Deborah L. Estrin   **Last Updated 04/20/17**
Cornell Tech
111 8th Avenue, Suite 302
New York, New York 10011
telephone: 1+917-675-4954
e-mail: destrin@cs.cornell.edu
web page: http://destrin.smalldata.io/

EDUCATION

1985-Ph.D.	Electrical Engineering and Computer Science
	Massachusetts Institute of Technology, Boston, MA.
	Supervisors: J. Saltzer (Chair), J. Meldman, M. Sirbu, G. Walker.
	Thesis: Access to Inter-Organization Computer Networks.
1982-M.S.	Electrical Engineering and Computer Science
	Massachusetts Institute of Technology, Boston, MA.
	Supervisors: J. Saltzer (Chair)
	Thesis: Data Communications over Cable
1980-B.S.	Electrical Engineering and Computer Science
	University of California, Berkeley

PROFESSIONAL EXPERIENCE

2016-Current	Associate Dean, Cornell Tech
2013-Current	Professor, Computer Science, Cornell Tech; and
	Professor, Healthcare Policy and Research, Weill Cornell Medical College
	Founder, Health Tech Hub, Jacobs Technion-Cornell Institute, Cornell Tech.
2011-Current	co-Founder, Open mHealth, non-profit startup, http://openmhealth.org
2000-2012	Professor, Computer Science Department, UCLA
2006-2012	Professor, Electrical Engineering, UCLA, Joint Appointment
2002-2012	Director, Center for Embedded Networked Sensing, an NSF Science and Technology Center, Headquartered at UCLA
1998-2000	Professor, Computer Science Department, and Project Leader, USC Information Sciences Institute
1992-1998	Associate Professor, Computer Science Department, USC
1986-1992	Assistant Professor, Computer Science Department, USC

TEACHING EXPERIENCE
Recent Courses Taught and Developed (*)
Cornell Tech (2013-Current)
- INFO5555 Health Tech, Data, and Systems; Spring 15, Fall 15, Spring 17
- CS5450 Networks and Distributed Computing; with Vitaly Schmatikov; Spring 2017
- CS5555 Health Tech Data and Systems; with Daniel Stein (WCMC); Spring 2015
- CS5555 Mobile Health; Spring 2014
- CS5454 Mobile and Ubiquitous Systems; Fall 2013 and 2014
- CS5190 Computer Networking; Spring 2013

UCLA (2001-2012)
- CS219 Participatory Sensing
- CS213 Distributed Embedded Systems
- CS199 Directed Undergraduate Research
- CS194 Honors Undergraduate Research Program
- CS118 Computer Networks (taught annually), BS and MS students

- CS113 Intro to Distributed Embedded Systems

Doctoral Student Advising
Current PhD Students/PostDoctoral Students:
Faisal Alquaddoomi (UCLA), Fabian Okeke (Cornell), Longqi Yang (Cornell), Hongyi Wen (Cornell) Michael Sobolev (Cornell/PostDoc), Eugene Bagdasaryan (Cornell)
Completed PhD Students (alphabetical order):
Lee Breslau (ATT Labs), Nirupama Bulusu (Oregon State), Alberto Cerpa (UC Merced), Ron Cocchi (DirectTV), Jeremy Elson (Microsoft Research), Hossein Falaki (Apple), Deepak Ganesan (U Mass Amherst), Lewis Girod (MIT), Benjamin Greenstein (Google), Ahmed Helmy (Univ Florida), Shai Herzog (Microsoft), Andy Hsieh (UCLA), Bau-Yi Polly Huang (Univ of Taiwan), Josh Hyman (Google), Chalermek Intanagonwiwat (Univ Thailand), Jinha Kang (Google), Donnie Kim (Intel), Teresa Ko (Google), Kanna Satish Kumar (Packet Design), Charley Ching-Gung Liu, Brent Longstaff, Martin Lukac (NexLeaf), Danny Mitzel (Nokia), Minyoung (Min) Mun (Samsung), Andrew Parker (Google), Graham Phillips, Pavlin Radoslavov (ICIR), Nithya Ramanathan (NexLeaf), Anoop Reddy (HP Labs), Sasank Reddy (Kullect), Reza Rejaie (Oregon State), Vids Samanta (Nokia), Thomas Schoellhammer (Google), Puneet Sharma (HP Labs), Thanos Stathopoulos (Google), Gene Tsudik (UC Irvine), Kannan Varadhan (Procket), Hanbiao Wang (St Jude Medical), Liming Wei, Ya Xu (Cisco), Haobo Yu (Packet Design), Yan Yu (MS), Daniel Zappala (Univ Oregon), Jerry Zhao (Google)

HONORS
IEEE Internet Award, May 2017
Doctor Honoris Causa, Uppsala University, Sweden 2011
ACM Sigmobile Outstanding Contribution Award - 2009
National Academy of Engineering, Elected Member - 2009
Doctor Honoris Causa, Ecole Polytechnique Federale de Lausanne, Switzerland 2008
Distinguished Alumnus Award in Computer Sciences & Engineering, UC Berkeley 2008
Women in Technology International Hall of Fame Award - 2008
MacKay Fellow, UC Berkeley – 2007-2008
Campbell Lecturer, Southampton University – May 2007
American Academy of Arts & Sciences, Elected Fellow 2007
Anita Borg Institute's Women of Vision award for Innovation 2007
First Association for Computing Machinery's Committee on Women in Computing (ACM-W) Athena Lecturer – 2006-2007
Jon Postel Endowed Chair – 2005
Institute of Electrical and Electronics Engineers (IEEE) Fellow Award – 2004
American Association for the Advancement of Science (AAAS) Fellow Award – 2001
Association for Computing Machinery (ACM) Fellow Award – 2000
Okawa Foundation Award – 1997
National Science Foundation – Presidential Young Investigator Award – 1987 to 1992
Vinton Hayes Communication Fellowship, MIT – 1981

PROFESSIONAL ACTIVITIES: EDITORIAL and ADVISORY COMMITTEES
Publications and Conferences
- Co-organizer, First ACM Workshop on Digital Biomarkers, Mobisys, June 23, 2017
- Guest co-Editor, IEEE Internet Computing Special Issue - Internet of You: Data Big and Small, To appear 2015
- Technical Program Committee Member, 2nd Physical Analytics workshop (WPA-15), held in conjunction with Mobisys 2015, Florence Italy

