Lan Wang

Associate Professor
Graduate Coordinator
Department of Computer Science
University of Memphis

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Research Interests: *Named Data Networking (Architecture, Routing, Applications in Big Data and Mobile Health), Internet Measurements and Data Analysis, Network Security and Fault Tolerance, Routing Protocols and Algorithms*

Education

- PhD in Computer Science, University of California, Los Angeles 2004
- MS in Computer Science, University of California, Los Angeles 1999
- BS in Computer Science, Peking University, China 1997

Experience

Associate Professor 2010 – present
Department of Computer Science, University of Memphis

Assistant Professor 2004 – 2010
Department of Computer Science, University of Memphis

Founding Member 2009 – present
CLION: Center of Large-Scale Complex Systems & Integrated Optimization Networks, University of Memphis

Faculty Affiliate 2009 – present
Center for Research on Women (CROW), University of Memphis

Faculty Affiliate 2006 – present
Bioinformatics Program, and Center for Community Health (CCH), University of Memphis

Faculty Member 2005 – present
Center for Information Assurance (CFIA), University of Memphis, NSA National Center of Academic Excellence in Information Systems Security Education and Research

Honors

Early Career Research Award 2010
College of Arts and Sciences, University of Memphis

IEEE Senior Member 2010

Fellowship for Women's Institute in Summer Enrichment (WISE) 2007
The Team for Research in Ubiquitous Secure Technology (TRUST), an NSF Science and Technology Center

College of Arts and Science Travel Enrichment Award 2007
University of Memphis

IEEE ICNP Minority Faculty Travel Grant 2007

Teaching

Networking and Information Assurance, COMP3825 (Undergraduate)
University of Memphis, Fall 2007, 2008, 2009, 2010, 2014

Wireless Mobile Computing, COMP4/6310 (Graduate/Undergraduate)
University of Memphis, Fall 2005, 2006, Spring 2010, 2015

Advanced Computer Networks, COMP7/8311 (Graduate)
University of Memphis, Spring 2005, 2006, 2007, 2008, 2009, 2012

Computer Security, COMP4/6410 (Graduate/Undergraduate)
University of Memphis, Fall 2013

Models of Computation, COMP4/6601 (Graduate/Undergraduate)
University of Memphis, Spring 2011, Fall 2012, Spring 2014

Foundations of Computing, COMP7612 (Graduate)
University of Memphis, Spring 2013

Web Services and the Internet, COMP4/6302 (Graduate/Undergraduate)
University of Memphis, Spring 2006, 2007

CS2 Data Structures, COMP2150 (Undergraduate)
University of Memphis, Fall 2005, 2006

Internet Applications/Java Programming, COMP4/6302 (Graduate/Undergraduate)
University of Memphis, Fall 2004, Spring 2005

Funding

Activity	**Source**	**Amount**	**Period**
FIA-NP: Collaborative Research: Named Data Networking Next Phase (NDN-NP) (PI)	NSF	$350,000	5/1/2014 - 4/30/2016
REU Supplement: FIA-NP: Collaborative Research: Named Data Networking Next Phase (NDN-NP) (PI)	NSF	$16,000	8/26/2014 - 4/30/2016
Scaling NDN Routing through Name Mapping (PI)	Cisco	$99,985	2/2013 - 7/2014
Named Data Networking Supp I FY 14 (PI)	NSF	$36,141	9/1/2013 - 8/31/2014
REU Supplement: FIA Collaborative Research: Named Data Networking (NDN) (PI)	NSF	$16,000	2012 - 2013
FIA: Collaborative Research: Name Based Networking (PI)	NSF	$449,942	10/15/2010 - 10/15/2013
NeTS - FIND Collabortive Research: Enabling Future Internet innovations through Transit wire (eFIT) (PI)	NSF	$246,355	9/1/2007 - 8/31/2012
REU supplement to NSF CRI grant (PI)	NSF	$37,000	2007 - 2011

CRI: Collaborative Research: Building the Next-Generation Global Routing Monitoring System (PI)	NSF	$149,946	8/15/2006 - 7/31/2011
A Real-Time Demonstration System of FIB Aggregation (PI)	U. Memphis	$23,000	2013
CLION: Center of Large-Scale Complex Systems & Integrated Optimization Networks (Founding Member)	U. Memphis	$56,716	2009 - 2011
Distributed Intelligence in Biologically-Motivated Multi-Agent Systems for Employment in Complex Warfare Scenarios (Research Member)	U. Memphis	$13,000	2008 - 2009
Preparing Students for an Embedded Everywhere World (Co-PI)	U. Memphis	$10,000	1/2007 - 1/2008
Network Infrastructure Testing Suite (PI)	U. Memphis	$5,000	12/2006 - 5/2007
SNAP: Sensor Network for Assessment of Patients (PI)	U. Memphis	$6,500	5/2006 - 7/2007

Patents

Efficient Forwarding Information Base Caching System and Method
Yaoqing Liu, Lan Wang, 2014
Patent application is pending (serial number 14/524,890).

