, R. Tafazolli, X. Shen, and K. Naik, "A Markov Model for Per-User Service of Opportunistic Scheduling," 5th ACM Int. Wireless Communications and Mobile Computing Conference, Germany, June 2009, pp. 681-686.

37. **T. Abdelkader**, K. Naik, A. Nayak, and F. Karry, "Adaptive Backoff Scheme for Contention-based Vehicular Networks using Fuzzy Logic," IEEE Int. Conference on Fuzzy Systems, Jeju Islands, Korea, 2009, pp. 1621-1625.

38. **F. Rezaei**, K. Naik and A. Nayak, "Investigation of Effective Region for Data Dissemination in Road Networks Using Vehicular Ad hoc Network," IEEE Int. Conference on Fuzzy Systems, Jeju Islands, Korea, 2009, pp. 1977-1982.

39. **F. Rezaei**, K. Naik and A. Nayak, "Propagation of Traffic Related Information in Road Networks," Canadian Society for Civil Engineering Annual Conf., 2009, St. John's (6 pages)

40. **R. Palit**, K. Naik, and A. Singh, "Estimating the Energy Cost of Communication on Portable Wireless Devices," *1st IFIP Wireless Days*, Abu Dhabi, Nov. 2008 (5 pages)

41. **T. Abdelkader**, K. Naik, and A. Nayak, "Optimal Link Scheduling for Multimedia QoS Support in Wireless Mesh Neteoworks," 2nd IEEE International Conference on Internet Multimedia Systems, Architecture and Applications, Bangalore, Dec. 2008 (6 pages).

42. **R. Palit**, A. Singh and K. Naik, "Modeling the Energy Costs of Applications on Portable Devices," 11th ACM International Conference on Modeling, Analysis, and Simulation of Wireless and Mobile Systems, Vancouver, October 2008, pp. 346-353.

43. **S. Diallo**, K. Naik, D. Chakraborty, G. Kitagata and N. Shiratori, "A Reliable Feedback Guarantee Broadcast Protocol for Ad-hoc Wireless Networks," 5th IEEE Asia Pacific Wireless Communications Symposium, August 2008, Sendai, Japan (4 pages).

44. **R. Palit**, P. A. S. Ward, A. Singh and K. Naik, "Energy-aware Co-Operative Relay-based Packet Transmission in Wireless Networks," IEEE Wireless Communications and Networking Conference, Las Vegas, March 2008, pp. 2875-2880.

45. **M. Mehrjoo**, X. Shen and K. Naik, "A Channel-aware and Queue-aware Scheduling for IEEE 802.16 Wireless Metropolitan Area Networks," IEEE Wireless Communications and Networking Conference, Hong Kong, March 2007, pp. 1551-1555.

46. **J. Lian**, K. Naik and Y. Liu, "Virtual Surrounding Face Geocasting with Guaranteed Message Delivery for Ad Hoc and Sensor Networks," 14th IEEE International Conference on Network Protocols (ICNP)*,* Santa Barbara, USA, Nov. 2006, pp. 198-207.

47. **M. Mehrjoo**, **M. Dianati**, X. Shen and K. Naik, "Opportunistic Fair Scheduling for the Downlink of IEEE 802.16 Wireless Metropolitan Area Networks," 3rd ICST International Conference on Quality of Service in Heterogeneous Wired/Wireless Networks (QShine), Waterloo, August 2006 (5 pages).

48. **M. Akon**, K. Naik, A. Singh, X. Shen, "A Cross-layered Peer-to-peer Architecture for Wireless Mobile Networks," IEEE International Conference on Multimedia and Expo (ICME), Toronto, July 2006, pp. 813-816.

49. C.-C. Chou, D. S. L. Wei, C.-C. Jay Kuo and K. Naik, "Anonymous Peer-to-Peer Communication Protocols Over Mobile Ad-Hoc Networks," IEEE Globecom, San Francisco, Nov.2006 (5 pages).

50. **M. Dianati**, X. Shen, and K. Naik, "Per-user Throughput of Opportunistic Scheduling in Broadcast Fading Channels," IEEE International Conference on Comm. (ICC), Istanbul, June 2006, pp. 5234-5239.

51. **L. Chakraborty**, A. Singh, and K. Naik, "Scalable Update Propagation Partially Replicated, Disconnected Client-Server Databases," 8th International Conference on Enterprise Information System (ICEIS), Paphos, Cyprus, May 2006, pp. 11-21.