- Scientific program committee member, Digital Disease Detection Conference, held in conjunction with WWW 2015, Florence Italy
- Judge, Qualcomm Tricorder XPRIZE, 2014
- Program Co-Chair, Workshop on Physical Analytics, ACM Mobisys, New Hampshire, June 16, 2014
- Organizing committee, HealthDataPalooza, June 2014
- Co-Organizer, Social-Mobile-Cloud meets Medicine, December 17, 2013, Technion University, Haifa Israel.
- Member, World Economic Forum, Network of Global Agenda Councils, Robotics and Smart Devices Council, 2012-2013.
- Technical Program Committee Member, ACM Mobisys, 2013
- Co-PI, Intel Science and Technology Center on Pervasive Computing, http://istc-pc.washington.edu. 2010-2012.
- Steering Committee, Health Data Initiative (HDI), 2012
- Technical Program Committee Member, SocialUrb, Workshop on Social Connections in the Urban Space 2011
- Technical Program Committee Member, PhoneSense, the 2nd International Workshop on Sensing Applications on Mobile Phones 2011 and 2012
- Technical Program Committee Member, MobiHeld, the 3rd ACM SOSP Workshop on Networking, Systems, and Applications on Mobile Handhelds 2011
- IEEE Pervasive Computing Board, 2009 – 2011, Member
- Program Committee Member, 1st Annual Symposium on Computing for Development 2010
- Program Committee Member, MobiHeld, the Second ACM SIGCOMM Workshop on Networking, Systems, and Applications on Mobile Handhelds 2010
- Program Committee Member, MobiSys, International Conference on Mobile Systems, Applications, and Services 2010
- Program Committee Member, Ubicomp, 12th International Conference on Ubiquitous Computing 2010
- Technical Program Committee Member, ACM HotMobile, Eleventh Workshop on Mobile Computing Systems and Applications 2010
- Associate Editor, ACM Transactions on Sensor Networks, 2004-2010
- Program Committee Member, Engaging Data: First International Forum on the Application and Management of Personal Electronic Information 2009
- Program Committee Member, MobiSys, International Conference on Mobile Systems, Applications, and Services 2009
- Editorial Board, Communications of the Association of Computing Machinery (CACM), 2007-2009
- Technical Program Committee Member, Information Processing in Sensor Networks (IPSN) 2009
- Program Committee Member, MobiSys 2008, 6th International ACM Sigmobile Conference on Mobile Systems, Applications, and Services 2008
- Technical Program Committee Member, 18th Annual IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC) 2007
- Technical Program Committee Member, ACM Special Interest Group on Data Communications (ACM Sigcomm - Data Communication Festival) 2007
- Technical Program Committee Member, Fourth Workshop on Embedded Networked Sensors (EmNets), 2007
- Technical Program Committee Member, International Conference on Distributed Computing in Sensor Systems (DCOSS) 2007
- Steering Committee, Sixth International Conference on Information Processing in Sensor Networks (IPSN) 2007
- Program Committee Member, International Workshop on Ambient Intelligence, Media, and Sensing (AIMS) 2007
- Technical Program Committee Member, ACM Mobicom, Workshop on Challenged Networks (Sigcomm CHANTS) 2007

- Program Committee Member, ACM International Workshop on Algorithmic Aspects of Wireless Sensor Networks (ALGOSENSORS) 2006
- Technical Program Committee Member, ACM Special Interest Group on Data Communications Workshop on Challenged Networks (Sigcomm CHANTS) 2006
- Program Committee Member, Fourth Workshop on Hot Topics in Networks, (HotNets IV) 2005
- Program Committee Member, International Conference on Distributed Computing in Sensor Systems (DCOSS), 2005
- Program Committee, ACM International Conference on Embedded Networked Sensor Systems (Sensys) 2004
- Program Committee, ACM International Workshop on Algorithmic Aspects of Wireless Sensor Networks (ALGOSENSORS) 2004
- Program Committee, ACM International Conference on Mobile Systems, Applications, and Services (MobiSys) 2004
- Associate Editor for the IEEE Magazine on Pervasive Computing, 2001-2004
- ACM International Conference on Embedded Networked Sensor Systems (SenSys) 2003 General co-chair and Steering Committee Chair
- Committee Member, Real Time Systems Symposium (RTSS) 2003
- Workshop Program Committee Member, ACM International Workshop on Wireless Sensor Networks and Applications (WSNA) 2003
- Member of program committee, First International Sensor Network Protocols and Applications (SNPA) Workshop, (2002-2003)
- Program Committee Member, ACM OSDI, December 2002
- Program Committee Member, ACM Hotnets, October 2002
- Program Committee Member, ACM International Workshop on Wireless Sensor Networks and Applications (WSNA), September 2002
- Program Committee Member, ACM International Conference on Mobile Computing and Networking (Mobicom), September 2002
- Editor, Eurasip Journal, Special Issue on Sensor Networks, 2002
- Technical Program Committee Member, IEEE Mobile Ad Hoc Networking Committee (MobiHoc), Boston, MA, August 11, 2000
- Co-Editor, Communications of the Association of Computing Machinery (CACM) Special Issue, "Embedding the Internet," May 2000
- ACM Sigcomm, Program Committee Member, 1991-2000
- Program Committee Member, Association for Computing Machinery (ACM) Special Interest Group on Data Communication (Sigcomm), 1991 – 1999
- Technical Program Co-Chair, Association for Computing Machinery (ACM) Special Interest Group on Data Communication (Sigcomm), 1996
- IEEE International Conference on Computer Communications (INFOCOM), Program Committee Member, 1990, 1991, 1993-98
- IEEE/ACM Transactions on Networking, member of the Editorial Board, 1993-1998
- Program Committee Member, IEEE Global Telecommunications Conference (Globecom), 1994
- Guest Co-Editor, IEEE Journal on Selected Areas in Communications, Special Issue on Internetworking, 1993-1994
- Founding Editor, Journal of Internetworking Research and Experience, (Wiley), 1989 – 1993
- Program Committee Member, ACM Conference on Computer and Communications Security, 1993
- Program Committee Member, International Federation for Information Processing (IFIP) International Conference on Integrated Network Management, 1989 – 1993

- Program Committee and Tutorial Organizer, INET 92, Kobe, Japan, 1992
- Program Committee Member, International Federation for Information Processing/Institute of Electrical and Electronics Engineers (IFIP/IEEE) Distributed Systems: Operations and Management Workshop, 1991
- Program Committee Member, IEEE International Conference on Computer Communications (INFOCOM), 1990 – 1991
- Program Committee Member, Institute of Electrical and Electronics Engineers (IEEE) Symposium on Security and Privacy, 1986 – 1989
- Program Committee Member, Telecommunications Policy Research Conference, 1987

