Publication Record

Byrav Ramamurthy

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Contents

1 Publication Record

Highlights

- Author/co-author of two books published by Kluwer/Springer in the areas of Optical networks and Network security.
- Published in prestigious **IEEE/ACM** journals such as **Proceedings of the IEEE**, **IEEE/ACM Transactions on Networking**, **IEEE/OSA Journal of Lightwave Technology** and **IEEE Journal on Selected Areas in Communications**.
- Published in other top networking journals such as **Computer Networks** and **IEEE Communications Surveys and Tutorials** and magazines such as **IEEE Network** and in the top optical networking-specific journals such as **OSA Journal of Optical Networking** (now IEEE Journal of Optical Communications and Networking) and **Elsevier Optical Switching and Networking**.
- Published papers at prestigious IEEE conferences such as **IEEE INFOCOM**, **IEEE P2P**, **IEEE/OSA Optical Fiber Communications (OFC)**, **IEEE GLOBECOM** and **IEEE ICC** and IEEE/ACM workshops such as **IEEE LANMAN**, **IEEE High Performance Switching and Routing (HPSR)** and **ACM International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV)**.
- Author/co-author of **2** books, **9** book chapters, **3** journal editorials, **3** edited conference/workshop proceedings, **35** peer-reviewed journal articles, **87** peer-reviewed conference/workshop papers and **4** peer-reviewed conference/workshop poster papers.
- Has **1** edited book under preparation, **5** journal articles currently under review or in preparation and **3** conference papers under review.
- Has delivered **2** invited tutorials, **5** invited conference/workshop presentations and several invited talks.
- Has been widely cited by researchers around the world. According to the ISI Web of Knowledge maintained by Thomson Reuters, 21 journal articles (indexed by ISI) authored by Dr. Ramamurthy) have been cited 284 times (by other journal articles indexed by ISI) with an average citation per article of 13.52 since 1998. (source: `http://www.researcherid.com/rid/B-3430-2008`).

About the List

- The list of publications can also be found online at `http://cse.unl.edu/~byrav/Publications-DATE.html`.
- All refereed (peer-reviewed) work are indicated and in general, in my field, all journal articles, conference and workshop regular papers and conference and workshop poster/short papers are rigorously reviewed by 3 independent reviewers.
- Note: Student authors are listed in *italics*. IEEE and ACM journals, conferences and workshops are listed in **bold**.
- In an electronic PDF version of this document, the digital object identifier (DOI) corresponding to each publication (where available) is listed at the end (e.g., `doi:10.1109/TNET.2005.852879`) and is clickable. The publication details may be viewed and the document downloaded (if the reader has the necessary subscription) from the publisher's database (e.g. IEEE Xplore). Otherwise, to resolve the DOI, please enter it at the website: `http://dx.doi.org`).

1.1 Books

1. B. Ramamurthy, G. Rouskas, and K. Sivalingam, eds., *Next-Generation Internet Architectures and Protocols*. Cambridge University Press, October 2010. (under preparation).
2. *X. Zou*, B. Ramamurthy, and S. S. Magliveras, *Secure Group Communications Over Data Networks*. Springer, October 2004. ISBN: 0387229701. `doi:10.1007/b100182`.
3. B. Ramamurthy, *Design of Optical WDM Networks - LAN, MAN and WAN Architectures*. Boston, MA: Springer, January 2001. ISBN: 0792372816. (Reviews of this book have appeared in *IEEE Communications magazine* (Sep. 2001) and *Optical Networks magazine* (July 2001).).