52. **J. Lian**, L. Chen, K. Naik, M. T. Ozsu and G. B. Agnew, "Localized Routing Trees for Query Processing in Sensor Networks," ACM Conference on Information and Knowledge Management (CIKM), Bremen, Germany, Nov. 2005, pp. 259-260.

53. K. Naik, D. Wei and S. Olariu, "Channel Assignment in Cellular Networks with Synchronous Base Stations," 2nd ACM International Workshop on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (PE-WASUN), Montreal, October 2005, pp. 222-229.

54. **M. Dianati**, X. Ling, K. Naik, and X. Shen, "Performance Analysis of the Node Cooperative ARQ Scheme for Wireless Ad-Hoc Networks", IEEE Globecom, St. Louis, Missouri, USA, Nov. 2005, pp. 3063-3067.

55. **M. Dianati**, X. Shen, and K. Naik, "Scheduling with Base Station Diversity for the Downlink of CDMA Cellular Networks," IEEE BROADNETS 2005, Boston, MA, USA, Oct. 3-7, 2005, pp. 406-411.

56. **M. Dianati**, X. Ling, X. S. Shen, K. Naik, "A Node Cooperative ARQ Scheme for Wireless Ad-Hoc Networks," 4th IFIP International Conference on Networking, May 2005, Waterloo, Canada (Lecture Notes in Computer Science, Vol. 3462), pp. 1418-1421.

57. **T. Woo**, C. Gebotys, K. Naik, "An Energy-Efficient Image Representation for Secure Mobile Systems," in IFIP International Conference on Networking, May 2005, Waterloo, Canada (Lecture Notes in Computer Science, Vol. 3462), pp. 126-137.

58. **Y. Yang**, P.-H. Ho, X. S. Shen, S. Li and K. Naik, "Modularized Two-Step Vertical Handoff Scheme in Integrated WWAN and WLAN," in Workshop on High Performance Switching and Routing," May 2005, Hong Kong, pp. 520-524.

59. **W. Ajoor**, K. Naik, and S. Safavi-Naeini, "Hardware Design and Development of a Novel Adaptive Frequency Hopping Algorithm for The Coexistence   of Bluetooth and WLAN," 6th World Wireless Congress, San Frascisco, May 24-27, 2005 (5 pages).

60. **M. Dianati**, X. Shen, and K. Naik, ``A New Fairness Index for Radio Resource Allocation in Wireless Networks," IEEE Wireless Communications and Networking Conference, 13-17 March, 2005, New Orleans, USA, 2005, pp. 712-717.

61. **S. Diallo**, K. Naik, and N. Shiratori, "Partial Unicast Retransmissions in Reliable Tree Based Broadcast for MANETs," 2004 Tohoku-Section Joint Convention of Institutes of Electrical and Information Engineers, Japan (1 page).

62. **J. Lian**, K. Naik, and G. Agnew, "Optimal Solution of Total Routing Table Size for Hierarchical   Networks,"   IEEE   International   Symposium   on   Computers   and Communications, Alexandria, Egypt, June 28-30, 2004, pp. 834-839.

63. G. Chakraborty, K. Naik, D. Chakraborty, Norio Shiratori, D. Wei, "Delay Analysis and Improvement of the Device Discovery Protocol in Bluetooth," IEEE Vehicular   Technology Conference, Fall 2004, Los Angeles, USA, Sept. 26-29, 2004, pp. 4461-4465.

64. G. Chakraborty, B. B. Bista, K. Naik, D. Chakraborty, Norio Shiratori, "Device Discovery in Bluetooth Piconets - Delay Problems and Solutions," Integrated Design and Process Technology Symposium on System Design and Software Engineering, Izmir, Turkey, June 2004, pp. 95-102.

65. K. Naik, D. S. L. Wei, Y. T. Su, and N. Shiratori, "Analysis of Packet Interference in a Cluster of Bluetooth Piconets Under Different Traffic Conditions," IEEE International Conference on Communications (ICC 2004), Paris, June 2004, pp. 3450-3454.

66. **W. Ajoor**, K. Naik and S. Safavi-Naeini, "Adaptive Frequency Hopping Algorithm for the Coexistence of Bluetooth and WLAN," 5th World Wireless Congress, San Francisco, May 2004, pp. 125-129.

67. L. Chakraborty, A. Singh, and K. Naik, "Pruning Update Log Files in Intermittently Connected Databases," 3rd International Workshop on Wireless Information Systems (WIS-2004), Porto, Portugal, April 2004, pp. 63-72.