Government and Academic Research and Advisory Committees
- National Science Foundation, Computer and Information Science and Engineering (CISE) Advisory Committee, December 2015-18
- National Research Council, Computer Science and Telecommunications Board, Study Chair, Computing Research for Sustainability, 2011-12.
- Institute of Medicine's Planning Committee for the Health Data Initiative Forum, 2012, Member
- Go Viral to Improve Health: NAE-IOM Health Data Collegiate Challenge, 2012, Judge
- Center for Technology and Behavioral Health, Expert Team Working Group on Emerging Technologies, 2011 - 2016, Scientific Advisory Board Member and Chair
- AcademyHealth, Relevant Evidence to Advance Care and Health (REACH) Challenge– Enabling Access to Relevant, Timely, and Useful Information to Improve Health and Health Care, 2011, Judge
- UCLA Mobile Steering Committee, 2011-2012, Member
- National Academy and the United States Institute of Peace Roundtable on Technology, Science and Peacebuilding, 2011 – 2012, Member
- UCLA's Information Technology Planning Board (ITPB), 2010 – Present, Member
- The President's Council of Advisors on Science and Technology (PCAST) and the President's Innovation and Technology Advisory Committee (PITAC) to review the Networking and Information Technology Research and Development (NITRD) Program, 2010 – 2012, Working Group Member
- International Computer Science Institute, (ICSI) Board of Trustees, 2009 – 2012, Member
- Long Term Ecological Research (LTR) Advisory Board, 2009 – 2010, Member
- National Academy of Engineering President's Grand Challenges Advisory Committee, 2009 – 2011, Member
- Alfred P. Sloan Research Fellowships in Computer Science Program Committee, 2008 – 2011, Member
- ACM Athena Lecturer Committee, 2007-2011, Member
- Dan David Prize Review Committee for the chosen field of "Computers and Telecommunications" within the Future Time Dimension, 2010, Member
- Computer Science and Telecommunications Board's (CSTB) Committee on Engaging the Computer Science Research Community in Healthcare Informatics, 2007-2010, Member
- Cork Institute of Technology, Ireland, NEMBES: Networked Embedded Systems Research Programme Advisory Board, 2008-Present, Member
- Computer History Museum Fellows Selection Committee, 2008-2009, Member
- Professor's Chair in Computer Science Search Committee, Faculty of Science and Technology, Uppsala University, 2008, Member
- Crump Institute Faculty Advisory Committee, 2008, Member
- AAAS Electorate Nominating Committee of the Section on Information, Computing and Communication (T), 2007-2010, Elected Member
- Science and Technology Center for Coastal Margin Observation & Prediction (STC CMOP) External Advisory Board, 2007 – 2009, Member
- UCSB, National Consortium on Remote Sensing in Transportation (NCRST) UCSB Department of Transportation (DOT Project) Steering Committee, 2007- 2009, Member
- World Community Grid Advisory Board, 2007- 2009, Member

- University of Southampton, ACM Gender Diversity Committee, 2007-2008, Member
- Initial Nominating Committee for Computing Community Consortium (CCC), November 2006 - April 2007, Member
- IEEE Alexander Graham Bell Committee,2006-2007, Member
- MIT Dept. of Civil and Environmental Engineering Visiting Committee, 2004-2008, Member
- The National Academies Computer Science and Telecommunications Board (CSTB), 2007-2010, Member
- National Ecological Observatory Network (NEON) Senior Management Team, 2003-2008
- Sensor and Sensor Networks subcommittee of the National Ecological Observatory Network (NEON) Network Design Committee, 2003-2007, Chair
- UCLA, Institute for Pure and Applied Mathematics (IPAM) Scientific Advisory Board Member, 2003-2007, Member
- Center for Environmental Analysis – Center of Research Excellence in Science and Technology (CEA-CREST) External Advisory Board 2003, Member
- California Institute for Telecommunications and Information Technology (CAL-IT2) Advisory Board, 2002-2011, Member
- NSF Environmental Research and Education (ERE) Advisory Committee, 2002-2006, Member
- NSF Computer and Information Science and Engineering (CISE) Advisory Committee, 2002-2006, Member
- National Research Council, Computer Science & Telecommunications Board, 1999 – 2000, Editor and Chair, National Research Council, "Embedded Everywhere Report", 2001
- ISAT Study on Sensor Networks, 1997-1998, Chair
- Advanced Research Project Agency, Scalable Systems Study Group, 1996-97, Leader
- National Research Internet Committee, Interdomain Multicast Routing (IDMR) Working Group, 1995 – 2000, Member
- Advanced Research Project Agency, Information Science and Technology (ISAT) Advisory Group, 1995 – 1998, Member
- National Research Council, Computer Science and Telecommunications Board, High Performance and Computing and Communications (HPCC) Committee, 1994, Member
- National Research Council, Computer Science and Telecommunications Board, Committee to Study Changing Nature of Telecommunications Industry, January 1993 - December 1993, Member
- National Research Internet Committee, Source Demand Routing Working Group, 1993 – 1996, Co-Chair
- National Research Council, Computer Science and telecommunications Board, Committee to Study Academic Careers for Experimental Computer Scientists, March 1992 - July 1993, Member
- AAAS Section T on Information Computing and Communication, 1990 –Current, Elected Representative, Member-at-Large
- National Research Internet Committee, End-to-End Research Group, 1990 – 1999, Member
- Office of Technology Assessment, Advanced Information Technology and Research Advisory Panel, 1989 – 1990, Member
- National Research Internet Committee, Internet Research Steering Group, 1989 – 1993, Member
- National Research Internet Committee, Autonomous Networks Research Group, 1987 – 1993, Chairperson
- National Science Foundation, Experimental Research in Electronic Submission (EXPRES) Advisory Committee, 1987 – 1988, Member

Commercial and Non-Profit Venture Advising and Activities
- Advisor, Nanit, http://www.nanit.com/, January 2016-present
- Advisor, MyndYou, https://www.f6s.com/myndyou, January 2016-present
- Advisor, Health Rhythms, https://healthrhythms.com/, August 2015-present
- Advisor, City Health Works, www.cityhealthworks.com, January 2015-present

- Advisor, Future Perfect Ventures GP LLC, June 2014-present
- Advisory Board Member, Nexleaf Analytics, http://nexleaf.org/
- Advisory Board Chair, Open mHealth, June 2012-present
- Mentor, Blueprint Health, 2015-present
- Mentor, NYC BigApps, April-July 2014
- Member of Technical Advisory Board, Kullect, 2011-2013
- Member of Technical Advisory Board, TTI/ Vanguard Inc., 2007- October 2011
- Member of Technical Advisory Board, Sensicast Inc., 2003-2005
- Consulting Professor, Intel Corporation, 2001 – 2003
- Member of Technical Advisory Board, VitalSigns, Inc., 1998 – 2000
- Member of Technical Advisory Board, Fast Forward Networks, Inc., 1998 – 2000
- Board of Directors, Precept Software, Inc., 1995 – 1998
- Consulting Scientist, CISCO Systems, Inc., 1993 – 1998