FIB Aggregation
Beichuan Zhang, Xin Zhao, Yaoqing Liu, Lan Wang, 2013
Patent application is pending (serial number 14/092,717).

Surveillance Tracking System and Method
Robert Kozma, Lan Wang, Khan Iftekaruddin, Ross Deming, Robert Linnehan, Sergi Consul, 2012
Patent application is pending (serial number 13/726,920).

Selected Press Releases and Coverage

U of M Partners to Improve Internet Security
High Ground News, Oct. 1, 2014

University-Industry Consortium Launched to Advance Internet of the Future
University of Memphis Press Release, Sept. 8, 2014

University Students Working to Build "Next Phase" of Internet
The Daily Helmsman, Aug. 25, 2014

University of Memphis Professor Develops "New Internet"
Memphis Flyer, July 17, 2014

NSF Announces Future Internet Architecture Awards
NSF Press Release, Aug. 27, 2010

Publications

Google Scholar Profile: `http://scholar.google.com/citations?user=o_hq28oAAAAJ&hl=en`

BOOK CHAPTERS AND JOURNAL PAPERS

1. Y. Liu, V. Lehman, L. Wang, Efficient FIB caching using minimal non-overlapping prefixes, *Computer Networks*, Mar. 2015 (ISI impact factor: 1.282)

2. J. P. Abraham, Y. Liu, L. Wang, B. Zhang, A Flexible Quagga-based Virtual Network with FIB Aggregation, *IEEE Network*, vol. 28, no. 5, pp. 47-53, Sept. 2014 (ISI impact factor: 3.72)

3. L. Zhang, A. Afanasyev, J. Burke, V. Jacobson, kc claffy, P. Crowley, C. Papadopoulos, L. Wang, B. Zhang, Named Data Networking, *ACM SIGCOMM Computer Communication Review (CCR)*, vol. 44, no. 3, pp. 66-73, July 2014 (ISI impact factor: 0.909)

4. D. Jen, M. Meisel, D. Massey, L. Wang. B. Zhang, L. Zhang, APT: A Practical Tunneling Architecture for Routing Scalability (book chapter), In M. Boucadair, & D. Binet (Eds.), *Solutions for Sustaining Scalability in Internet Growth*, pp. 60-82, IGI Global, 2014 (released in July 2013)

5. Y. Liu, X. Zhao, L. Wang, B. Zhang, On the Aggregatability of Router Forwarding Tables (book chapter), In M. Boucadair, & D. Binet (Eds.), *Solutions for Sustaining Scalability in Internet Growth*, pp. 39-59, IGI Global, 2014 (released in July 2013)

6. M. Khan, E. McCracken, K. Islam, S. Bhurtel, L. Wang, R. Kozma, K. M. Iftekharuddin, Autonomous Wireless Radar Sensor Mote for Target Material Classification, *Elsevier Digital Signal Processing*, vol. 23, no. 3, pp. 722-735, May 2013 (ISI impact factor: 1.495)

7. C. Yi, A. Afanasyev, I. Moiseenko, L. Wang, B. Zhang, L. Zhang, A Case for Stateful Forwarding Plane, *Elsevier Computer Communications, Special Issue on Information-Centric Networking*, vol. 36, no. 7, pp. 779-791, April 2013 (ISI impact factor: 1.352)

8. Y. Liu, S. Amin, L. Wang, Efficient FIB Caching using Minimal Non-overlapping Prefixes, *ACM SIGCOMM Computer Communication Review (CCR)*, vol. 43, no. 1, pp. 15-21, Jan. 2013 (ISI impact factor: 0.909)

9. A. Afanasyev, C. Yi, L. Wang, B. Zhang, L. Zhang, Adaptive Forwarding in Named Data Networking, *ACM SIGCOMM Computer Communication Reviews (Editorial Note)*, vol. 42, no. 3, pp. 62-67, Jul. 2012 (ISI impact factor: 0.909)

10. R. Kozma, L. Wang, K. M. Iftekharuddin, E. McCracken, M. Khan, K. Islam, S. R Bhurtel, R. M. Demirer, A Radar-Enabled Sensor System Integrating COTS Technology for Surveillance and Tracking, *Sensors*, vol. 12, no. 2, pp. 1336-1351, Jan. 2012 (ISI impact factor: 1.852)