1.2 Book Chapters

Published/Accepted

1. *C. Cavdar*, *S. Rai*, A. Gencata, B. Ramamurthy, and B. Mukherjee, "Logical-topology design and optimization," in *The Handbook of Graph Algorithms and Applications, Volume II: Applications* (K. Thulasiraman, A. K. Somani, and S. Vrudhula, eds.), New York, NY: Chapman & Hall/CRC Computer & Information Science Series, 2010. ISBN: 9780849382505 (to appear).
2. *J. Feng*, *K. Kothamachu*, L. Xu, and B. Ramamurthy, "Overlay construction in mobile peer-to-peer networks," in *Mobile Peer-to-Peer Computing for Next Generation Distributed Environments: Advancing Conceptual and Algorithmic Applications* (B.-C. Seet, ed.), ch. 3, IGI Global, May 2009. ISBN: 9781605667157.
3. *Y. Wang*, *G. Attebury*, and B. Ramamurthy, "Security in wireless sensor networks," in *Security in Wireless Mesh Networks* (Y. Zhang, J. Zheng, and H. Hu, eds.), Auerbach Publications, CRC Press, 2008. ISBN: 9780849382505.
4. B. Ramamurthy, "Dynamic grooming algorithms," in *Traffic Grooming for Optical Networks: Foundations, Techniques and Frontiers (Optical Networks)* (R. Dutta, A. E. Kamal, and G. N. Rouskas, eds.), Springer, August 2008. ISBN:0387745173.
5. *K. Potharlanka*, *T. Antani*, B. Ramamurthy, L. Sahasrabuddhe, and B. Mukherjee, "Design aspects of optical communication networks," in *The Handbook of Optical Communication Networks (Electrical Engineering Handbook)* (M. Ilyas and H. Mouftah, eds.), ch. 3, pp. 45–66, CRC, April 2003. ISBN: 0849313333.
6. B. Ramamurthy, "Electro-optic and wavelength conversion," in *IP over WDM: Building the Next Generation Optical Internet* (S. Dixit, ed.), ch. 4, Wiley-Interscience, March 2003. ISBN: 0471212482.
7. B. Ramamurthy and J. Jue, "Fiber, lasers, receivers, and amplifiers," in *Optical WDM Networks: Principles and Practice* (K. M. Sivalingam and S. Subramaniam, eds.), pp. 27–50, Boston, MA: Kluwer Academic Publishers, 2000. ISBN: 0792378253. `doi:10.1007/0-306-47021-7_2`.
8. B. Ramamurthy, "Switches, wavelength routers, and wavelength converters," in *Optical WDM Networks: Principles and Practice* (K. M. Sivalingam and S. Subramaniam, eds.), ch. 3, pp. 51–75, Boston, MA: Kluwer Academic Publishers, 2000. ISBN: 0792378253. `doi:10.1007/0-306-47021-7_3`.
9. B. Ramamurthy, *L. Shen*, and *E. Sawma*, "Connection management for wavelength-routed optical WDM networks," in *Optical Networks: Recent Advances (Network Theory and Applications)* (L. Ruan and D.-Z. Du, eds.), pp. 187–204, Springer, September 2001. ISBN: 0792371666.

1.3 Journal Editorials

1. A. K. Somani and B. Ramamurthy, "Guest editorial - Optical communication networks for the next-generation Internet," **IEEE Network**, vol. 14, no. 6, pp. 6–7, 2000. doi:10.1109/MNET.2000.885664.
2. B. Ramamurthy, S. Subramaniam, and A. K. Somani, "Guest editorial - Special issue on wavelength conversion," *Optical Networks Magazine*, vol. 3, no. 2, p. 13, March 2002. doi:10.1023/A:1017404026744.
3. C. V. Saradhi, B. Ramamurthy, D. A. Schupke, and E. Oki, "Guest editorial - multidomain optical networks: issues and challenges," **IEEE Communications Magazine**, vol. 46, no. 6, pp. 76–77, June 2008. doi:10.1109/MCOM.2008.4539469.

1.4 Edited Proceedings

1. K. K. Ramakrishnan and B. Ramamurthy, "Proceedings of the mini-conference program," in **INFOCOM 2008. The 27th IEEE Conference on Computer Communications**, p. vi, April 2008. doi:10.1109/INFOCOM.2008.5.
2. N. Ghani and B. Ramamurthy, "Message from the Chairs," in **IEEE INFOCOM High-Speed Networks (HSN) Workshop**, (Piscataway, N.J.), IEEE, April 2007. doi:10.1109/HSNW.2007.4290533.
3. B. Ramamurthy, "Proceedings of the ICCCN 2008 conference program," in *ICCCN 2008. The 17th International Conference on Computer Communications and Networks*, August 2008.

1.5 Dissertation

1. B. Ramamurthy, *Efficient Design of Wavelength-Division Multiplexing (WDM)-Based Optical Networks*. Ph.D. Dissertation, Dept. of Computer Science, University of California, Davis, July 1998. UMI Publication No. AAT 0599745.

1.6 Journal Articles (Peer-Reviewed)

Papers Under Review and In Preparation

1. *Z. Ouyang*, L. Xu, B. Ramamurthy, and *N. Yossef*, "Partial forwarding vs. partial participation for dynamic window resizing in P2P streaming," July 2009. (under review).
2. *Y. Xue*, B. Ramamurthy, and *M.C. Vuran*, "SDRCS: A service-differentiated real-time communication scheme for event sensing in wireless sensor networks," September 2009. (in preparation).
3. *Y. Xue*, B. Ramamurthy, and *J. Hodges*, "Security issues in wireless mesh networks: Challenges and approaches," September 2009. (in preparation).
4. *X. Yang*, *A. Todimala*, *L. Shen*, and B. Ramamurthy, "Dynamic and deterministic lightpath scheduling in next-generation WDM optical network," September 2009. (in preparation).
5. *A. Todimala*, B. Ramamurthy, and N. V. Vinodchandran, "A dependent cost structure based heuristic for static fault-tolerant routing under shared protection in optical networks," September 2009. (in preparation).

