Ramesh Govindan

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Professor of Computer Science and Electrical Engineering	Los Angeles, CA 90089-0781
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Education

- *Ph.D. in Computer Science* from the University of California at Berkeley, June 1992. Dissertation topic: Scheduling and I/O Mechanisms for Continuous Media. Advisor: David P. Anderson.
- *M.S. in Computer Science* from the University of California at Berkeley, November 1989.
- *B.Tech. in Computer Science and Engineering* from the Indian Institute of Technology, Madras, August 1987.

Work Experience

Aug 2014 to present *Northrop Grumman Chain in Engineering, Professor of Computer Science and Electrical Engineering* at the University of Southern California.

Nov 2006 to July 2014 *Professor of Computer Science* at the University of Southern California, and Director of the Embedded Networking Laboratory. Research focused on networked embedded systems.

July 2007 to June 2008 *Interim Department Chair* of the Computer Science Department.

July 2002 to Nov 2006 *Associate Professor of Computer Science* at the University of Southern California, and Director of the Embedded Networking Laboratory. Research focused on networked embedded systems.

September 2001 to June 2002 *Project Leader* at the International Computer Science Institute. Involved in several projects on sensor network routing, Internet topology discovery and Internet routing.

November 1997 to August 2001 *Project Leader* at the USC/Information Sciences Institute. Involved in several DARPA and NSF sponsored projects. Managed a team of research staff members, programmers and graduate students.

September 1994 to November 1997 *Computer Scientist* at the USC/Information Sciences Institute. Researcher on the Routing Arbiter project. Responsible for the design and implementation of the inter-domain Route Server, and for the analysis of Internet topology and route stability.

September 1992 to June 1994 *Member of Technical Staff*, Applied Networks Division of Bell Communications Research, Morristown NJ. Participated in the design and implementation of a candidate next-generation Internet protocol. This involved significant standardization activity within the Internet Engineering Task Force.

Awards

- ISSTA (International Symposium on Software Testing and Analysis) Impact Paper Award, 2023.
- ACM Sensys Test-of-Time Award, 2022.
- Best paper award, NSDI 2019.
- IEEE Internet Award 2018.
- Best paper runner-up award, ACM MobiSys 2018
- Applied Networking Research Prize from the Internet Engineering Task Force, 2014
- Distinguished Alumnus Award from the Indian Institute of Technology, Madras, 2014.

- Fellow of the Institute of Electrical and Electronics Engineers (IEEE), 2014.
- Fellow of the Association of Computing Machinery (ACM), 2011.
- Best presentation and demonstration award at TCP: Train-Wreck or Evolution workshop (presenter: K. Psounis), March 2008.
- Best paper award at ImageSense 2008 workshop, November 2008
- Best paper in the Information Processing track, IEEE Symposium on Information Processing in Sensor Networks, April 2008.
- Okawa Foundation Research Grant, October 2004.
- Best Student Paper, 2nd IEEE Symposium on Information Processing in Sensor Networks, April 2004.
- Best Student Paper, 1st ACM Symposium on Networked Embedded Systems, November 2003.
- President of India Gold Medalist, Indian Institute of Technology, Madras, 1987.
- All-India Rank 3rd in the IIT Joint Entrance Examination, 1983.

Bibliometrics

(As of Feb 2024)

- **h-index**: 103
- **citations**: 62005

Publications

Peer-Reviewed Conferences and Workshops

[C1] P. Namyar, B. Arzani, R. Beckett, S. Segarra, H. Raj, U. Krishnaswamy, R. Govindan, and S. Kandula, "Finding Adversarial Inputs for Heuristics using Multi-level Optimization," in *21st USENIX Symposium on Networked Systems Design and Implementation (NSDI 24)*, 2024.