11. K. Malasri, L. Wang, Securing Wireless Implantable Healthcare Devices (book chapter), *2011 McGraw-Hill Yearbook of Science & Technology*, pp. 296-298, 2011

12. V. Khare, D. Jen, X. Zhao, Y. Liu, B. Zhang, D. Massey, L. Wang, L. Zhang, Evolution towards Global Routing Scalability, *IEEE Journal on Selected Areas in Communications, Special Issue on Internet Routing Scalability*, vol. 28, no. 8, pp. 1363-1375, Oct. 2010 (ISI Impact Factor: 4.138)

13. K. Malasri, L. Wang, Design and Implementation of a Secure Wireless Mote-based Medical Sensor Network, *Sensors*, vol. 9, no. 8, pp. 6273-6297, August 2009 (ISI impact factor: 1.852)

14. K. Malasri, L. Wang, Securing Wireless Implantable Devices for Healthcare: Ideas and Challenges, *IEEE Communications*, vol. 47, no. 7, pp. 74-80, July 2009 (ISI impact factor: 4.46)

15. S. Kumar, L. Wang, Ad Hoc and Sensor Networks (book chapter), *Encyclopedia of Computer Science and Engineering*, Wiley, Jan 2009

16. L. Wang, D. Massey, L. Zhang, Persistent Detection and Recovery of State Inconsistencies, *Computer Networks*, vol. 51, no. 6, pp. 1444-1458, April 2007 (ISI impact factor: 1.282)

17. L. Wang, Y. Xiao, A Survey of Energy-Efficient Scheduling Mechanisms in Sensor Networks, *Springer Mobile Networks and Applications (MONET)*, vol. 11, no. 5, pp. 723-740, Oct. 2006 (ISI journal impact factor: 1.496)

18. L. Wang, X. Zhao, D. Pei, R. Bush, D. Massey, L. Zhang, Protecting BGP Routes to Top Level DNS Servers, *IEEE Transactions on Parallel and Distributed Systems*, vol. 14, no. 9, pp. 851-860, Sept. 2003 (ISI journal impact factor: 2.173)

CONFERENCE PUBLICATIONS

19. A. Afanasyev, C. Yi, L. Wang, B. Zhang, L. Zhang, SNAMP: Secure Namespace Mapping to Scale NDN Forwarding, in *Proceedings of the 18th IEEE Global Internet Symposium (GI 2015)*, April 2015

20. C. Yi, J. Abraham, A. Afanasyev, L. Wang, B. Zhang, L. Zhang, On the Role of Routing in Named Data Networking, in *Proceedings of ACM Conference on Information Centric Networking*, Sept. 2014 (acceptance ratio: 18.3% = 17/93)

21. AKM M. Hoque, S. O. Amin, A. Alyyan, B. Zhang, L. Zhang, L. Wang, NLSR: Named-data Link State Routing Protocol, in *Proceedings of ACM SIGCOMM ICN Workshop*, August 2013 (acceptance ratio: 20%)

22. Y. Liu, B. Zhang, L. Wang, FIFA: Fast Incremental FIB Aggregation, in *Proceedings of IEEE INFOCOM*, April 2013 (acceptance ratio: 17.4% = 280/1613)

23. K. M. Iftekharuddin, M. M. R. Khan, E. McCracken, L. Wang, and R. Kozma, Autonomous Wireless Radar Sensor Mote Integrating a Doppler Radar into a Sensor Mote and its Application in Surveillance and Target Material Classification, in *Proceedings of 56th SPIE Annual Meeting*, Vol. 8134, 15 pages, San Diego, CA, Aug. 2011

24. D. Massey, C. Papadopoulos, L. Wang, B. Zhang, L. Zhang, Teaching Network Architecture through Case Studies, in *SIGCOMM 2011 Education workshop*, Aug. 2011

25. Y. Liu, X. Zhao, L. Wang, B. Zhang, Incremental Forwarding Table Aggregation, in *Proceedings of IEEE GLOBECOM Next-Generation Networking (NGN) Symposium*, pp. 1-6, Dec. 2010

26. R. Kozma, L. Wang, K. Iftekharuddin, E. McCracken, M. Khan, K. Islam, R. M. Demirer, A Multi-Modal Sensor System Integrating COTS Technology for Surveillance and Tracking, in *Proceedings of IEEE International Radar Conference*, pp. 1030-1035, May 2010

27. X. Zhao, Y. Liu, L. Wang, B. Zhang, On the Aggregatability of Router Forwarding Tables, in *Proceedings of IEEE INFOCOM 2010*, pp. 1-9, Apr. 2010 (acceptance ratio 17.5% = 276/1575)