Accepted for Publication

1. *Y. Wang*, B. Ramamurthy, *X. Zou*, and *Y. Xue*, "An efficient scheme for removing compromised sensor nodes from wireless sensor networks," *Journal of Security and Communication Networks*, 2009.

Published in 2009

1. *Y. Xue*, B. Ramamurthy, and *Y. Wang*, "LTRES: A loss-tolerant reliable event sensing protocol for wireless sensor networks," *Computer Communications*, vol. 32, pp. 1666–1676, September 2009. doi:10.1016/j.comcom.2009.06.006.
2. *W. Yao*, G. Sahin, *M. Li*, and B. Ramamurthy, "Analysis of multi-hop traffic grooming in WDM mesh networks," *Optical Switching and Networking*, vol. 6, no. 1, pp. 64–75, January 2009. doi:10.1016/j.osn.2008.09.001.
3. *J. Feng*, *Z. Ouyang*, L. Xu, and B. Ramamurthy, "Packet reordering in high-speed networks and its impact on high-speed TCP variants," *Computer Communications*, vol. 32, no. 1, pp. 62–68, January 2009. doi:10.1016/j.comcom.2008.09.022.

Published in 2008

1. *L. Shen*, *X. Yang*, and B. Ramamurthy, "A load-balancing spare capacity reallocation approach in the next-generation SONET metro networks," *Optical Switching and Networking*, vol. 5, no. 1, pp. 38–50, March 2008. doi:10.1016/j.osn.2007.11.002.
2. *W. Yao* and B. Ramamurthy, "Rerouting schemes for dynamic traffic grooming in optical WDM networks," *Computer Networks*, vol. 52, no. 10, pp. 1891–1904, July 2008. doi:10.1016/j.comnet.2008.02.027.

Published in 2007

1. *A. Todimala* and B. Ramamurthy, "A scalable approach for survivable virtual topology routing in optical WDM networks," **IEEE Journal on Selected Areas in Communications**, vol. 25, no. 6, pp. 63–69, August 2007. doi:10.1109/JSAC-OCN.2007.020605.
2. *R. K. Balachandran*, *X. Zou*, B. Ramamurthy, A. Thukral, and V. N. Variyam, "An efficient and attack-resistant key agreement scheme for secure group communications in mobile ad-hoc networks," *Wireless Communications and Mobile Computing (WCMC)*, December 2007. doi:10.1002/wcm.575.

Published in 2006

1. *M. Li* and B. Ramamurthy, "Heterogeneous waveband switching in wavelength division multiplexed networks based on autonomous clustering architecture [invited]," *OSA Journal of Optical Networking (JON)*, vol. 5, no. 9, pp. 667–680, September 2006. doi:10.1364/JON.5.000667.
2. *Y. Wang*, *G. Attebury*, and B. Ramamurthy, "A survey of security issues in wireless sensor networks," **IEEE Communications Surveys & Tutorials**, vol. 8, no. 2, pp. 2–23, Second Quarter 2006. doi:10.1109/COMST.2006.315852.

Published in 2005

1. *L. Shen*, *X. Yang*, and B. Ramamurthy, "Shared risk link group (SRLG)-diverse path provisioning under hybrid service level agreements in wavelength-routed optical mesh networks," **IEEE/ACM Transactions on Networking**, vol. 13, no. 4, pp. 918–931, 2005. doi:10.1109/TNET.2005.852879.
2. *X. Yang* and B. Ramamurthy, "Dynamic routing in translucent WDM optical networks: The intradomain case," **IEEE/OSA Journal of Lightwave Technology**, vol. 23, no. 3, pp. 955–957, March 2005. doi:10.1109/JLT.2004.841446.
3. *X. Yang*, *L. Shen*, and B. Ramamurthy, "Survivable lightpath provisioning in WDM mesh networks under shared path protection and signal quality constraints," **IEEE/OSA Journal of Lightwave Technology**, vol. 23, no. 4, pp. 1556–, April 2005.
4. *X. Yang* and B. Ramamurthy, "Sparse regeneration in translucent wavelength-routed optical networks: Architecture, network design and wavelength routing," *Photonic Network Communications*, vol. 10, no. 1, pp. 39–53, July 2005. doi:10.1007/s11107-005-1694-y.
5. *M. Li* and B. Ramamurthy, "Dynamic waveband switching in WDM mesh networks based on a generic auxiliary graph model," *Photonic Network Communications*, vol. 10, no. 3, pp. 309–331, November 2005. doi:10.1007/s11107-005-3493-x.
6. *W. Yao* and B. Ramamurthy, "Survivable traffic grooming with path protection at the connection level in WDM mesh networks," **IEEE/OSA Journal of Lightwave Technology**, vol. 23, no. 10, pp. 2846–2853, 2005. doi:10.1109/JLT.2005.856269.
7. *W. Yao* and B. Ramamurthy, "A link bundled auxiliary graph model for constrained dynamic traffic grooming in WDM mesh networks," **IEEE Journal on Selected Areas in Communications**, vol. 23, no. 8, pp. 1542–1555, 2005. doi:10.1109/JSAC.2005.851792.