PUBLICATIONS

Conference Publications

1. YANG, L., FANG, C., JIN, H., HOFFMAN, M.D., ESTRIN, D. 2017. Personalizing Software and Web Services by Integrating Unstructured Application Usage Traces, In *Proceedings of 26th International World Wide Web Conference (WWW)*, Perth, Australia, April 2017.
2. HSIEH, C.H., YANG, L., CUI, Y., LIN, T.Y., BELONGIE, S., ESTRIN, D., 2017. Collaborative Metric Learning, *26th International World Wide Web Conference (WWW)*, Perth, Australia, April 2017.
3. KIZER, J., SAHUGUET, A., LAKIN, N., CARROLL, M., POLLAK, JP AND ESTRIN, D. 2016. Internet Scale Research Studies using SDL-RX. *Presented at the Data For Good Exchange,* September, 2016.
4. YANG, L., FREED, D., WU, A., WU, J., POLLAK, JP. AND ESTRIN, D. 2016. Your Activities of Daily Living (YADL): An Image-based Survey Technique for Patients with Arthritis. In *Proceedings of the 10th International Conference on Pervasive Computing Technologies for Healthcare*, Cancun, Mexico, May 2016: Pervasive Health.
5. HSIEH, C.K., YANG, L., WEI, H., NAAMAN, M. AND ESTRIN, D. 2016. Immersive Recommendation: News and Event Recommendations Using Personal Digital Traces. In *Proceedings of the 25th International World Wide Web Conference (WWW)*, Montréal, Québec, Canada, April 2016.
6. SAY, P.R., STEIN, D., ANCKER J.S., HSIEH A, POLLAK JP. AND ESTRIN, D. 2015. Smartphone Data in Rheumatoid Arthritis - What Do Rheumatologists Want?. In *Proceedings of the AMIA Annual Symposium*, San Francisco, CA, November 2015, AMIA 2015.
7. YANG, L., HSIEH, C. AND ESTRIN, D. 2015. Beyond Classification: Latent User Interests Profiling from Visual Contents Analysis. In *Proceedings of IEEE International Conference on Communications Smart City & Smart World*, London, UK, June 2015, Data Mining Workshop (ICDMW): IEEE International Conference.
8. YANG, L., CUI, Y., ZHANG, F., POLLAK, JP., BELONGIE, S. AND ESTRIN, D. 2015. PlateClick: Bootstrapping Food Preferences Through an Adaptive Visual Interface. In *Proceedings of the 24th ACM International Conference on Information and Knowledge Management*, Melbourne, Australia, October 2015: CIKM 2015.
9. BAUM, A., CARROLL, M., ESTRIN, D., GUNASEKARA, L. AND POLLAK, JP. 2015. Pushcart: Supporting and Scaling Nutritionist-Client Relationships. *In Proceedings of CSCW 2015: Workshop on Moving Beyond e-Health and the Quantified Self*, Vancouver, Canada, March, 2015, CSCW 2015.
10. ALQUADDOOMI, F., KETCHAM, C. and ESTRIN, D. 2014. The Email Analysis Framework: Aiding the analysis of personal natural language texts. In *Workshop on Linking The Quantified Self (LinkQS)*, Santiago, Chile, September, 2014.

11. HSIEH, C.K., TANGMURARUNKIT, H., ALQUADDOOMI, F., JENKINS, J., KANG, J., KETCHAM, C., LONGSTAFF, B., SELSKY, J., SWENDEMAN, D., ESTRIN, D. AND RAMANATHAN, N. Lifestreams: A Modular Sense-making Toolset for Identifying Important Patterns from Everyday Life. In *Proceedings of the 11th ACM Conference on Embedded Networked Sensor Systems (SenSys 2013),* Rome Italy, November 2013.

12. HSIEH, C.K., FALAKI, H., RAMANTHAN, N., TANGMUNARUNKIT, H. AND ESTRIN, D. 2013. HotMobile 2012 Poster: Performance Evaluation of Android IPC for Continuous Sensing Applications, *ACM SIGMOBILE Mobile Computing and Communications Review.*

13. CASILLAS, J., DOOSE-PEÑA, M., ALQUADDOOMI, F., MILLÁN, R., JACOBSON, A., GANZ, P., AND ESTRIN, D. 2012. SMS to Promote Risk-Based Late Effect Screenings? A Technical Pilot for Young Adult Cancer Survivors. In *Proceedings of the 2012 Annual Conference of Critical Mass, the Young Adult Cancer Alliance*, Atlanta, GA, November 2012.

14. KHALAPYAN, Z., TANGMUNARUNKIT, H., SELSKY, J., SAKABU, E., ROCCHIO, R. AND ESTRIN, D. 2012. Hybrid Approaches in Designing Cost Efficient and User Friendly Mobile Interface. In *Proceedings of the 18th International Conference on Human-Computer Interaction with Mobile Devices and Services*, *Workshop on Mobility and Web Behavior*, San Francisco, September 2012, MobileHCI Workshop.

15. RAMANATHAN, N., SWENDEMAN, D., COMULADA, S., DAWSON, B., ROTHERAM-BORUS, M.J. AND ESTRIN, D. 2012. Identifying Preferences for Mobile Health Applications for Self-monitoring and Self-management: Focus Group Findings from HIV-positive Persons and Young Mothers. In *Proceedings of the 5th World Congress on Social Media. Mobile Apps. Internet/Web 2.0*, Boston, MA, September 2012, Medicine 2.0.

16. TANGMUNARUNKIT, H., RAMANATHAN, N., FALAKI, H., JENKINS, J., KETCHAM, C., LONGSTAFF, B., MONIBI, M., OOMS, J., PARAMESWARAN, K., SELSKY, J. AND ESTRIN, D. Measures and Real-Time Feedback of Diet, Activity, and Stress Using GPS and Accelerometer Enabled Smartphones. In *Proceedings of the 5th World Congress on Social Media. Mobile Apps. Internet/Web 2.0,* Boston, MA, September 2012, Medicine 2.0.

17. RAMANATHAN, N., ALQUADDOOMI, F., FALAKI, H., GEORGE, D., HSIEH, C.K., JENKINS, J., KETCHAM, C., LONGSTAFF, B., OOMS, J., SELSKY, J., TANGMUNARUNKIT, H. AND ESTRIN, D. 2012. Ohmage: An open Mobile System for Activity and Experience Sampling. In *Proceedings of the 6th International Conference on Pervasive Computing Technologies for Healthcare*, May 2012, PervasiveHealth.

18. KIM, D., HAN, K. AND ESTRIN, D., 2011. Employing User Feedback for Semantic Location Services, In *Proceedings of the 13th International Conference on Ubiquitous Computing* (Ubicomp'11), Beijing, China, September 2011, Ubicomp'11.

19. ESTRIN, D., ACKER, A., LUKAC, M. AND GRACIAN, I. 2011. Engaging Residents in Community Data Gathering Using Smartphone Technology: A Proof-of-concept Pilot in Boyle Heights. In *Proceedings of Improvements that Work: How to Create Efficiency in Clinical Research Management,* Bethesda, MD, August 2011, 4th Annual National CTSA Community Engagement Conference (Poster).

20. FALAKI, H., MAHAJAN, R. AND ESTRIN, D. 2011. SystemSens: A Tool for Monitoring Usage in Smartphone Research Deployments. In *Proceedings of the 6th ACM International Workshop on Mobility in the Evolving Architecture (ACMMobiArch 2011),* Washington D.C., June 2011.

21. KYUNGSIK, H., GRAHAM, E., VASSALLO, D. AND ESTRIN, D. 2011. Enhancing Motivation in a Mobile Participatory Sensing Project through Gaming. *IEEE International conference on Social Computing* (SocialCom 2011): workshop in Social Connection in the Urban SpacesSocialUrb-2011: 1443-1448.