28. L. Wang, Q. Wu, Y. Liu, Design and Validation of PATRICIA for the Mitigation of Network Flooding Attacks, in *Proceedings of the IEEE/IFIP International Symposium on Trusted Computing and Communications*, pp. 651-658, August 2009

29. D. Jen, M. Meisel, H. Yan, D. Massey, L. Wang, B. Zhang, L. Zhang, Towards A New Internet Routing Architecture: Arguments for Separating Edges from Transit Core, in *Proceedings of ACM HotNets (Hot Topics in Networks)*, pp. 103-108, Oct 2008 (acceptance ratio: 20% = 22/110)

30. K. Malasri, L. Wang, Design and Implementation of a Secure Wireless Mote-based Medical Sensor Network, in *Proceedings of the 10th International Conference on Ubiquitous Computing (UbiComp)*, pp. 172-181, Sept. 2008 (acceptance ratio: 18.6% = 42/226)

31. L. Wang, Q. Wu, D. D. Luong, Engaging Edge Networks in Preventing and Mitigating Undesirable Network Traffic, in *Proceedings of 3rd Workshop on Secure Network Protocols (NPSEC) in conjunction with IEEE ICNP*, pp. 1-6, Oct. 2007

32. D. Massey, L. Wang, B. Zhang, L. Zhang, A Scalable Routing System Design for Future Internet, in *Proceedings of ACM SIGCOMM Workshop on IPv6 and the Future of the Internet*, 6 pages, August 2007 (acceptance ratio: 29.3%)

33. K. Malasri, L. Wang, Addressing Security in Medical Sensor Networks, in *Proceedings of ACM SIGMOBILE HealthNet Workshop (in conjunction with ACM MobiSys)*, pp. 7-12, June 2007 (acceptance ratio: 26% = 13/50)

34. L. Wang, M. Saranu, J. Gottlieb, D. Pei, Understanding BGP Session Failures in a Large ISP, in *Proceedings of IEEE INFOCOM*, pp. 348-356, May 2007 (acceptance ratio: 18% = 252/1400)

35. L. Wang, C. Ellis, W. Yin, D. D. Luong, Hercules: An Environment for Large-Scale Enterprise Infrastructure Testing, *in Proceedings of the Workshop on Advances and Innovations in Systems Testing*, May 2007

36. S. Balachandran, D. Dasgupta, L. Wang, A Hybrid Approach for Misbehavior Detection in Wireless Ad-Hoc Networks, in *Proceedings of the 2nd Symposium on Information Assurance*, pp. 50-60, June 2006

37. K. Malasri, L. Wang, SNAP: An Architecture for Secure Medical Sensor Networks, in *IEEE SECON, Poster*, pp. 160-162, Reston, VA, Sept. 2006

38. B. Zhang, V. Kambhampati, D. Massey, R. Oliveira, D. Pei, L. Wang, L. Zhang, A Secure and Scalable Internet Routing Architecture, in *ACM SIGCOMM*, Poster, 2 pages, Sept. 2006

39. L. Wang, Y. Xiao, Energy Saving Mechanisms in Sensor Networks, in *Proceedings of the IEEE International Conference on Broadband Networks (IEEE Broadnets)*, pp. 724-732, Oct. 2005

40. J. R. Bradley and L. Wang, Understanding Malicious Worms' Impact on the Internet Infrastructure through Realistic Simulation, in *USENIX NSDI (Networked System Design and Implementation)*, Poster, May 2005

41. L. Wang, D. Massey, K. Patel and L. Zhang, FRTR: A Scalable Mechanism for Global Routing Table Consistency, in *Proceedings of the International Conference on Dependable Systems & Network (DSN'04)*, pp. 465-474, June 2004 (acceptance ratio: 22% = 83/377)

42. S. T. Teoh, K. Ma, S. F. Wu, D. Massey, X. Zhao, D. Pei, L. Wang, L. Zhang, R. Bush, Visual-based Anomaly Detection for BGP Origin AS Change (OASC) Events, in *Proceedings of the Distributed Systems, Operations, and Management Workshop (DSOM'03)*, pp. 155-168, Oct 2003 (acceptance ratio: 23.8% = 20/84)

43. D. Pei, L. Wang, D. Massey, S. F. Wu, L. Zhang, A Study of Packet Delivery Performance during Routing Convergence, in *Proceedings of the International Conference on Dependable Systems & Networks (DSN'03)*, pp. 183-192, June 2003 (acceptance ratio: 30.8% = 45/146)