Published in 2004

1. *X. Yang* and B. Ramamurthy, "Inter-domain wavelength routing in the next-generation translucent optical Internet backbones," *OSA Journal of Optical Networking (JON)*, vol. 3, no. 3, pp. 169–187, March 2004. doi:doi:10.1364/JON.3.000169.

2. *A. Todimala* and B. Ramamurthy, "A dynamic partitioning protection routing technique in WDM networks," *Cluster Computing*, vol. 7, no. 3, pp. 259–269, July 2004. doi:10.1023/B:CLUS.0000028004.03413.6b.
3. *L. Shen*, *X. Yang*, and B. Ramamurthy, "Signaling schemes for distributed connection management in wavelength-routed optical mesh networks," *Photonic Network Communications*, vol. 8, no. 1, pp. 89–103, June 2004. doi:10.1023/B:PNET.0000031620.07210.d5.

Published in 2003

1. *S. Zhang* and B. Ramamurthy, "Dynamic traffic grooming algorithms for reconfigurable SONET over WDM networks," **IEEE Journal on Selected Areas in Communications**, vol. 21, no. 7, pp. 1165–1172, 2003. doi:10.1109/JSAC.2003.815844.
2. *L. Shen* and B. Ramamurthy, "Provisioning and restoration in the next-generation optical core," *Optical Networks Magazine*, vol. 4, no. 2, pp. 32–45, March 2003. doi:10.1023/A:1022914606447.

Published in 2002

1. B. Ramamurthy and *A. Ramakrishnan*, "Design of virtual private networks (VPNs) over optical wavelength division multiplexed (WDM) networks," *Optical Networks Magazine*, vol. 3, no. 1, pp. 59–67, January 2002. doi:10.1023/A:1017484106556.
2. *J. T. Lee* and B. Ramamurthy, "A novel wavelength converter node architecture for WDM wavelength-routed networks," *Optical Networks Magazine*, vol. 3, no. 2, pp. 31–43, March 2002. doi:10.1023/A:1017404026744.

Published in 2000

1. *M. Ali*, B. Ramamurthy, and J. S. Deogun, "Routing and wavelength assignment with power considerations in optical networks," *Computer Networks*, vol. 32, no. 5, pp. 539–555, May 2000. doi:10.1016/S1389-1286(00)00015-3.
2. *T. Schroeder*, S. Goddard, and B. Ramamurthy, "Scalable web server clustering technologies," **IEEE Network**, vol. 14, no. 3, pp. 38–45, 2000. doi:10.1109/65.844499.
3. *X. Gan*, *T. Schroeder*, S. Goddard, and B. Ramamurthy, "LSMAC vs. LSNAT: Scalable cluster-based web servers," *Cluster Computing*, vol. 3, no. 3, pp. 175–185, November 2000. doi:10.1023/A:1019084304980.
4. *X. Gan* and B. Ramamurthy, "LSMAC: An improved load sharing network service dispatcher," *World Wide Web*, vol. 3, no. 1, pp. 53–59, July 2000. doi:10.1023/A:1019225512000.

Published in 1999

1. B. Ramamurthy, D. Datta, H. Feng, J. P. Heritage, and B. Mukherjee, "Impact of transmission impairments on the teletraffic performance of wavelength-routed optical networks," **IEEE/OSA Journal of Lightwave Technology**, vol. 17, no. 10, pp. 1713–1723, 1999. doi:10.1109/50.793740.

Published in 1998

1. D. Datta, H. Feng, B. Ramamurthy, J. P. Heritage, and B. Mukherjee, "BER-based call admission in wavelength-routed optical networks," *OSA Trends in Optics and Photonics: Optical Networks and Their Applications*, vol. 20, pp. 1–3, January 1998.
2. B. Ramamurthy, J. Iness, and B. Mukherjee, "Optimizing amplifier placements in a multiwavelength optical LAN/MAN: the equally powered-wavelengths case," **IEEE/OSA Journal of Lightwave Technology**, vol. 16, no. 9, pp. 1560–1569, 1998. doi:10.1109/50.712237.
3. B. Ramamurthy, J. Iness, and B. Mukherjee, "Optimizing amplifier placements in a multiwavelength optical LAN/MAN: the unequally powered wavelengths case," **IEEE/ACM Transactions on Networking**, vol. 6, no. 6, pp. 755–767, 1998. doi:10.1109/90.748087.
4. B. Ramamurthy and B. Mukherjee, "Wavelength conversion in WDM networking," **IEEE Journal on Selected Areas in Communications**, vol. 16, no. 7, pp. 1061–1073, 1998. doi:10.1109/49.725178.