68. K. Naik, G. Chakraborty and N. Shiratori, "Discovery of Bluetooth Nodes - A Critical Analysis," 5th Asia-Pacific Symposium on Information Technology and Telecommunications, New Caledonia, Nov. 2003, pp. 327-332.

69. **V. Dheap**, **A. Munawar**, K. Naik and P. Ward, "Parameterized Neighborhood Based Flooding for Ad Hoc Wireless Networks," IEEE Military Communications Conference (MILCOM), Boston, USA, Oct. 2003, pp. 1048-1053.

70. **J. Lian**, G.Agnew and K. Naik, "A Variable Degree Based Clustering Algorithm for Computer Networks," 12th IEEE International Conference on Computer Communications and Networks, Dallas, USA, October, 2003, pp. 465-470.

71. K. Naik, D. S. L. Wei and S-Y. Kuo, "Analysis of Packet Loss in a Cluster of Bluetooth Masters," IEEE Vehicular Technology Conference, Fall 2003, Orlando, USA, Nov. 2003, pp. 582-586.

72. **M. Dianati**, K. Naik, X. Shen and F. Karry, "A Genetic Algorithm Approach for Cell to Switch Assignment in Cellular Mobile Networks," 2003 Canadian Workshop on Information Theory, Waterloo, Canada, May 2003, pp. 159-162.

73. A. Chen, Y-X Zheng, B. Yang, L-C Wang, D. S. L. Wei and K. Naik, "NICE - A Decentralized Medium Access Control Using Neighborhood Information Classification and Estimation for Multimedia Applications in Ad Hoc 802.11 Wireless LANs," IEEE International Conference on Comm., (ICC 2003), Anchorage, USA, May 2003, pp. 208-220.

74. K. Naik, D. Krizanc and D. S. L. Wei, "A Reservation Based MAC Protocol with Multicast Support for Optical Star Networks," IEEE Globecom, 2002, pp. 2798-2802.

75. **R. Al-Ekram** and K. Naik, "IPv6 total mobility: An extension of mobile IPv6 to support mobility of arbitrary combinations of nodes and networks on the Internet," International Conference on Wireless Networks, Las Vegas, USA 2002 (6 pages).

76. K. Naik and D. S. L. Wei, "A General Strategy for Boosting the Performance of Dynamic Carrier Assignment Protocols in Cellular Networks," IEEE Networld+Interop 2001 Engineer's Conference on Internet Technologies, Networks, Systems and Services, Las Vegas, USA, May 2001 (6 pages)

77. K. Naik and D. S. L. Wei, "Energy-Conserving Software Design for Mobile Computers," DIMACS Workshop on Mobile Networks and Computing, Rutgers University, , March 25-27, 1999, pp. 237-257.

78. K. Naik and D. S. L. Wei, "Software Implementation Strategies for Power-Conscious Systems," DIMACS Workshop on Mobile Networks and Computing, Rutgers University, March 25-27, 1999, pp. 259-280.

79. S. Rajasekaran, K. Naik and D. S. L. Wei, "On Frequency Assignment in Cellular Networks," DIMACS Workshop on Mobile Networks and Computing, Rutgers University, March 25-27, 1999, pp. 293-301.

80. **H. Yanagisawa**, **H. Takano**, K. Naik, and D. S. L. Wei, "Implementing Object Migration and Communication," Int. Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA'99), Las Vegas, June 1999, pp. 2488-2493.

81. K. Naik, **Y. Tahara**, and Z. Cheng, "NETMAN: An Object-Oriented Environment for Experimenting Distributed Algorithms on a Network of Workstations," IEEE Int. Symp. on High Performance Distributed Computing, Chicago, July 1998, pp. 350-351.

82. **N. Matsumaru**, K. Naik and D. S. L. Wei, "Comparing Three Location Management Strategies for Tracking Mobile Systems," Int. Conf. on Parallel and Distributed Processing Techniques and Applications, Las Vegas, July 1998 (6 pages)

83. **T. Kataoka**, K. Naik and D. S. L. Wei, "Crafting a Mobile Network   Simulation Environment with Java," 9th International Conference on Computing and   Information (ICCI), Winnipeg, Canada, June 1998 (6 pages).

84. K. Naik and Z. Cheng, "A Scheme for Distributed Implementation of the Disabling Operator in LOTOS," 10th International Conference on Information Networking, Kyung-ju, Korea, January 1996, pp. 177-184.