44. L. Wang, X. Zhao, D. Pei, R. Bush, D. Massey, A. Mankin, S. F. Wu, and L. Zhang, Protecting BGP Routes to Top Level DNS Servers, in *Proceedings of the 23rd International Conference on Distributed Computing Systems (ICDCS'03)*, pp. 322-331, May 2003 (acceptance ratio: 17.7% = 72/406)

45. X. Zhao, M. Lad, D. Pei, L. Wang, D. Massey, S. F. Wu, L. Zhang, Understanding BGP Behavior Through A Study of DoD Prefixes, in *Proceedings of DISCEX III*, pp. 214-225, April 2003 (acceptance ratio: 30%)

46. L. Wang, X. Zhao, D. Pei, R. Bush, D. Massey, A. Mankin, S. F. Wu, L. Zhang, Observation and Analysis of BGP Behavior under Stress, in *Proceedings of the Second ACM SIGCOMM Internet Measurement Workshop (IMW'02)*, pp. 183-195, Nov. 2002 (full paper acceptance ratio: 24.2% = 15/62)

47. D. Pei, X. Zhao, L. Wang, D. Massey, A. Mankin, S. F. Wu, L. Zhang, Improving BGP Convergence Through Consistency Assertions, in *Proceedings of IEEE INFOCOM 2002*, pp. 902-911, June 2002 (acceptance ratio: 20.5% = 192/938)

48. X. Zhao, D. Pei, L. Wang, D. Massey, A. Mankin, S. F. Wu, L. Zhang, Detection of Invalid Routing Announcements in the Internet, in *Proceedings of the International Conference on Dependable Systems and Networks (DSN'02)*, pp. 59-68, June 2002 (acceptance ratio: 31% = 48/156)

49. X. Zhao, D. Pei, L. Wang, D. Massey, A. Mankin, S. F. Wu, L. Zhang, An Analysis of BGP Multiple Origin AS (MOAS) Conflicts, in *Proceedings of the First ACM SIGCOMM Internet Measurement Workshop (IMW'01)*, pp. 31-35, Nov. 2001 (acceptance ratio: 26.4% = 14/53)

50. A. Terzis, K. Nikoloudakis, L. Wang, L. Zhang, IRLSim: A General Purpose Packet Level Network Simulator, in *Proceedings of 33rd Annual Simulation Symposium*, pp. 109-120, April 2000

51. L. Wang, A. Terzis, L. Zhang, A New Proposal for RSVP Refreshes, in *Proceedings of the 7th International Conference on Network Protocols (ICNP'99)*, pp. 163-172, Oct. 1999 (acceptance ratio 27.5% = 36/131)

52. A. Terzis, L. Wang, J. Ogawa, L. Zhang, A Two-Tier Resource Management Model for the Internet, in *Proceedings of Global Internet 99*, pp. 1779-1791, Dec. 1999 (acceptance ratio 23.9% = 28/117)

53. M. Kazantzidis, L. Wang, M. Gerla, On Fairness and Efficiency of Adaptive Audio Application Layers for Multihop Wireless Networks, in *Proceedings of IEEE MOMUC'99*, pp. 357-362, Nov. 1999

54. A. Terzis, J. Ogawa, S. Tsui, L. Wang, L. Zhang, A Prototype Implementation of the Two-Tier Architecture for Differentiated Services, in *Proceedings of the 5th IEEE Real-Time Technology and Applications Symposium (RTAS'99)*, June 1999

55. M. Gerla, R. Bagrodia, L. Zhang, K. Tang, L. Wang, TCP over Wireless Multihop Protocols: Simulation and Experiments, in *Proceedings of the IEEE International Conference on Communications (ICC'99)*, pp. 1089-1094, June 1999

OTHER PUBLICATIONS

56. A. Afanasyev, R. Ravindran, G. Wang, L. Wang, B. Zhang, L. Zhang, ICN Packet Format Design Requirements, *Internet Draft, Work in Progress*, 2015

57. Alexander Afanasyev, Junxiao Shi, Beichuan Zhang, Lixia Zhang, Ilya Moiseenko, Yingdi Yu, Wentao Shang, Yi Huang, Jerald Paul Abraham, Steve DiBenedetto, Chengyu Fan, Christos Papadopoulos, Davide Pesavento, Giulio Grassi, Giovanni Pau, Hang Zhang, Tian Song, Haowei Yuan, Hila Ben Abraham, Patrick Crowley, Syed Obaid Amin, Vince Lehman, and Lan Wang, NFD Developer's Guide, *NDN Technical Report NDN-0021*, Revision 1, July 1, 2014