Published in 1997

1. M. S. Borella, J. P. Jue, D. Banerjee, B. Ramamurthy, and B. Mukherjee, "Optical components for WDM lightwave networks," **Proceedings of the IEEE**, vol. 85, no. 8, pp. 1274–1307, 1997. doi:10.1109/5.622506.

Published in 1996

1. J. Iness, B. Ramamurthy, B. Mukherjee, and K. Bala, "Elimination of all-optical cycles in wavelength-routed optical networks," **IEEE/OSA Journal of Lightwave Technology**, vol. 14, no. 6, pp. 1207–1217, 1996. (Jointly published by the IEEE Journal on Selected Areas in Communications (JSAC).). doi:10.1109/50.511622.

1.7 Conference and Workshop Regular papers (Peer-Reviewed)

Under Review

1. *Yuyan Xue*, M. C. Vuran, and B. Ramamurthy, "An end-to-end analysis of anycast-based forwarding: Determining the cost-efficient forwarding metric and preamble length parameters," 2009. (under review).
2. *Miao Wang*, L. Xu, and B. Ramamurthy, "Exploring the design space for multi-channel peer-to-peer streaming systems," 2009. (under review).
3. *Raghunath Tewari* and B. Ramamurthy, "Optimal segment size for fixed-sized segment protection in wavelength-routed optical networks," 2009. (under review).

Published in 2009

1. *Miao Wang*, L. Xu, and B. Ramamurthy, "A flexible divide-and-conquer protocol for multi-view peer-to-peer live streaming," in **IEEE P2P '09: Ninth International Conference on Peer-to-Peer Computing**, (Seattle, WA), p. 10, September 2009.
2. *Miao Wang*, L. Xu, and B. Ramamurthy, "Providing statistically guaranteed streaming quality for peer-to-peer live streaming," in **The 19th ACM International Workshop on Network and Operating Systems Support for Digital Audio and Video (NOSSDAV)**, (Williamsburg, VA), p. 6, June 2009.
3. *Z. Ouyang*, L. Xu, and B. Ramamurthy, "A cooperative scheme for dynamic window resizing in p2p live streaming," in **ICC '09. IEEE International Conference on Communications**, (Dresden, Germany), p. 5, June 2009.
4. *V. Lakshmiraman* and B. Ramamurthy, "Joint computing and network resource scheduling in a Lambda Grid network," in **ICC '09. IEEE International Conference on Communications**, (Dresden, Germany), June 2009.

Published in 2008

1. *Y. Xue*, B. Ramamurthy, and M. C. Vuran, "A service-differentiated real-time communication scheme for wireless sensor networks," in **SenseApp '08: Third IEEE International Workshop on Practical Issues in Building Sensor Network Applications (held in conjunction with IEEE Local Computer Networks (LCN) 2008)**, (Montreal, Canada), October 2008.
2. *Y. Xue*, B. Ramamurthy, and *Y. Wang*, "Providing reliable data transport for dynamic event sensing in wireless sensor networks," in **ICC '08. IEEE International Conference on Communications**, pp. 3146–3150, May 2008. doi:10.1109/ICC.2008.592.
3. *Y. Wang*, B. Ramamurthy, and *Y. Xue*, "A key management protocol for wireless sensor networks with multiple base stations," in **ICC '08. IEEE International Conference on Communications**, pp. 1625–1629, May 2008. doi:10.1109/ICC.2008.314.
4. *Y. Wang*, B. Ramamurthy, *Y. Xue*, and *X. Zou*, "A security framework for wireless sensor networks utilizing a unique session key," in *Broadnets 2008: Fifth International Conference on Broadband Communications, Networks and Systems*, (London, U.K.), September 2008.
5. *Z. Ouyang*, L. Xu, and B. Ramamurthy, "A partial forwarding scheme for dynamic window resizing in live P2P streaming systems," in **GLOBECOM '08. IEEE Global Telecommunications Conference**, (New Orleans, LA, USA), December 2008.