85. K. Naik, "Fault-tolerant UIO Sequences in Finite State Machines," 8th. IFIP   Int.   Workshop on Protocol Test Systems, Evry, France, Sept. 1995, pp. 207-220.

86. K. Naik, "Distributed Implementation of Multi-rendezvous in LOTOS Using the Orthogonal Communication Structure in Linda," 15th. IEEE Int. Conference on Distributed Computing Systems (ICDCS), Vancouver, June 1995, pp. 518-525.

87. K. Naik, "Multimedia Synchronization: From Specification to Logic Gates," 1st. ISMM Int. Conf. on Distributed Multimedia Systems, Honolulu, 1994, pp. 167-170.

88. K. Naik, "Design of Reliable Architecture for Testing Timed Behavior of OSI Protocols," 14th IFIP International Conference on Protocol Specification, Testing and Verification, Vancouver, June 1994, pp. 114-129.

89. K. Naik and B. Sarikaya, "Protocol Conformance Test Case Verification Using Timed-Transitions," 14th   IFIP International Conference on Protocol Specification, Testing and Verification, Vancouver, June 1994, pp. 98-113.

90. K. Naik, "Specification and Synthesis of a Multimedia Synchronizer," IEEE International Conference on Multimedia Computing and Systems, Honolulu, August 1994, pp. 544-549.

91. P. Tripathy and K. Naik. Generation of adaptive test cases from non-deterministic finite state models. 5th Int. Workshop on Protocol Test Systems, September 1992, pp. 309–320.

92. K. Naik, G. Singh, K. Khorasani and R. V. Patel, "An Improved Multidirectional Associative Memory," Joint Int. Conference on Neural Networks, Singapore, Nov. 1991, pp. 477-482.

93. K. Naik and B. Sarikaya, "Static Validation of TTCN Test Cases," 3rd IFIP Int. Workshop on Protocol Test Systems, McLean, Oct. 1990, pp. 149-170.

94. K. Naik and J. Joseph, "An Iterative Method for Performance Evaluation of a Packet Switched Computer Network," IEEE International Conference on Systems, Man and Cybernetics, New Delhi, January 1984, pp. 392-398.

c.   Non-refereed conference papers/posters/technical reports: 5

1. K. Naik, "A Survey of Software Based Energy Saving Strategies for Wireless Handheld Devices," Tech. Report 13-2010, Dept. of ECE, University of Waterloo (50 pages)
2. **L. Chakraborty**, A. Singh and K. Naik, "Managing update log files in mobile wireless environments," Tech. Report 03-2005, Dept. of ECE, University of Waterloo.
3. **L. Chakraborty**, A. Singh and K. Naik, "Scalable update propagation in partially   replicated, disconnected client server databases," Tech. Report 03-2006, Dept. of ECE, Univ. of Waterloo.
4. **W. Ajoor**, K. Naik and S. Safavi-Naeini, "Bluetooth and WLAN Coexistence,'' Bell Mobility University Research Wireless Conference, Mississauga, October 30, 2002 (poster presentation).
5. K. Naik and B. Sarikaya, "An EFSM Model for TTCN," 15th. Biennial Communication Conference, Kingston, Canada, June, 1990, pp. 296-299.

d.   Books + Chapters (Student names are in bold)