[C2] P. Namyar, B. Arzani, S. Kandula, S. Segarra, D. Crankshaw, U. Krishnaswamy, R. Govindan, and H. Raj, "Solving Max-Min Fair Resource Allocations Quickly on Large Graphs," in *21st USENIX Symposium on Networked Systems Design and Implementation (NSDI 24)*, 2024.

[C3] E. Ghabashneh, C. Bothra, R. Govindan, A. Ortega, and S. Rao, "Dragonfly: Higher perceptual quality for continuous 360° video playback," in *Proceedings of the ACM SIGCOMM 2023 Conference*, ser. ACM SIGCOMM '23, New York, NY, USA: Association for Computing Machinery, 2023, pp. 516–532.

[C4] W. Pang, C. Xia, B. Leong, F. Ahmad, J. Paek, and R. Govindan, "Ubipose: Towards ubiquitous outdoor ar pose tracking using aerial meshes," in *Proceedings of the 29th Annual International Conference on Mobile Computing and Networking*, ser. ACM MobiCom '23, Madrid, Spain: Association for Computing Machinery, 2023.

[C5] H. Qiu, K. Chintalapudi, and R. Govindan, "MCAL: Minimum cost human-machine active labeling," in *The Eleventh International Conference on Learning Representations*, 2023.

[C6] W. Pang, S. Panda, J. Amjad, C. Diot, and R. Govindan, "CloudCluster: Unearthing the functional structure of a cloud service," in *19th USENIX Symposium on Networked Systems Design and Implementation (NSDI 22)*, Renton, WA: USENIX Association, 2022, pp. 1213–1230.

[C7] H. Qiu, P.-H. Huang, N. Asavisanu, X. Liu, K. Psounis, and R. Govindan, "Autocast: Scalable infrastructureless cooperative perception for distributed collaborative driving," in *Proceedings of the 20th Annual International Conference on Mobile Systems, Applications and Services*, ser. MobiSys '22, Portland, Oregon: Association for Computing Machinery, 2022, pp. 128–141.

[C8] S. Supittayapornpong, P. Namyar, M. Zhang, M. Yu, and R. Govindan, "Optimal oblivious routing for structured networks," in *IEEE INFOCOM 2022 - IEEE Conference on Computer Communications*, 2022, pp. 1988–1997.

[C9] J. Wang, T. Lévai, Z. Li, M. A. M. Vieira, R. Govindan, and B. Raghavan, "Quadrant: A cloud-deployable nf virtualization platform," in *SoCC '22: Proceedings of the ACM Symposium on Cloud Computing*, Nov. 7, 2022.

[C10] Y. Hu, R. Ghosh, and R. Govindan, "Scrooge: A cost-effective deep learning inference system," in *SoCC '21: ACM Symposium on Cloud Computing, Seattle, WA, USA, November 1 - 4, 2021*, C. Curino, G. Koutrika, and R. Netravali, Eds., ACM, 2021, pp. 624–638.

[C11] Y. Hu, W. Pang, X. Liu, R. Ghosh, B. Ko, W.-H. Lee, and R. Govindan, "Rim: Offloading inference to the edge," in *Proceedings of the 6th ACM/IEEE Conference on Internet of Things Design and Implementation, 2021*, May 18, 2021.

[C12] P. Namyar, S. Supittayapornpong, M. Zhang, M. Yu, and R. Govindan, "A throughput-centric view of the performance of datacenter topologies," in *ACM SIGCOMM 2021 Conference, Virtual Event, USA, August 23-27, 2021*, F. A. Kuipers and M. C. Caesar, Eds., ACM, 2021, pp. 349–369.

[C13] J. Yen, R. Govindan, and B. Raghavan, "Tools for disambiguating RFCs," in *ANRW '21: Applied Networking Research Workshop, Virtual Event, USA, July 24-30, 2021*, ACM, 2021, pp. 85–91.