Published in 2007

1. *J. Feng*, *Z. Ouyang*, L. Xu, and B. Ramamurthy, "Packet reordering in high-speed networks and its impact on high-speed TCP variants," in *PFLDnet 2007, Fifth International Workshop on Protocols for FAST Long-Distance Networks*, pp. 19–24, Feb. 2007.
2. *A. Todimala* and B. Ramamurthy, "Algorithms for intermediate waveband switching in optical WDM mesh networks," in **IEEE INFOCOM High-Speed Networks (HSN) Workshop**, pp. 21–25, April 2007. doi:10.1109/HSNW.2007.4290539.
3. *Y. Wang*, B. Ramamurthy, and *X. Zou*, "KeyRev: An efficient key revocation scheme for wireless sensor networks," in **ICC '07. IEEE International Conference on Communications**, pp. 1260–1265, May 2007. doi:10.1109/ICC.2007.213.
4. *L. Shen*, *X. Yang*, *A. Todimala*, and B. Ramamurthy, "A two-phase approach for dynamic lightpath scheduling in WDM optical networks," in **ICC '07. IEEE International Conference on Communications**, pp. 2412–2417, May 2007. doi:10.1109/ICC.2007.405.
5. *Y. Wang* and B. Ramamurthy, "Group rekeying schemes for secure group communication in wireless sensor networks," in **ICC '07. IEEE International Conference on Communications**, pp. 3419–3424, May 2007. doi:10.1109/ICC.2007.566.
6. *M. Li* and B. Ramamurthy, "Dedicated path protection for waveband switching in WDM networks (invited paper)," in *Broadnets 2007: Fourth International Conference on Broadband Communications, Networks and Systems*, pp. 584–593, September 2007. doi:10.1109/BROADNETS.2007.4550487.

Published in 2006

1. *G. Attebury* and B. Ramamurthy, "Router and firewall redundancy with OpenBSD and CARP," in **ICC '06. IEEE International Conference on Communications**, vol. 1, pp. 146–151, June 2006. doi:10.1109/ICC.2006.254719.
2. *S. Deshpande*, *A. Todimala*, *R.K. Balachandran*, B. Ramamurthy, *X. Zou*, and N. V. Vinodchandran, "A new cryptographic scheme for securing dynamic conferences in data networks," in **ICC '06. IEEE International Conference on Communications**, vol. 5, pp. 2310–2315, June 2006. doi:10.1109/ICC.2006.255114.
3. *Y. Wang*, B. Ramamurthy, and *X. Zou*, "The performance of elliptic curve based group Diffie-Hellman protocols for secure group communication over ad hoc networks," in **ICC '06. IEEE International Conference on Communications**, vol. 5, pp. 2243–2248, June 2006. doi:10.1109/ICC.2006.255104.
4. *M. Li* and B. Ramamurthy, "Integrated intermediate waveband and wavelength switching for optical WDM mesh networks," in **INFOCOM 2006. The 25th IEEE International Conference on Computer Communications**, pp. 1–12, April 2006. doi:10.1109/INFOCOM.2006.162.
5. *A. Todimala* and B. Ramamurthy, "Approximation algorithms for survivable multicommodity flow problems with applications to network design," in **INFOCOM 2006. 25th IEEE International Conference on Computer Communications**, pp. 1–12, April 2006. doi:10.1109/INFOCOM.2006.92.
6. *M. Li* and B. Ramamurthy, "A generic autonomous clustering-based heterogeneous waveband switching architecture in WDM networks," in *Optical Fiber Communication (OFC) Conference and Exposition and The National Fiber Optic Engineers Conference (NFOEC)*, Technical Digest (CD), pp. 1–3, Optical Society of America, March 2006.
7. *X. Yang*, *L. Shen*, *A. Todimala*, B. Ramamurthy, and T. Lehman, "An efficient scheduling scheme for on-demand lightpath reservations in reconfigurable WDM optical networks," in *Optical Fiber Communication Conference and Exposition and The National Fiber Optic Engineers Conference*, Technical Digest (CD), pp. 1–3, Optical Society of America, March 2006.
8. *X. Zou*, *A. Thukral*, and B. Ramamurthy, "An authenticated key agreement protocol for mobile ad hoc networks," in *Mobile Ad-hoc and Sensor Networks. Second International Conference, MSN 2006. (Lecture Notes in Computer Science Vol. 4325)*, pp. 509–520, Country of Publication: Germany: Springer-Verlag, January 2006. doi:10.1007/11943952_43.