22. FALAKI, H., LYMBEROPOULOS, D., MAHAJAN, R., KANDULA, S. AND ESTRIN, D. 2010. A First Look at Traffic on Smartphones. In *Proceedings of the Internet Marketing Conference (IMC)*, Barcelona, Spain, November 2010.

23. MUN, M., HAO, S., MISHRA, N., SHILTON, K., BURKE, J., ESTRIN, D., HANSEN, M. AND GOVINDAN, R. 2010. Personal Data Vaults: A Locus of Control for Personal Data Streams. In *Proceedings of the 6th International Conference on Emerging Networking Experiments and Technologies (CoNEXT)*, Philadelphia, PA, November 2010.

24. KIM, D., KIM, Y., ESTRIN, D. AND SRIVASTAVA, M. 2010. SensLoc: Sensing Everyday Places and Paths Using Less Energy. In *Proceedings of the 8th ACM Conference on Embedded Networked Sensor Systems* (SenSys 2010), Zurich, Switzerland, November 2010.

25. HICKS, J., RAMANATHAN, N., KIM, D., MONIBI, M., SELSKY, J., HANSEN, M. AND ESTRIN, D. 2010. AndWellness: An Open Mobile System for AcTIvity and Experience Sampling. In *Proceedings of the Wireless Health 2010: Academic and Research Conference,* La Jolla, CA, October 2010.

26. REDDY, S., ESTRIN, D., HANSEN, M. AND SRIVASTAVA, M. 2010. Examining Micro-Payments for ParTIcipatory Sensing Data Collections. In *Proceedings of the International Conference on Ubiquitous Computing (Ubicomp)*, Copenhagen, Denmark, September 2010.

27. KO, T., SOATTO, S. ANDESTRIN, D. 2010. Warping Background Subtraction. In *Proceedings of the 23rd IEEE Conference on Computer Vision Pattern Recognition (CVPR)*, San Francisco, CA, June 2010.

28. FALAKI, H., MAHAJAN, R., KANDULA, S., LYMBEROPOULOS, D., GOVINDAN, R. AND ESTRIN, D. 2010. Diversity in Smartphone Usage. In *Proceedings of the 8th International Conference on Mobile Systems, Application, and Services (MobiSys'10)*, San Francisco, CA, June 2010.

29. ESTRIN, D., Participatory Sensing: Applications and Architecture. 2010. In *Proceedings of the 8th International Conference on Mobile Systems, Applications and Services (MobiSys'10)*, San Francisco, CA June 2010.

30. REDDY, S., ESTRIN, D. AND SRIVASTAVA, M. 2010. Recruitment Framework for Participatory Sensing Data Collections. In *Proceedings of the 8th International Conference on Pervasive Computing*, Helsinki, Finland, May 2010.

31. REDDY, S., SHILTON, K., DENISOV, G., CENIZAL, C., ESTRIN, D. AND SRIVASTAVA, M. 2010. Biketastic: Sensing and Mapping for Better Biking. In *Proceedings of the 28th ACM Conference on Human Factors in Computing Systems*, Atlanta, Georgia, April 10-15, 2010, CHI 2010.

32. LONGSTAFF, B., REDDY, S. AND ESTRIN, D. Improving Activity Classification for Health Applications on Mobile Devices using Active and Semi-Supervised Learning. In *Proceedings of the 4th International Conference on Pervasive Computing Technologies for Healthcare 2010*, Munich, Germany, March 2010.

33. RAMANATHAN, N., SCHOELHAMMER, T., KOHLER, E., WHITEHOUSE, K., HARMON, T. AND ESTRIN, D. 2009. Suelo: Human-assisted Sensing for Exploratory Soil Monitoring Studies. In *Proceedings of the 7th ACM Conference on Embedded Networked Sensor Systems (SenSys 2009)*, Berkeley, CA, November 2009.

34. KIM, D.H., HIGHTOWER, J., GOVINDAN, R. AND ESTRIN, D. 2009. Discovering Semantically Meaningful Places from Pervasive RF-beacons. In *Proceedings of the 11th International Conference on Ubiquitous Computing (Ubicomp2009),* Orlando, FL, 2009.

35. SHILTON, K., BURKE, J., ESTRIN, D., GOVINDAN, R. AND KANG, J. 2009. Designing the Personal Data Stream: Enabling Participatory Privacy in Mobile Personal Sensing. In *Proceedings of the 37th Research Conference on Communication, Information and Internet Policy (TPRC)*, Arlington, VA, September 2009.

36. RYDER, J., LONGSTAFF, B., REDDY, S. AND ESTRIN, D. 2009. Ambulation: A Tool for Monitoring Mobility Patterns Over Time Using Mobile Phones. IEEE International Conference on Social Computing: Workshop on Social Computing with Mobile Phones & Sensors: Modeling, Sensing and Sharing, Vancouver, Canada, August 2009.

37. KO, T., SOATTO, S. AND Estrin, D. 2009. Categorization in Natural Time-Varying Image Sequences. *Computer Vision Pattern Recognition: Visual Interpretation and Understanding Workshop*, San Francisco, CA, June, 2009.

38. MUN, M., REDDY, S., SHILTON, K., YAU, N., BURKE, J., ESTRIN, D., HANSEN, M., HOWARD, E., WEST, R. AND BODA, P. 2009. PIER, the Personal Environmental Impact Report, as a Platform for Participatory Sensing Systems Research. In *Proceedings of the 7th Annual International Conference on Mobile Systems*, *Applications and Services*, ACM Mobisys 2009, Krakow, Poland, June 2009.

39. REDDY, S., SHILTON, K., BURKE, J., ESTRIN, D., HANSEN, M. AND SRIVASTAVA, M. 2009. Using Context Annotated Mobility Profiles to Recruit Data Collectors in Participatory Sensing. In *Proceedings of the 9*4*th International Symposium on Location and Context Awareness,* LOCA, Tokyo, Japan, May 2009.

40. LUKAC, M., DAVIS, P., CLAYTON, R. AND ESTRIN, D. 2009. Recovering Temporal Integrity with Data Driven Time Synchronization. In *Proceedings of the 8th ACM/IEEE International Conference on Information Processing in Sensor Networks*, IPSN 2009, San Francisco, CA, April 2009.

41. WHITESELL, K., KUTLER, B., RAMANATHAN, N. AND ESTRIN, D. 2008. A System for Determining Indoor Air Quality from Images of an Air Sensor Captured on Cell Phones. In *Proceedings of the Workshop on Applications, Systems, and Algorithms for Image Sensing (ImageSense'08)*, Raleigh, North Carolina, November 2008.

42. HYMAN, J., HANSEN, M., GRAHAM, E. AND ESTRIN, D. 2008. Estimating the Spectral Reflectance of Natural Imagery Using Color Image Features. In *Proceedings of the Workshop on Applications, Systems, and Algorithms for Image Sensing (ImageSense'08),* Raleigh, North Carolina, November 2008.