[C14] J. Yen, T. Lévai, Q. Ye, X. Ren, R. Govindan, and B. Raghavan, "Semi-automated protocol disambiguation and code generation," in *ACM SIGCOMM 2021 Conference, Virtual Event, USA, August 23-27, 2021*, F. A. Kuipers and M. C. Caesar, Eds., ACM, 2021, pp. 272–286.

[C15] F. Ahmad, H. Qiu, R. Eells, F. Bai, and R. Govindan, "Carmap-fast 3d feature map updates for automobiles," in *17th USENIX Symposium on Networked Systems Design and Implementation (NSDI 20)*, Santa Clara, CA: USENIX Association, Jan. 1, 2020.

[C16] P. Ghosh, J. Bunton, D. Pylorof, M. Vieira, K. Chan, R. Govindan, G. Sukhatme, P. Tabuada, and G. Verma, "Rapid top-down synthesis of large-scale iot networks," in *Proceedings of the IEEE International Conference on Computer Communications and Networks (ICCCN)*, Jan. 1, 2020.

[C17] P. Ghosh, P. Tabuada, R. Govindan, and G. S. Sukhatme, "Persistent connected power constrained surveillance with unmanned aerial vehicles," in *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Jan. 1, 2020.

[C18] X. Liu, Y. Jiang, K.-H. Kim, and R. Govindan, "Grab: Fast and accurate sensor processing for cashier-free shopping," arXiv preprint arXiv:2001.01033, Jan. 7, 2020.

[C19] X. Xu, R. Govindan, A. Mahimkar, N. Shankaranarayanan, J. Wang, and M. Yu, "Enabling premium service for streaming video in cellular networks," in *2020 IFIP Networking Conference (Networking)*, 2020, pp. 244–252.

[C20] J. Yen, J. Wang, S. Supittayapornpong, M. A. M. Vieira, R. Govindan, and B. Raghavan, "Meeting slos in cross-platform nfv," in *Proceedings of the 16th International Conference on Emerging Networking EXperiments and Technologies*, ser. CoNEXT '20, Barcelona, Spain: Association for Computing Machinery, Jan. 1, 2020, pp. 509–523.

[C21] Z. Akhtar, Y. Li, R. Govindan, E. Halepovic, Y. Liu, S. Hao, and S. Sen, "Avic: A cache for adaptive bitrate video," in *15th ACM Conference on emerging Networking EXperiments and Technologies (CoNEXT) Orlando, Florida, U.S. December 9-12, 2019*, Dec. 9, 2019.

[C22] X. Liu, P. Ghosh, O. Ulutan, B. Manjunath, K. Chan, and R. Govindan, "Caesar: Cross-camera complex activity recognition," in *SenSys '19: Conference on Embedded Networked Sensor Systems*, New York, USA: ACM, Nov. 11, 2019.

[C23] S. Supittayapornpong, B. Raghavan, and R. Govindan, "Towards highly available clos-based wan routers," in *ACM SIGCOMM Conference on Network Architectures and Protocols*, Aug. 19, 2019.

[C24] M. Zhang, R. N. Mysore, S. Supittayapornpong, and R. Govindan, "Understanding lifecycle management complexity of datacenter topologies," in *16th USENIX Symposium on Networked Systems Design and Implementation (NSDI)*, Feb. 26, 2019.

[C25] T. Abdelzaher, N. Ayanian, T. Basar, S. Diggavi, J. Diesner, D. Ganesan, R. Govindan, S. Jha, T. Lepoint, B. Marlin, K. Nahrstedt, D. Nicol, R. Rajkumar, S. Russell, S. Seshia, F. Sha, P. Shenoy, M. Srivastava, G. Saukhatme, A. Swami, P. Tabuada, D. Towsley, N. Vaidya, and V. Veeravalli, "Will distributed computing revolutionize peace? the emergence of battlefield iot," in *Proc. IEEE International Conference on Distributed Computing Systems (ICDCS)*, Vienna, Austria, Jul. 2, 2018.