58. Lixia Zhang, Alexander Afanasyev, Jeffrey Burke, Van Jacobson, kc claffy, Patrick Crowley, Christos Papadopoulos, Lan Wang, and Beichuan Zhang, Named Data Networking, *NDN Technical Report NDN-0019, Revision 1, 10 April 2014*,

59. Cheng Yi, Jerald Abraham, Alexander Afanasyev, Lan Wang, Beichuan Zhang, Lixia Zhang, On the Role of Routing in Named Data Networking, *NDN Technical Report NDN-0016*, December 2013

60. Alexander Afanasyev, Cheng Yi, Lan Wang, Beichuan Zhang, and Lixia Zhang, Scaling NDN Routing: Old Tale, New Design, *NDN Technical Report NDN-0004*, Revision 1, July 18, 2013

61. Cheng Yi, Alexander Afanasyev, Ilya Moiseenko, Lan Wang, Beichuan Zhang, and Lixia Zhang, A Case for Stateful Forwarding Plane, *NDN Technical Report NDN-0002*, July 2012

62. Y. Liu, B. Zhang, L. Wang, FIFA: Fast Incremental FIB Aggregation, *University of Memphis Computer Science Department Technical Report No. CS-13-004*, July 2013

63. L. Wang, AKM M. Hoque, C. Yi, A. Alyyan, B. Zhang, OSPFN: An OSPF Based Routing Protocol for Named Data Networking, *NDN Technical Report NDN-0003, July 2012*,

64. C. Yi, A. Afanasyev, I. Moiseenko, L. Wang, B. Zhang, L. Zhang, A Case for Stateful Forwarding Plane, *NDN Technical Report NDN-0002, July 2012*,

65. B. Zhang, L. Wang, X. Zhao, Y. Liu, L. Zhang, FIB Aggregation, *Internet Draft*, draft-zhang-fibaggregation-02.txt, Oct. 2009

66. B. Zhang, L. Zhang, L. Wang, Evolution Towards Global Routing Scalability, *Internet draft*, draft-zhang-zhang-evolution-02.txt, Oct. 2009

67. H. Yan, D. Massey, E. McCracken, L. Wang, BGPMon and NetViews: Real-Time BGP Monitoring System, *IEEE INFOCOM*, demo, April 2009

68. D. Jen, M. Meisel, D. Massey, L. Wang, B. Zhang, L. Zhang, APT: A Practical Tunneling Architecture for Routing Scalability, *UCLA Computer Science Department Technical Report #080004*, 2008

69. D. Jen, M. Meisel, D. Massey, L. Wang, B. Zhang, L. Zhang, APT: A Practical Transit Mapping Service, *Internet Draft*, draft-jen-apt-01.txt, Nov 2007

70. L. Wang, Q. Wu, D. D. Luong, Engaging Edge Networks in Preventing and Mitigating Undesirable Network Traffic, *U. Memphis Computer Science Dept Technical Report No. CS-07-004*, May 2007

71. D. Massey, L. Wang, B. Zhang, L. Zhang, A Proposal for Scalable Internet Routing & Addressing, *Internet Draft*, http://www.ietf.org/internet-drafts/draft-wang-ietf-efit-00.txt, Feb. 2007

72. B. Zhang, D. Massey, D. Pei, L. Wang, L. Zhang, R. Oliveira, V. Kambhampati, A Secure and Scalable Internet Routing Architecture (SIRA), *Technical Report TR06-01*, University of Arizona Computer Science Department, Apr. 2006

73. L. Wang, Y. Xiao,, Energy Saving Mechanisms in Sensor Networks, *Technical Report No. CS-05-003*, University of Memphis Computer Science Department, May 2005

74. L. Wang, D. Massey, L. Zhang, Persistent Detection and Recovery of BGP Routing Inconsistencies, *Technical Report No. CS-05-002*, University of Memphis Computer Science Department, Mar. 2005

75. L. Wang, D. Massey, K. Patel, L. Zhang, FRTR: A Scalable Mechanism to Restore Routing Table Consistency, *UCLA CSD Technical Report 030054*, Jan. 2004