43. HICKS, J., PAEK, J., COE, S., GOVINDAN, R. AND ESTRIN, D. 2008. An Easily Deployable Wireless Imaging System. In *Proceedings of the Workshop on Applications, Systems and Algorithms for Image Sensing*, *(ImageSense'08)*, Raleigh, North Carolina, November 2008.

44. REDDY, S., SHILTON, K., BURKE, J., ESTRIN, D., HANSEN, M. AND SRIVASTAVA, M. 2008. Evaluating Participation and Performance in Participatory Sensing. In *Proceedings of   International Workshop on Urban, Community, and Social Applications of Networked Sensing Systems* - UrbanSense08, Raleigh, North Carolina, November 2008.

45. SHILTON, K., RAMANATHAN, N., SAMANTA, V., BURKE, J., ESTRIN, D. HANSEN, M. AND SRIVASTAVA, M. 2008. Participatory Design of Urban Sensing Networks: Strengths and Challenges. In *Proceedings of the Participatory Design Conference, Bloomington*, Indiana, October 2008.

46. REDDY, S., BURKE, J., ESTRIN, D., HANSEN, M., SRIVASTAVA, M. 2008. Determining Transportation Mode On Mobile Phones. In *Proceedings of the 12th IEEE International Symposium on Wearable Computers* (ISWC), Pittsburgh, Pennsylvania, September – October 2008.

47. MUN, M., ESTRIN, D., BURKE, J. AND HANSEN, M. Parsimonious Mobility Classification using GSM and WiFi Traces. In *Proceedings of the 5th Workshop on Embedded Networked Sensors (HotEmNets 2008),* Charlottesville, VA, June 2008.

48. ALLEN, M., GIROD, L., NEWTON, R., MADDEN, S., BLUMSTEIN, D. AND ESTRIN, D. 2008. VoxNet: An Interactive, Rapidly-Deployable Acoustic Monitoring Platform. In *Proceedings of the Information Processing in Sensor Networks (IPSN 08),* St. Louis, Missouri, April 22-24, 2008.

49. SHILTON, K., BURKE, J., ESTRIN, D., HANSEN, M. AND SRIVASTAVA, M. 2008. Participatory Privacy in Urban Sensing. In *Proceedings of the International Workshop on Mobile Device and Urban Sensing (MODUS 2008)*, St. Louis, Missouri, April 21, 2008.

50. ALLEN, M., GRAHAM, E., AHMADIAN, S., KO, T., YUEN, E., GIROD, L., HAMILTON, M. AND ESTRIN, D. 2008. Interactive Environmental Sensing: Signal and Image Processing Challenges. In *Proceedings of the ICASSP 2008: IEEE International Conference on Acoustics, Speech and Signal Processing*, Las Vegas, NV, USA, March - April 2008.

51. AGAPIE, E., CHEN, G., HOUSTON, D., HOWARD, E., KIM, J., MUN, M., MONDSCHEIN, A., REDDY, S., ROS ARIO, R., RYDER, J., STEINER, A., BURKE, J., ESTRIN, D., HANSEN, M. AND RAHIMI, M. 2008. Seeing Our Signals: Combining Location Traces and Web-based Models for Personal Discovery. In *Proceedings of the 9th IEEE Workshop on Mobile Computing Systems and Applications (HotMobile 2008)*, Napa Valley, CA, February 2008.

52. KO, T., CHARBIWALA, Z., AHMADIAN, S., RAHIMI, M., SRIVASTAVA, M., SOATTO, S. AND ESTRIN, D. Exploring Tradeoffs in Accuracy Energy and Latency of Scale Invariant Feature Transform in Wireless Camera Networks. In *Proceedings of First ACM/IEEE International Conference on Distributed Smart Cameras* (IC DSC 2007), Vienna, Austria, September 2007.

53. HYMAN, J., GRAHAM, E., HANSEN, M. AND ESTRIN, D. 2007. Imagers as sensors: Correlating plant CO2 uptake with digital visible-light imagery. In *Proceedings of 4th International Workshop on Data Management for Sensor Networks* (DMSN 2007), Vienna, Austria, September 2007.

54. REDDY, S., PARKER, A., HYMAN, J., BURKE, J., ESTRIN, D. AND HANSEN, M. 2007. Image Browsing, Processing, and Clustering for Participatory Sensing: Lessons From a DietSense Prototype. In *Proceedings of the 4th Workshop on Embedded Networked Sensors (EmNets 2007)*, Cork, Ireland, June 2007.

55. ALLEN, M., GIROD, L. AND ESTRIN, D. 2007. Acoustic Laptops as a research enabler. In *Proceedings of the 4th Workshop on Embedded Networked Sensors (EmNets 2007)*, Cork, Ireland, June 25-26, 2007.

10

56. STATHOPOULOS, T., LUKAC, M., McINTIRE, D., HEIDEMANN, J., ESTRIN, D. AND KAISER, W. 2007. End-to-end Routing for Dual-Radio Sensor Networks. *IEEE Infocom*, 2007, Anchorage, Alaska, May 2007.

57. ESTRIN, D. 2007. Reflections on Wireless Sensing Systems: From Ecosystems to Human Systems, *IEEE Radio and Wireless Symposium*. Long Beach, CA, January 2007.

58. RAHIMI, M., AHMADIAN, S., ZATS, D., GARCIA, J., SRIVASTAVA, M. AND Estrin, D. 2006. Magic of Numbers in Networks of Wireless Image Sensors. *Workshop on Distributed Smart Cameras* (DSC), Boulder, Colorado, 2006.

59. BURKE, J., ESTRIN, D., HANSEN, M., PARKER, A., RAMANATHAN, N., REDDY, S. AND SRIVASTAVA, M. 2006. Participatory Sensing. *World Sensor Web Workshop*, ACM Sensys 2006, Boulder, Colorado, 2006.

60. GNAWALI, O., GREENSTEIN, B., JANG, K., JOKI, A., PAEK, J., VIEIRA, M., ESTRIN, D., GOVINDAN, R. AND KOHLER, E. 2006. The Tenet Architecture for Tiered Sensor Networks. ACM Sensys, November 2006.

61. GREENSTEIN, B., MAR, C., PESTEREV, A., FARSHCHI, S., KOHLER, E., JUDY, J. AND ESTRIN, D. 2006. Capturing High-Frequency Phenomena Using a Bandwidth-Limited Sensor Network, ACM SenSys, November 2006.

62. PARKER, A., REDDY, S., SCHMID, T., SAURABH, G., CHANG, D., BURKE, J., HANSEN, M., SRIVASTAVA, M., ESTRIN, D., PAXSON, V. AND ALLMAN, M. 2006. Network System Challenges in Selective Sharing and Verification for Personal, Social, and Urban-Scale Sensing Applications. In *Proceedings of the 5th Workshop on Hot Topics in Networks (HotNets-V)*, Irvine, California, November 2006.