[C26] F. Ahmad, H. Qiu, X. Liu, F. Bai, and R. Govindan, "Quicksketch: Building 3d representations in unknown environments using crowdsourcing," in *2018 21st International Conference on Information Fusion (FUSION)*, Jul. 1, 2018, pp. 2314–2321.

[C27] Z. Akhtar, Y. S. Nam, J. Chen, R. Govindan, E. Katz-Bassett, S. Rao, J. Zhan, and H. Zhang, "Understanding video management planes," in *Proceedings of the Internet Measurement Conference 2018*, ser. IMC '18, Boston, MA, USA: ACM, Nov. 1, 2018, pp. 238–251.

[C28] Z. Akhtar, Y. S. Nam, R. Govindan, S. Rao, J. Chen, E. Katz-Bassett, B. Ribeiro, J. Zhan, and H. Zhang, "Oboe: Auto-tuning video abr algorithms to network conditions," in *Proceedings of the 2018 Conference of the ACM Special Interest Group on Data Communication (SIGCOMM)*, ser. SIGCOMM '18, Budapest, Hungary: ACM, Jan. 1, 2018, pp. 44–58.

[C29] Y. Hu, S. Rallapalli, B. Ko, and R. Govindan, "Olympian: Scheduling gpu usage in a deep neural network model serving system," in *Proceedings of the 19th International Middleware Conference*, ser. Middleware '18, Rennes, France: ACM, Dec. 1, 2018, pp. 53–65.

[C30] X. Liu, S. Nath, and R. Govindan, "Gnome: A practical approach to nlos mitigation for gps positioning in smartphones," in *Proceedings of the 16th Annual International Conference on Mobile Systems, Applications, and Services (Mobisys)*, ser. MobiSys '18, Munich, Germany: ACM, Jan. 1, 2018, pp. 163–177.

[C31] H. Qiu, X. Liu, S. Rallapalli, A. J. Bency, K. Chan, R. Urgaonkar, B. S. Manjunath, and R. Govindan, "Kestrel: Video analytics for augmented multi-camera vehicle tracking," in *2018 IEEE/ACM Third International Conference on Internet-of-Things Design and Implementation (IoTDI)*, Apr. 1, 2018, pp. 48–59.

[C32] H. Qiu, F. Ahmad, F. Bai, M. Gruteser, and R. Govindan, "Avr: Augmented vehicular reality," in *Proceedings of the 16th Annual International Conference on Mobile Systems, Applications, and Services (Mobisys)*, ser. MobiSys '18, Munich, Germany: ACM, Jan. 1, 2018, pp. 81–95.

[C33] T. F. Abdelzaher, M. T. A. Amin, A. Bar-Noy, W. Dron, R. Govindan, R. Hobbs, S. Hu, J. Kim, J. Lee, K. Marcus, S. Yao, and Y. Zhao, "Decision-Driven Execution: A Distributed Resource Management Paradigm for the Age of IoT," in *37th IEEE International Conference on Distributed Computing Systems, ICDCS 2017, Atlanta, GA, USA, June 5-8, 2017*, 2017, pp. 1825–1835.

[C34] G. Kar, S. Jain, M. Gruteser, F. Bai, and R. Govindan, "Real-time Traffic Estimation at Vehicular Edge Nodes," in *Proceedings of the Second ACM/IEEE Symposium on Edge Computing, San Jose / Silicon Valley, SEC 2017, CA, USA, October 12-14, 2017*, 2017, 3:1–3:13.

[C35] G. Kar, S. Jain, M. Gruteser, J. Chen, F. Bai, and R. Govindan, "Pre-DriveID: Pre-trip Driver Identification from In-vehicle Data," in *Proceedings of the Second ACM/IEEE Symposium on Edge Computing, San Jose / Silicon Valley, SEC 2017, CA, USA, October 12-14, 2017*, 2017, 2:1–2:12.