76. L. Wang, A. Terzis, L. Zhang, RSVP Refresh Overhead Reduction by State Compression, *Internet Draft*, June 1999

Presentations

- Invited Talk: "NDN Architectural Development and Routing Design," Donaghey College of Information Science and Technology, University of Arkansas, Little Rock, Nov. 2014
- "NLSR: Named-data Link State Routing Protocol," NDN Community Meeting, Sept. 2014
- "Named Data Networking," Computer Science Camp for Girls, University of Memphis, July 2014
- Invited Talk: "NDN Architectural Development and Routing Design," Chinese Academy of Sciences, Computer Network Information Center, June 2014
- Panel talk: "NDN Project Progress," IEEE INFOCOM 2014 "Whether NDN" Panel, April 2014
- "Routing in NDN," NSF FIA PI meeting, Nov. 2013
- "Adaptive Forwarding in Named Data Networking," Computer Science Department Colloquium, University of Memphis, Nov. 2012
- "How I Became a Computer Scientist," Computer Science Camp for Girls, University of Memphis, July 2010
- "Design and Implementation of a Secure Wireless Mote-based Medical Sensor Network," UbiComp, Oct. 2008
- "Engaging Edge Networks in Preventing and Mitigating Undesirable Network Traffic," Computer Science Department Colloquium, University of Memphis, Nov. 2007
- "Engaging Edge Networks in Preventing and Mitigating Undesirable Network Traffic," 3rd Workshop on Secure Network Protocols (NPSEC), Oct. 2007
- "Building the Next-Generation Global Routing Monitoring System," NSF CRI PI Meeting, June 2007

- "Understanding BGP Session Failures in a Large ISP," IEEE INFOCOM, May 2007
- "Hercules: An Environment for Large-Scale Enterprise Infrastructure Testing," Workshop on Advances and Innovations in Systems Testing, May 2007
- Invited Talk: "Designing and Prototyping a Multi-Purpose Sensor Network," Center of Excellence for Battlefield Sensor Fusion, Tennessee State University, April 2007
- "Design and Implementation of SNAP (Sensor Network for Assessment of Patients)," Society of Women Engineers seminar, University of Memphis, March 2007
- "Exploring a Different Approach to Global Internet Routing, Scalability, Security, and Effectiveness," Computer Science Department Colloquium, University of Memphis, Dec. 2005
- "Observation and Analysis of BGP Behavior under Stress," at the second ACM SIGCOMM Internet Measurement Workshop, Nov. 2002
- "Observation and Analysis of BGP Behavior under Stress," at the North American Network Operators' Group (NANOG) 26th Meeting, Oct. 2002

Service

University, College and Department Service

- Graduate Coordinator, Department, Fall 2014 - present
- Research Capacity Assessment Study Team Member, University, Spring 2013 - Summer 2013
- Center for Information Assurance (CFIA) Advisory Committee, University, Fall 2008 - Present
- Graduate Council, College, Fall 2014 - present
- Tenure and Promotion Committee, College, Fall 2013 - Spring 2014
- Tenure and Promotion Committee, Department, Fall 2010 - present
- Faculty Search Committee, Department, Fall 2005 - Spring 2006, Fall 2008 - Spring 2014
- GOALS committee (Self-Assessment), Department, Spring 2008 - Spring 2009, Fall 2010 - Spring 2014
- Computer Science Colloquium Committee, Department, Fall 2008 - Spring 2011, Fall 2013 - Spring 2014
- Student Awards/Scholarship Committee, Department, Fall 2013 - Spring 2014
- CS Social Coordinator, Department, Fall 2012
- CS Research Day, Department, Spring 2012
- Graduate Admissions Committee, Department, Fall 2007 - Spring 2008, Fall 2010 - Summer 2011
- Scholarship Committee, Department, Fall 2008 - Spring 2009
- Judge for Annual Student Research Forum, University, 2008
- Department Chair Evaluation Committee, College, 1/2007-2/2007
- Undergraduate Curriculum Committee, Department, Fall 2006 - Fall 2007
- Visiting Associate Professor Search Committee, Department, Spring 2006, Spring 2009
- Advising Committee, Department, Fall 2004 - Spring 2005

Professional Service

Society/Organization/Journal	**Service**	**Period**
PeerJ Computer Science Journal	Editor	2015 – present
KSII Transactions on Internet and Information Systems	Editor	2013 – present
NSF Proposal Panel	Reviewer	2007, 2009, 2012, 2015
N2Women (Networking Networking Women) meeting at ACM SIGCOMM	Co-Organizer	2008
IEEE ICNP 2014	Publication Chair	2014
IEEE INFOCOM	TPC	2008 – 2015