Published in 2005

1. *A. Todimala*, B. Ramamurthy, and N. V. Vinodchandran, "On computing disjoint paths with dependent cost structure in optical networks," in *BROADNETS 2005: 2nd International Conference on Broadband Networks*, vol. 1, pp. 145–154, 2005. doi:10.1109/ICBN.2005.1589610.
2. *W. Yao*, G. Sahin, *M. Li*, and B. Ramamurthy, "Analysis of multi-hop traffic grooming in WDM mesh networks," in *Broadnets 2005: 2nd International Conference on Broadband Networks*, pp. 165–174, 2005. doi:10.1109/ICBN.2005.1589612.
3. *M. Li*, *W. Yao*, and B. Ramamurthy, "Same-destination-intermediate grouping vs. end-to-end grouping for waveband switching in WDM mesh networks," in **ICC 2005: IEEE International Conference on Communications**, vol. 3, pp. 1807–1812, 2005. doi:10.1109/ICC.2005.1494653.
4. *W. Yao* and B. Ramamurthy, "Survivable traffic grooming in WDM mesh networks under SRLG constraints," in **ICC 2005: IEEE International Conference on Communications**, vol. 3, pp. 1751–1755, 2005. doi:10.1109/ICC.2005.1494642.
5. *R.K. Balachandran*, B. Ramamurthy, *X. Zou*, and N. V. Vinodchandran, "CRTDH: an efficient key agreement scheme for secure group communications in wireless ad hoc networks," in **ICC 2005. IEEE International Conference on Communications**, vol. 2, pp. 1123–1127, 2005. doi:10.1109/ICC.2005.1494522.
6. *W. Yao*, *M. Li*, and B. Ramamurthy, "Performance analysis of sparse traffic grooming in WDM mesh networks," in **ICC 2005. IEEE International Conference on Communications**, vol. 3, pp. 1766–1770, 2005. doi:10.1109/ICC.2005.1494645.
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3. B. Ramamurthy, D. Datta, H. Feng, J. P. Heritage, and B. Mukherjee, "Simon: a simulator for optical networks," in *Proceedings of the SPIE - All Optical Networking 1999: Architecture, Control and Management Issues*, vol. 3843, (Country of Publication: USA), pp. 130–135, SPIE-Int. Soc. Opt. Eng SPIE., September 1999.
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1.8 Conference and Workshop *Poster and Short* Papers

1. C. Rowe, R. Oglesby, B. Ramamurthy, and D. Swanson, "Regional climate change and its impacts in the Great Plains region: An end-to-end approach (poster paper)," in *Nebraska State EPSCoR Conference*, (Lincoln, NE), October 2008.
2. *J. Ghoshal*, *M. Wang*, B. Ramamurthy, and L. Xu, "Variable neighbor selection in live peer-to-peer multimedia streaming networks (poster paper)," in *Broadnets 2008: Fifth International Conference on Broadband Communications, Networks and Systems*, (London, U.K.), September 2008.
3. *Y. Xue*, B. Ramamurthy, M. Burbach, and C. Knutson, "A real-time groundwater monitoring network for drought imapact assessment (poster paper)," in *Nebraska Water Colloquium*, (Lincoln, NE), September 2007.
4. *Y. Wang*, B. Ramamurthy, *Y. Xue*, and *X. Zou*, "A key management protocol for hybrid wireless sensor networks (poster paper)," in *Broadnets 2007: Fourth International Conference on Broadband Communications, Networks and Systems*, (Raleigh, NC, USA), September 2007. doi:10.1109/BROADNETS.2007.4550443.
5. *Y. Xue*, B. Ramamurthy, and Y. Lu, "A distributed reliable data transport strategy for event based wireless sensor networks," in *SenSys '06: 4th ACM International conference on Embedded networked sensor systems*, (New York, NY, USA), pp. 407–408, ACM, November 2006. ISBN: 1595933433. doi:10.1145/1182807.1182879.
6. *Y. Wang* and B. Ramamurthy, "A centralized group rekeying scheme for secure group communication in wireless sensor networks (poster)," in *SecureComm 2006, Second International Conference on Security and Privacy in Communication Networks*, (Baltimore, MD), August 2006.

1.9 Magazine Columns

Dr. Ramamurthy has authored several articles for his "Feature on Theses" column in the Optical Networks magazine (2000-2004).

1. B. Ramamurthy, "Review of Laxman Sahasrabuddhe's thesis," *Optical Networks Magazine*, vol. 2, no. 1, pp. 23–25, January 2001. doi:10.1023/A:1017267230889.
2. B. Ramamurthy, "Review of Jonathan P. Lang's thesis," *Optical Networks Magazine*, vol. 2, no. 2, pp. 16–17, March 2001. doi:10.1023/A:1017288014960.
3. B. Ramamurthy, "Review of Hui Zang's thesis," *Optical Networks Magazine*, vol. 3, no. 3, p. 109, May 2002. doi:10.1023/A:1017413816330.

1.10 Tutorials

1. Biswanath Mukherjee and Byrav Ramamurthy. Wavelength-routed optical networks - a tutorial. In *Proceedings, Photonics 2000 Conference*, Calcutta, India, December 2000.
2. Byrav Ramamurthy. Wavelength-routed optical WDM networks. In *Proceedings, Opticomm 2001 Conference*, Denver, Colorado, August 2001.