[C36] H. Qiu, F. Ahmad, R. Govindan, M. Gruteser, F. Bai, and G. Kar, "Augmented vehicular reality: Enabling extended vision for future vehicles," in *Proceedings of the 18th International Workshop on Mobile Computing Systems and Applications, HotMobile 2017, Sonoma, CA, USA, February 21 - 22, 2017*, 2017, pp. 67–72.

[C37] Z. Akhtar, A. Hussain, E. Katz-Bassett, and R. Govindan, "DBit: Assessing Statistically Significant Differences in CDN Performance," in *Workshop on Traffic Monitoring and Analysis (TMA)*, Louvain La Neuve, Belgium, Apr. 2016.

[C38] T. Flach, P. Papageorge, A. Terzis, L. Pedrosa, Y. Cheng, T. Karim, E. Katz-Bassett, and R. Govindan, "An Internet-Wide Analysis of Traffic Policing," in *Proceedings of the ACM Conference of the Special Interest Group on Data Communication (SIGCOMM '16)*, Florianópolis, Brazil, Aug. 2016.

[C39] R. Govindan, I. Minei, M. Kallahalla, B. Koley, and A. Vahdat, "Evolve or Die: High-Availability Design Principles Drawn from Google's Network Infrastructure," in *Proceedings of the ACM Conference of the Special Interest Group on Data Communication (SIGCOMM '16)*, Florianópolis, Brazil, Aug. 2016.

[C40] Y. Hu, X. Liu, S. Nath, and R. Govindan, "ALPS: Accurate Landmark Positioning at City Scales," in *the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp 2016)*, Heidelberg, Germany, Sep. 2016.

[C41] Y. Jiang, L. Ravindranath, S. Nath, and R. Govindan, "WebPerf: Evaluating "What-If" Scenarios for Cloud-hosted Web Applications," in *Proceedings of the ACM Conference of the Special Interest Group on Data Communication (SIGCOMM '16)*, Florianópolis, Brazil, Aug. 2016.

[C42] M. Moshref, M. Yu, R. Govindan, and A. Vahdat, "Trumpet: Timely and Precise Triggers in Data Centers," in *Proceedings of the ACM Conference of the Special Interest Group on Data Communication (SIGCOMM '16)*, Florianópolis, Brazil, Aug. 2016.

[C43] X. Xu, Z. Akhtar, R. Govindan, W. Lloyd, and A. Ortega, "Context adaptive thresholding and entropy coding for very low complexity JPEG transcoding," in *2016 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)*, Shanghai, China, Mar. 2016.

[C44] K. Zarifis, M. Holland, M. Jain, E. Katz-Bassett, and R. Govindan, "Modeling HTTP/2 Speed from HTTP/1 Traces," in *Passive and Active Measurement Conference (PAM '16)*, Crete, Greece, Mar. 2016.

[C45] Y.-C. Chiu, B. Schlinker, A. B. Radhakrishnan, E. Katz-Bassett, and R. Govindan, "Are We One Hop Away from a Better Internet?" In *ACM Internet Measurement Conference (IMC)*, Tokyo, Japan: ACM, Oct. 2015.

[C46] A. Fogel, S. Fung, L. Pedrosa, M. Walraed-Sullivan, R. Govindan, R. Mahajan, and T. Millstein, "A General Approach to Network Configuration Analysis," in *Proc. Usenix Symposium on Networked Systems Design and Implementation (NSDI)*, 2015.

[C47] S. Hu, S. Li, S. Yao, L. Su, R. Govindan, R. Hobbs, and T. F. Abdelzaher, "On Exploiting Logical Dependencies for Minimizing Additive Cost Metrics in Resource-Limited Crowdsensing," in *The 11th IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS 2015)*, Fortaleza, Brazil, Jun. 2015.