ACM Conference on Information-Centric Networking	Travel Grant Chair	2015
ACM Conference on Information-Centric Networking	TPC	2014
IFIP Networking	TPC	2014
IEEE ICNP 2013	TPC	2013
International Conference on Computer Communications and Networks - Network Architectures and Clean-Slate Designs Track (NACSD)	TPC	2013
IEEE INFOCOM Workshop on Emerging Design Choices in Name-Oriented Networking (NOMEN)	TPC	2012, 2013
ACM MobiHoc Workshop On Emerging Name-Oriented Mobile Networking Design	TPC	2012
ACM SIGCOMM Workshop on Information Centric Networking (ICN)	TPC	2011 – 2013
IEEE ICC NGNI Symposium	TPC	2011
IEEE GLOBECOM Next Generation Networking Symposium	TPC	2010, 2013
Workshop on Secure Network Protocols	TPC	2009, 2010
International Conference on Networked Sensing Systems (INSS)	TPC	2009, 2010
The 12th ACM International Conference on Modeling, Analysis, and Simulation of Wireless and Mobile Systems (MSWiM)	TPC	2009
The Sixth International Conference on Broadband Communications, Networks, and Systems (BROADNETS 2009), Wireless Track	TPC	2009
IEEE NPSEC Workshop 2008	Co-Chair	2008
4th International Symposium on Innovations and Real-time Applications of Distributed Sensor Networks 2009	TPC	2008
International Conference on Security and Cryptography (SECRYPT) 2008	TPC	2008
IEEE Broadnets 2008, Wireless Communications, Networks and Systems Symposium	TPC	2007, 2008
IEEE GLOBECOM 2006, Symposium on Internet Services and Enabling Technologies	TPC	2006
IEEE GLOBECOM 2006, Symposium on Control and Management of High Performance Networks	TPC	2006
International Symposium on Wireless LANs and PANs (Wireless Networking) in IWCMC 2006	TPC	2006
International Symposium on Wireless Local and Personal Area Networks in WirelessCom 2005	TPC	2005
International Conference on High Performance Computing and Communication	TPC	2005

Advising and Mentoring

Postdoctoral Mentoring

- Syed Obaid Amin (2012-2014; Staff Researcher, Futurewei Technologies)
- Dung Dinh Luong (2005-2006; Senior Software Engineer, Northforge Innovations)

Doctoral Dissertation and MS Thesis/Project Advising

- Minsheng Zhang (PhD in progress)
- Muktadir R. Chowdhury (PhD in progress)
- Yaoqing Liu (MS 2011, PhD 2013; Assistant Professor, Computer Science Department, Clarkson University)
- AKM Mahmudul Hoque (MS 2014; Software Developer, Amazon)
- Ernest A. McCracken (MS 2012; Senior Programmer Analyst, FedEx Services)
- Kriangsiri Malasri (MS 2007; Instructor and Undergraduate Advising Coordinator, Computer Science Department, University of Memphis)

- Malleswari Saranu, (MS 2006; App Engineer, Wells Fargo)

UNDERGRADUATE RESEARCH ADVISING

- Benjamin Murphy (BS in progress)
- Ashlesh Gawande (BS in progress)
- Andrew Hood (BS 2015)
- Vince Lehman (BS 2014; Software Developer, University of Memphis)
- Nic Smith (BS 2014; Associate Data Analyst, FedEx Services)
- Adam Allyan (BS 2013; Software Developer, Amazon)
- Gus Sanders (BS 2012; Programmer Analyst, FedEx Services)
- Roman Birg (BS 2012; Software Developer, Cyanogen Inc)
- Oksana Koziaryk (BS 2012; Associate Developer/Tester, SAS)
- Stephen G. Smith (BS 2010; PhD student, University of Memphis)
- Ernest A. McCracken (BS, 2009; Senior Programmer Analyst, FedEx Services)
- David DeBaecke (BS 2007)

DOCTORAL COMMITTEE MEMBER

- 2015 - Ryan McCall, Abhijit Nag, Nobal Niraula, Vivek Shandilya, Daqin Yun
- 2013 - Yi Gu, Jake Qualls
- 2012 - Xukang Lu
- 2011 - Joe Burleson, Yi Gu, Yunyue Lin, Mihai C. Lintean, Mark Myers, Senhua Yu, Xiaodong Zhou
- 2009 - Kiran Bobba, Rodrigo Silva
- 2006 - Hui Chen
- 2005 - Haizhon Li

MS COMMITTEE MEMBER

- 2014 - Suri Babu Nuthalapati, Mohammad Faisal Rahman, Tong Shu
- 2013 - Ankur Patel
- 2012 - Sriharsha Madamanchi
- 2011 - Vivek Shandilya, Swathi Bavanaka
- 2010 - Raghu Teja Mylavarapu, Soujanya Medapati Medapati, Steve Ash, Praveen Kolla, Daniel Kay, Bhagavathy Krishna, Animikh Ghosh
- 2009 - Yunyue Lin, Reshma Jangili
- 2008 - Yi Gu, Wei Yin, Vivek Varma, Eddy Ochieng
- 2007 - Krishna Nerusu, Caleb Goodwin
- 2005 - Khaled Dajani
- 2004 - Shweta Kumar, Rakshit Patel