1.11 Invited Conference and Workshop Presentations

1. M. Li and B. Ramamurthy, "Dedicated path protection for waveband switching in WDM networks (invited paper)," in *Broadnets 2007. Fourth International Conference on Broadband Communications, Networks and Systems*, pp. 584–593, September 2007.
2. Byrav Ramamurthy. "Security for High-Confidence Software Platforms for Cyber-Physical Systems," at the "National Workshop on High Confidence Software Platforms for Cyber-Physical Systems: Research Needs and Roadmap" organized by The High Confidence Software and Systems Coordinating Group Federal Networking and Information Technology Research & Development – National Science and Technology Council, Alexandria, VA, November/December 2006.
3. Byrav Ramamurthy and Xukai Zou. Secure Group Communications," In *Third Annual Regional Workshop in the Mathematical Sciences*, University of Nebraska-Lincoln, Lincoln NE, October 2000.
4. Byrav Ramamurthy. Virtual private networks (VPNs) over optical WDM wavelength-routed networks. In *IEEE Computer Communications Workshop (CCW) 2000*, Captiva Island, FL, October 2000.
5. Byrav Ramamurthy, Debasish Datta, Helena Feng, Jonathan P. Heritage, and Biswanath Mukherjee. SIMON: A Simulator for Optical Networks. In *IEEE Computer Communications Workshop (CCW) 1999*, (Estes Park, CO), October 1999.

1.12 Other Invited Talks

1. Seminar on "Redesigning the Carrier Backbone" at AT&T Labs-Research, Florham Park, New Jersey, May 2009.
2. Seminar on "Application-driven Networking" at Indian Institute of Technology-Madras, Chennai, India, February 2009.
3. Seminar on "Security in Wireless Sensor Networks" at Defence Research Development Organization (DRDO), Bangalore, India, February 2009.
4. Seminar on "Dynamic Lightpath Scheduling in Optical WDM Grid Networks" at Beijing University of Posts and Telecommunications, Beijing, China, May 2008.
5. Seminar on "Optical Grid Networks" at Dept. of Computer Science and Technology, Tsinghua University, Beijing, China, May 2008.
6. Seminar on "Security in Wireless Sensor Networks (WSNs): Attacks and countermeasures" to the NSF-CSEMS Scholarship Recipients, UNL, Fall 2006.
7. Seminar on "Security in Wireless Sensor Networks," Lucent Bell Labs, Bangalore, India, July 2006.
8. Seminar on "Security in Wireless Sensor Networks," Indian Institute of Technology-Madras, Chennai, India, July 2006.
9. Talk on "WLAN Security," Special presentation to NSF-CSEMS Scholarship Recipients, Lincoln, NE, 2005.
10. Seminar on "Wireless Local Area Networks (WLANs): Security Concerns and Solutions" at the Lincoln Downtown Tech Fair, April 2004.
11. Seminar on "Secure Group Communications" at the Nebraska Information Technology Security Day, Lincoln, Nebraska, November 2004.
12. "Wireless Local Area Networks (WLAN) Security," UNL-CSE Graduate recruiting talk at Nebraska Wesleyan University, Lincoln NE, March 2004.
13. Talk on "CSE Graduate Program and Facilities," Special presentation to NSF-CSEMS Scholarship Recipients, Lincoln, NE, October 2003.
14. Talk on "UNL Access Grid Node Facilities," UNL PRISM Priority Initiative sponsored CSE Research Facility Open House, September 2003.
15. Talk on "CSE Graduate Program and Facilities," Special presentation to Dr. Zlatuska, President, Masaryk University, Brno, The Czech Republic, Lincoln, NE, September 2003.
16. Talk on "Grid Computing at UNL," Lincoln MENSA club meeting, September, 2002.
17. "Scalable enterprise systems," J.D. Edwards Co., Denver, CO, August 2001.
18. "Simulation and Modeling of Optical WDM Networks", OPNET Technologies Inc., Washington, DC, August 2000.
19. "Design of wavelength-routed optical WDM networks," Department of Computer Science & Engineering, Indian Institute of Technology (IIT-M), Chennai, India, January 2001.
20. "Design of Optical WDM Networks with Power Considerations", Nokia Research Lab, Boston, MA, Oct. 1999.

21. "On the scalability of the Interactive TV System," Interactive Digital Solutions Unit, Silicon Graphics Inc., Mountain View, CA, Sept. 1995.
22. "On the amplifier placement problem in optical networks using WDM," Department of Computer Science & Engineering, Indian Institute of Technology, Madras, India, April 1997.
23. "Wavelength conversion in WDM networking," Pacific Bell, San Ramon, CA, 1997.
24. "Impact of transmission impairments on teletraffic performance of wavelength-routed optical networks," Lawrence Livermore National Laboratory, Livermore, CA, 1997.
25. "Helping TA's in enabling computer usage for classes — Information dissemination/retrieval," *Professors for the Future* ceremony, Davis, CA, 1996.
26. "Efficient design of Wavelength Division Multiplexed Optical Networks," University of Nebraska-Lincoln (Lincoln, NE), University of Pennsylvania (Philadelphia, PA), University of Arizona (Tucson, AZ), Case Western Reserve University (Cleveland, OH), University of Delaware (Newark, DE), 1998.