[C48] Y. Jiang, H. Qiu, M. McCartney, G. Sukhatme, M. Gruteser, F. Bai, D. Grimm, and R. Govindan, "CARLOC: Precisely Tracking Automobile Position," in *Proceedings of the 13th ACM Conference on Embedded Networked Sensor Systems (SenSys)*, Seoul, Korea, Nov. 2015.

[C49] B. Liu, B. Liu, H. Jin, and R. Govindan, "Efficient Privilege De-Escalation for Ad Libraries in Mobile Apps," in *The 13th Annual International Conference on Mobile Systems, Applications, and Services (MobiSys 2015)*, Florence, Italy, May 2015.

[C50] M. Moshref, M. Yu, R. Govindan, and A. Vahdat, "SCREAM: Sketch Resource Allocation for Software-defined Measurement," in *ACM International Conference on emerging Networking EXperiments and Technologies (CoNEXT)*, Heidelberg, Germany, Dec. 2015.

[C51] L. Pedrosa, A. Fogel, N. Kothari, R. Govindan, R. Mahajan, and T. Millstein, "Analyzing Protocol Implementations for Interoperability," in *Proc. Usenix Symposium on Networked Systems Design and Implementation (NSDI)*, 2015.

[C52] Shaohan Hu and Shuochao Yao and Haiming Jin and Yiran Zhao and Yitao Hu and Xiaochen Liu and Nooreddin Naghibolhosseini and Shen Li and Akash Kapoor and William Dron and Lu Su and Amotz Bar-Noy and Pedro Szekely and Ramesh Govindan and Reginald Hobbs and Tarek F. Abdelzaher, "Data Acquisition for Real-time Decision-making under Freshness Constraints," in *The 36th IEEE Real-Time Systems Symposium (RTSS 2015)*, TX, USA, Dec. 2015.

[C53] S. Singh, H. Madhyastha, S. Krishnamurthy, and R. Govindan, "FlexiWeb: Network-Aware Compaction for Accelerating Mobile Web Transfers," in *Proc. ACM MobiCom*, Paris, France, 2015.

[C54] X. Xu, I. Broustis, Z. Ge, R. Govindan, A. Mahimkar, N. K. Shankaranarayanan, and J. Wang, "Magus: Minimizing Cellular Service Disruption during Planned Upgrades," in *ACM International Conference on emerging Networking Experiments and Technologies (CoNEXT)*, Heidelberg, Germany, Dec. 2015.

[C55] X. Xu, Y. Jiang, T. Flach, E. Katz-Bassett, D. Choffnes, and R. Govindan, "Investigating Transparent Web Proxies in Cellular Networks," in *Proc. Passive and Active Measurement Conference*, 2015.

[C56] S. Gu, C. Pan, H. Liu, S. Li, S. Hu, L. Su, S. Wang, D. Wang, M. T. A. Amin, R. Govindan, C. Aggarwal, R. Ganti, M. Srivatsa, A. Bar-Noy, P. Terlecky, and T. Abdelzaher, "Data Extrapolation in Social Sensing for Disaster Response," in *Proc. IEEE International Conference on Distributed Sensor Systems*, Marina Del Rey, CA, 2014.

[C57] S. Hao, B. Liu, S. Nath, W. G. Halfond, and R. Govindan, "PUMA: Programmable UI-Automation for Large-Scale Dynamic Analysis of Mobile Apps," in *Proceedings of the 12th International Conference on Mobile Systems, Applications, and Services (MobiSys'14)*, Bretton Woods, NH., Jun. 2014.

[C58] Y. Jiang, H. Qiu, M. McCartney, W. G. J. Halfond, F. Bai, D. Grimm, and R. Govindan, "CarLog: A Platform for Flexible and Efficient Automotive Sensing," in *Proceedings of the 12th ACM Conference on Embedded Networked Sensor Systems (SenSys'14)*, Memphis, TN, USA, Nov. 2014.