1. (Book) K. Naik and P. Tripathy, *Software Testing: Theory and Practice*, John Wiley and Sons, New York, 2008, ISBN: 978-0-471-78911-6, 616 pages,
2. (Book) P. Tripathy and K. Naik, *Software Evolution and Maintenance*, John Wiley and Sons, New York, 2013, 450 pages.
3. (Chapter) **R. Palit**, A. Singh, K. Naik, "Energy Costs of Software Applications on Portable Wireless Devices," Ch. 3 in *Green Mobile Devices and Networks,* (eds.) H. Venkataraman and G. Muntean, CRC Press, ISBN: 978-143-985-989-6, 2012, pp. 53-74.
4. (Chapter) **M. Alsabaan**, K. Naik, **T. Khalifa**, and A. Nayak, "Applying Vehicular Networks for Reduced Vehicle Fuel Consumption and CO_2 Emissions," Ch. 1 in *Intelligent Transportation Systems*, (ed.) Ahmed Abdel-Rahim, InTech, ISBN 978-953-307-897-7, 2011, pp. 1-20.
5. (Chapter) M. Dianati, X. Shen, and K. Naik, "Cooperation Link Level Retransmission in Wireless Networks," Ch. 10 in *Cooperative Networking*, (ed.) M. S. Obaidat and S. Misra, John Wiley, ISBN: 978-047-074-915-9, 2011, pp. 147-176.
6. (Chapter) J. Lian, K. Naik, and G. Agnew, ``Modeling and Enhancing the Data Capacity of Wireless Sensor Networks," Ch. 3.5 in *Sensor Network Operations*, (ed.) T. La Porta and S. Phoha, IEEE Press, ISBN: 13-978-0-471-7197-6, October 2006, pp. 157-179.
7. (Chapter) D. Wei and K. Naik, ``Efficient Randomized Algorithms for Parallel and Distributed Machines," Ch. 5 in *Advances in Randomized Parallel Computing*, (eds.) P. M. Pardalos and   S. Rajasekaran, *Kluwer Academic*, ISBN: 978-0-7923-5714-8, 1999, pp. 85-111.
8. (Proceedings) S. Iyer and K. Naik (editors), Proc. of the 5th Int. Conference on Information Technology, Bhubaneswar, India, Dec. 2002, Tata-McGraw-Hill, New Delhi, 300 pages.

e.   Invited Talks: 16

1.   K. Naik, "Challenges in Evaluating Energy Performance of Smartphones," 3rd International Conference on Advanced Computing, Chennai (India), Dec. 16, 2011.
2.   K. Naik, "Comparison of Energy Costs of Software Applications on Smartphones," Research In Motion, Waterloo, May 27, 2011.
3.   K. Naik, "Green Communication," Indian Institute of Technology, Guahati, June 23, 2010.
4.   K. Naik, "Reduction of Emissions and Fuel Consumption by means of Vehicular Networks," Iwate Prefectural University, Japan, July 16, 2010.
5.   K. Naik, "Advanced Wireless Communications Systems for Reduction of Fuel Consumption and CO2 Emissions," National Institute of Technology, Rourkela, India, August 1, 2010.
6.   K. Naik, "Energy Management Strategies for Handheld Devices," a tutorial presented at the 2nd Int. Conference on Multimedia Systems, Architecture, and Applications, Bangalore, Dec., 2008.
7.   K. Naik, "Energy Conservation in Wireless, Hand-held Devices," International Conference on Next Generation Communication Networks, Allahabad, India, December, 2006.
8.   K. Naik, "Research Activities in Protocol Design for WLAN and Ad Hoc Networks," Tohoku University, Sendai, Japan, June 12, 2003.
9.   K. Naik, "Design of a Medium Access Control (MAC) Protocol for Wireless LANs with Heterogeneous Power Capabilities of Nodes," University of Aizu, Japan, Sept. 22, 2003.
10. K. Naik, "Service discovery in a Bluetooth network," Iwate-Prefectural Univ., Japan, June 2002.
11. K. Naik, "Service discovery in a Bluetooth network," Tohoku Univ., Sendai, Japan, June 2002.
12. K. Naik, "Inquiry and paging process in a Bluetooth network," Univ. of Aizu, Japan, June 2002.
13. K. Naik, "Advances in Computer Networks," Univ. College of Eng., Burla, India, Sept. 1996.
14. K. Naik, "Advances in Computer Networks," Sambalpur University, India, September 1995.
15. K. Naik, "Development of Software Systems with an Engineering Approach," Sambalpur University, India, Sept. 1995.
16. K. Naik, "An Introduction to Computer Networks," Regional Engineering College (now National Institute of Technology), Rourkela, India, Feb. 1990.

f.   Patent Applications Filed: 3

1.   Title: Method and Apparatus for Estimating Energy Cost of Software Applications on
      Communication Devices
      Inventors: A. Singh, R. Palit and K. Naik
      Filed by: Research In Motion
      Date of filing: Oct. 20, 2008
      Category: US Patent
      Patent application number: Not published yet
      RIM Ref. No.: 34339-US-PRV

2.   Title: Method and Apparatus Pertaining to Task Execution Offloading
      Inventors: A. Singh, R. Palit and K. Naik
      Filed by: Research In Motion
      Date of filing: Nov. 19, 2010
      Category: US Patent
      Patent application number: 20120131137

3.   Title: Information and Entertainment System for Vehicles
      Inventors: K. Naik and G. Countryman
      Filed by: Itinere Inc.
      Date of filing: Sept. 12, 2011
      Category: US Patent
      Patent application number: Not published yet