63. LEE, D., KIM, H., TU, S., RAHIMI, M., ESTRIN, D. AND VILLASENOR J.D. 2006. Energy-optimized Image Communication on Resource-constrained Sensor Platforms. *IEEE/ACM International Conference on Information Processing in Sensor Networks: Special Track on Sensor Platforms, Tools and Design Methods* (SPOTS), November 2006.

64. KOHLER, M., HEATON, T.H., GOVINDAN, R., DAVIS, P. AND ESTRIN, D. 2006. Using Embedded Wired and Wireless Seismic Networks in the Moment-resisting Steel Frame Factor Building for Damage Identification. In *Proceedings of the 4th China-Japan-U.S. Symposium on Structural Control and Monitoring*, Hangzhou, China, October 2006.

65. GIROD, L., LUKAC, M., TRIFA, V. AND ESTRIN, D. 2006. The Design and Implementation of a Self- Calibrating Distributed Acoustic Sensing Platform. In *Proceedings of the 4th ACM Conference on Embedded Networked Sensor Systems (SenSys 2006)*, October 2006.

66. LUKAC, M., GIROD, L. AND ESTRIN, D. 2006. Disruption Tolerant Shell. ACM SIGCOMM Workshop on Challenged Networks, Pisa, Italy, September 2006.

67. CHANG, K., YAU, N., HANSEN, M. AND ESTRIN, D. 2006. SensorBase.org – A Centralized Repository to Slog Sensor Network Data. In *Proceedings of the International Conference on Distributed Computing in Sensor Network (DCOSS)/Euro-American Workshop on Middleware for Sensor Networks (EAWMS)*, San Francisco, CA, June 2006.

68. RAMANATHAN, N., BALZANO, L., ESTRIN, D., HARMON, T., HANSEN, M., JAY, J., KAISER, W. AND SUKHATME, G. 2006. Designing Wireless Sensor Networks as a Shared Resource for Sustainable Deve lopment. In *Proceedings of the First International Conference on Information and Communication Technologies and Development (ICTD)*, Berkeley, CA, May 2006.

69. PON, R., BATALIN, M., CHEN, V., KANSAL, A., LIU, D., RAHIMI, M., SHIRACHI, L., SOMASUNDARA, A., YU, Y., HANSEN, M., KAISER, W., SRIVASTAVA, M., SUKHATME, G. AND ESTRIN, D. 2005. Coordinated Static and Mobile Sensing for Environmental Monitoring. IEEE International Conference on Distributed Computing in Sensor Systems (DCOSS), 2005.

70. PON, R., BATALIN, M., GORDON, J., KANSAL, A., LIU, D., RAHIMI, M., SHIRACHI, L., YU, Y., HANSEN, M., KAISER, W., SRIVASTAVA, M., SUKHATME, G. AND ESTRIN, D. 2005. Networked Infomechanical Sysems: A Mobile Embedded Networked Sensor Platform. IPSN 2005, Special track on Platform Tools and Design Methods for Network Embedded Sensors (SPOTS), 2005.

71. RAMANATHAN, N., CHANG, K., KAPUR, R., GIROD, L., KOHLER, E. AND ESTRIN, D. 2005. Sympathy for the Sensor Network Debugger. In *Proceedings of the 3rd ACM Conference on Embedded Networked Sensor Systems (SenSys)*, San Diego, CA, November 2005.

72. RAHIMI, M., BAER, R., IROEZI, O., GARCIA, J., WARRIOR, J., ESTRIN, D. AND SRIVASTAVA, M. 2005. Cyclops: In Situ Image Sensing and Interpretation. In *Proceedings of the 3rd ACM Conference on Embedded Networked Sensor Systems (SenSys)*, San Diego, CA, November 2005.

73. RAHIMI, M., HANSEN, M., KAISER, W., SUKHATME, G. AND ESTRIN, D. 2005. Adaptive Sampling for Environmental Field EstimaSon Using Robotic Sensors. IEEE/RSJ International Conference on Intelligent Robots and Systems, Edmonton, Canada, August 2005.

74. BATALIN, M., KAISER, W., PON, R., SUKHATME, G., POTTIE, G., YU, Y., GORDON, J., RAHIMI, M. AND ESTRIN, D. 2005. Task Allocation for Event-Aware Spatiotemporal Sampling of Environmental Variables. IEEE/RSJ InternaSonal Conference on Intelligent Robots and Systems, Edmonton, Canada, August 2005.

75. WANG, H., CHEN, C.E., ALI, A., ASGARI, S., HUDSON, R.E., YAO, K., ESTRIN, D. AND TAYLOR, C. 2005. Acoustic Sensor Networks for Woodpecker Localization. In *Proceedings of SPIE Conference on Advanced Signal Processing Algorithms, Architectures and Implementation*, San Diego, CA, August 2005.

76. GANESAN, D., GREENSTEIN, B., PERELYUBSKIY, D., ESTRIN, D. AND HEIDEMANN, J. 2005. Multi- Resolution Storage and Search in Sensor Networks. *ACM Transactions on Storage 1*, 3, 277-315, August 2005.

77. RAMANATHAN, N., YARVIS, M., CHHABRA, J., KURSHALNAGAR, N., KRISHNAMURTHY, L. ANDESTRIN, D. 2005. A Stream- Oriented Power Management Protocol for Low Duty Cycle Sensor Network Applications. In *Proceedings of the 2nd IEEE Workshop on Embedded Sensor Networks (EmNets)*, Sydney, Australia, June 2005.

78. CERPA, A., WONG, J., POTKONJAK, M. AND ESTRIN, D. 2005. Temporal Properties of Low Power Wireless Links: Modeling and Implications on Multi-Hop Routing. In *Proceedings of the 6th ACM International Symposium on Mobile Ad Hoc Networking and Computing (MOBIHOC '05)*, Urbana, Champaign, Illinois, May 2005.

79. CERPA, A., WONG, J., KUANG, L., POTKONJAK, M. AND ESTRIN, D. 2005. Statistical Model of Lossy Links in Wireless Sensor Networks. In Proceedings of the ACM/IEEE 4th International Conference on Information Processing in Sensor Networks (IPSN05), Los Angeles, California, April 2005.

80. PON, R., BATALIN, M., GORDON, J., KANSAL, A., LIU, D., RAHIMI, M., SHIRACHI, L., YU, Y., HANSEN, M., KAISER, W.J., SRIVASTAVA M., SUKHATME, G. AND ESTRIN, D. 2005. Networked Infomechanical Systems: A Mobile Wireless Sensor Network Platform. IEEE/ACM Fourth International Conference on Information Processing in Sensor Networks, 376-381.

81. XU, N., RANGWALA, S., CHINTALAPUDI, K., GANESAN, D., BROAD, A., GOVINDAN, R. AND ESTRIN, D. 2004. A Wireless Sensor Network for Structural Monitoring. In *Proceedings of the ACM Conference on Embedded Networked Sensor Systems (SenSys04)*, November 2004.