[C59] B. Liu, S. Nath, R. Govindan, and J. Liu, "DECAF: Detecting and Characterizing Ad Fraud in Mobile Apps," in *Proceedings of the 11th USENIX Symposium on Networked Systems Design and Implementation (NSDI'14)*, Seattle, Washington, Apr. 2014.

[C60] M. Moshref, A. Bhargava, A. Gupta, M. Yu, and R. Govindan, "Flow-level State Transition as a New Switch Primitive for SDN," in *Proceedings of the ACM SIGCOMM Workshop on Hot Topics in Software Defined Networking (HotSDN'14)*, Chicago, IL., Aug. 2014.

[C61] M. Moshref, M. Yu, R. Govindan, and A. Vahdat, "DREAM: Dynamic Resource Allocation for Software-defined Measurement," in *Proceedings of the ACM Conference of the Special Interest Group on Data Communication (SIGCOMM '14)*, Chicago, IL., Aug. 2014.

[C62] S. Wang, T. Abdelzaher, S. Gajendran, A. Herga, S. Kulkarni, S. Li, H. Liu, C. Suresh, A. Sreenath, H. Wang, W. Dron, A. Leung, R. Govindan, and J. Hancock, "The Information Funnel: Exploiting Named Data for Information-maximizing Data Collection," in *Proc. IEEE International Conference on Distributed Sensor Systems*, Marina Del Rey, CA, 2014.

[C63] K. Zarifis, T. Flach, S. Nori, D. Choffnes, R. Govindan, E. Katz-Bassett, Z. M. Mao, and M. Welsh, "Diagnosing Path Inflation of Mobile Client Traffic," in *Passive and Active Measurement Conference (PAM '14)*, Los Angeles, CA, Mar. 2014.

[C64] M. Calder, X. Fan, Z. Hu, E. Katz-Bassett, J. Heidemann, and R. Govindan, "Mapping the Expansion of Google's Serving Infrastructure," in *Proc. ACM Internet Measurement Conference*, 2013.

[C65] D. Cheng, H. Hsiung, B. Liu, J. Chen, J. Zeng, R. Govindan, and S. Gupta, "A New March Test for Process-Variation Induced Delay Faults in SRAMs," in *IEEE Asian Test Symposium*, 2013.

[C66] X. Fan, J. Heidemann, and R. Govindan, "Evaluating Anycast in the Domain Name System," in *Proc. of the IEEE Infocom*, 2013.

[C67] Z. Feng, G. Papageorgiu, S. Krishnamurthy, R. Govindan, and T. L. Porta, "Trading Off Distortion for Delay for Video Transmissions in Wireless Networks," in *Proc. of the IEEE Infocom*, 2013.

[C68] T. Flach, N. Dukkipati, A. Terzis, B. Raghavan, N. Cardwell, Y. Cheng, A. Jain, S. Hao, E. Katz-Bassett, and R. Govindan, "Reducing Web Latency: the Virtue of Gentle Aggression," in *Proceedings of the ACM Conference of the Special Interest Group on Data Communication (SIGCOMM '13)*, Aug. 2013.

[C69] S. Hao, D. Li, W. G. Halfond, and R. Govindan, "Estimating Mobile Application Energy Consumption Using Program Analysis," in *35th International Conference on Software Engineering (ICSE 2013)*, May 2013.

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[C71] H. Hsiung, D. Cheng, B. Liu, R. Govindan, and S. Gupta, "Interplay of Failure Rate, Perfromance, and Test Cost in TCAM under Process Variations," in *IEEE Asian Test Symposium*, 2013.

[C72] Y. Jiang, X. Xu, P. Terlecky, T. Abdelzaher, A. Bar-Noy, and R. Govindan, "MediaScope: Selective On-Demand Media Retrieval from Mobile Devices," in *Proceedings of the 12nd ACM/IEEE Conference on Information Processing in Sensor Networks (IPSN'13)*, Apr. 2013.

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[C74] B. Liu, A. Sheth, J. Chandrasekhar, U. Weinberg, and R. Govindan, "AdReveal: Improving Transparency Into Online Targeted Advertising," in *Proc. ACM Hotnets*, 2013.

[C75] M. Moshref, M. Yu, and R. Govindan, "Resource/Accuracy Tradeoffs in Software-Defined Measurement," in *Proceedings of the ACM SIGCOMM Workshop on Hot Topics in Software Defined Networking (HotSDN 2013)*, Aug. 2013.

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Professional Service

Journal Editorships

- Editor in Chief, IEEE Transactions on Mobile Computing, 2011-2013.
- Associate Editor, ACM Computing Surveys: 2006–2008.
- Associate Editor, ACM Transactions on Sensor Networks: 2003–2008.
- Associate Editor, Elsevier Ad-hoc Networks Journal: 2003–2007.
- Associate Editor, ACM/IEEE Transactions on Networking: 2001–2004.
- Area Editor, ACM SIGCOMM Computer Communications Review: 2000–2004.

Special Issue Editorships

- *Wireless Sensor Networks*, Computer Networks Journal, 2003.
- *Embedding the Internet*, Communications of the ACM, 2000.

Community Organization Service

- Awards Chair, ACM SIGCOMM, June 2009 - 2013
- Secretary, ACM MobiCom, July 2009 - 2012

Conference Steering Committees

- ACM SIGCOMM 2021-
- ACM Internet Measurement Conference, 2021-
- ACM SIGCOMM 2015-2018
- ACM MobiCom 2015-2019
- ACM Symposium on Networked Embedded Systems, 2004–2008.
- IEEE Workshop on Networking Meets Databases, 2005–2008.
- IEEE Transaction on Mobile Computing, 2014-2017
- IEEE/ACM Transactions on Networking, 2014-2017.

Conference Organization

- Program co-chair, ACM Internet Measurement Conference 2016, Santa Monica, CA.
- Program co-chair, Eleventh ACM Workshop on Hot Topics in Networks, Hotnets 2012, Seattle, WA, USA.
- Program co-chair, Third International Workshop on Sensing Applications on Mobile Phones (PhoneSense 2012), Toronto, Canada.

- Program co-chair, The Fourth International Workshop on Information Quality and Quality of Service for Pervasive Computing, March 2012, Lugano, Switzerland.
- Program co-chair, 15th ACM Conference on Mobile Computing and Communication, Mobicom, September 2009, Beijing, China.
- General co-chair, Second International Conference on Robot Communication and Coordination, Robocomm, April 2009, Odense, Denmark.
- Program co-chair, ACM SIGCOMM Conference on Network Architectures and Protocols, Philadelphia, PA, August 2005.
- Program co-chair, IEEE Workshop on Networking Meets Databases, Kyoto, Japan, April 2005.
- Program co-chair, the Second ACM Symposium on Networked Embedded Systems, Baltimore, MD, November 2004.
- Program co-chair, NSF Informational Workshop on Networked Sensor Systems, February 2004.
- Program co-chair, the Second ACM Workshop on Wireless Sensor Networks and Applications, San Diego, CA, June 2003.
- Program co-chair, mini-workshop on Internet Routing and Topology at the Institute for Pure and Applied Mathematics, June 2002.

Conference Program Committees

- ACM MobiCom, 2024.
- Usenix Symposium on Networked Systems Design and Implementation 2022.
- ACM Symposium on Cloud Computing, 2021.
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- ACM SIGCOMM Conference on Network Architectures and Protocols, 2016.
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- IEEE/ACM Symposium on Information Processing for Sensor Networks, 2009.
- Second ACM Workshop on Wireless Network Testbeds, 2008.
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- ACM SIGMETRICS Symposium on Performance Evaluation 2003.
- ACM Mobicom Conference on Protocols for Wireless and Mobile Systems 2002.
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