82. RAMANATHAN, N., KOHLER, E., GIROD, L. AND ESTRIN, D. 2004. Sympathy: A Debugging System for Sensor Networks. Workshop Record of the 1st IEEE Workshop on Embedded Networked Sensors (EmNetS-I), Tampa, Florida, November 2004.

83. BATALIN, M., RAHIMI, M., YU, Y., LIU, D., KANSAL, A., SUKHATME, G., KAISER, W., HANSEN, M., POTTIE, G., SRIVASTAVA, M. AND ESTRIN, D. 2004. Call and Response: Experiments in Sampling the Environment. In *Proceedings of the 2nd ACM Conference on Embedded Networked Sensor Systems (SenSys)*, 25-38, 2004.

84. GIROD, L., STATHOPOULOS, T., RAMANATHAN, N., ELSON, J., ESTRIN, D., OSTERWEIL, E. AND SCHOELLHAMMER, T. 2004. A System for Simulation, Emulation, and Deployment of Heterogeneous Sensor Networks. In *Proceedings of the 2nd ACM Conference on Embedded Networked Sensor Systems (SenSys), 2004.*

85. GREENSTEIN, B., KOHLER, E. AND ESTRIN, D. 2004. A Sensor Network Application Construction Kit (SNACK). In *Proceedings of the 2nd ACM Conference on Embedded Networked Sensor Systems (SenSys)*, 2004.

86. YU, Y., ESTRIN, D., GOVINDAN, R. AND RAHIMI, M. 2004. Using More Realistic Data Models to Evaluate Sensor Network Data Processing Algorithms. 1st IEEE Workshop on Embedded Networked Sensors 2004.

87. STATHOPOULOS, T., KAPUR, R., ESTRIN, D., HEIDEMANN, J. AND ZHANG, L. 2004. Application-Based Collision Avoidance in Wireless Sensor Networks.In IEEE Workshop of Embedded Networked Sensors (EmNet) 2004.

88. SCHOELLHAMMER, T., GREENSTEIN, B., OSTERWEIL, E., WIMBROW, M. AND ESTRIN, 2004. Lightweight Temporal Compression of Microclimate Datasets. EmNets-I 2004.

89. GREENSTEIN, B., KOHLER, E., CULLER, D. AND ESTRIN, D. 2004. Distributed Techniques for Area Computation in Sensor Networks. The 1st IEEE Workshop on Embedded Networked Sensors, EmNets-I 2004.

90. KANSAL, A., RAHIMI, M., KAISER, W., SRIVASTAVA, M., POTTIE, G. AND ESTRIN, D. 2004. Controlled Mobility for Sustainable Wireless Networks. In *Proceedings of IEEE Sensor and Ad Hoc Communications and Networks (SECON)*, 2004.

91. RAHIMI, M., HANSEN, M., KAISER, W., SUKHATME, G. AND ESTRIN, D. 2004. Adaptive Sampling for Environmental Field Estimation Using Robotic Sensors. In *Proceedings of IEEE/RSJ International Conference on Intelligent Robots and Systems*, Edmonton, Canada, August 2004.

92. KANSAL, A., SOMASUNDARE, A., JEA, D., SRIVASTAVA, M.B. AND ESTRIN, D. 2004. Intelligent Fluid Infrastructure for Embedded Networking. In *Proceedings of ACM MobiSys*, June 2004.

93. GIROD, L., ELSON, J., CERPA, A., STATHOPOULOS, T., RAMANATHAN, N. AND ESTRIN, D. 2003. EmStar: a Software Environment for Developing and Deploying Wireless Sensor Networks. In *Proceedings of the 2004 USENIX Technical Conference, June 2004.* (Also available as CENS Technical Report 0009, March 24, 2003.)

94. PON, R., BATALIN, M., YU, Y., ESTRIN, D., POTTIE, G., SRIVASTAVA, M., SUKHATME, G. AND KAISER, W. 2004. Self-Aware Distributed Embedded Systems. In *Proceedings of the 10th IEEE International Workshop of Future Trends of Distributed Computing Systems*, 102-107.

95. WANG, H., YIP, L., YAO, K. AND ESTRIN, D. 2004. Lower Bounds of Localization Uncertainty in Sensor Networks. In *Proceedings of IEEE International Conference on Acoustics*, Speech, May 2004.

96. RAHIMI, M., PON, R., KAISER, W., SUKHATME, G., ESTRIN, D. AND SRIVASTAVA, M. 2004. Adaptive Sampling for Environmental Robotics. In *Proceedings of IEEE International Conference on Robotics and Automation,* 3537-3544.

97. WANG, H., YAO, K., POTTIE, G. AND ESTRIN, D. 2004. Entropy-based Sensor Selection in Localization. In *Proceedings of the Symposium on Information Processing in Sensor Networks (IPSN '04)*, Berkeley, California, April 2004.

98. GANESAN, D., RATNASAMY, S., WANG, H. AND ESTRIN, D. 2003. Coping with Irregular Spatio-temporal Sampling in Sensor Networks. 2nd Workshop on Hot Topics in Networks, (HotNets-II), November 2003.

99. HEIDEMANN, J., SILVA, F. AND ESTRIN, D. 2003. Matching Data Dissemination Algorithms to Application Requirements. In *Proceedings of the 1st ACM Conference on Embedded Networked Sensor Systems (SenSys 2003)*, Los Angeles, CA, 2003.

100. GANESAN, D., GREENSTEIN, B., PERELYUBSKIY, D., ESTRIN, D. AND HEIDEMANN J. 2003. An Evaluation of Multi-resolution Storage for Sensor Networks. In *Proceedings of the 1st ACM Conference on Embedded Networked Sensor Systems (SenSys 2003)*, Los Angeles, CA, 2003.

101. RAHIMI, M., SHAH, H., SUKHATME, G., HEIDEMANN, J. AND ESTRIN, D. 2003. Studying the Feasibility of Energy Harvesting in a Mobile Sensor Network. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA-03)*, Taiwan, September 2003.

102. GREENSTEIN, B., ESTRIN, D., GOVINDAN, R., RATNASAMY, S. AND SHENKER, S. 2003. DIFS: A Distributed Index for Features in Sensor Networks. In *Proceedings of the 1st IEEE International Workshop on Sensor Network Protocols and Applications*, Anchorage, AK. May 2003.

103. RAHIMI, M., SHAH, H., SUKHATME, G., HEIDEMANN, J. AND ESTRIN, D. 2003. Energy Harvesting in Mobile Sensor Networks. In *Proceedings of the IEEE International Conference on Robotics and Automation*, Taipei, Taiwan, May 2003.

104. ZHAO, J., GOVINDAN, R. AND ESTRIN, D. 2003. Computing Aggregates for Monitoring Wireless Sensor Networks. In *Proceedings of 1st International Workshop on Sensor Network Protocols and Applications*, Anchorage, AK, May 2003.

105. WANG, H., ELSON, J., GIROD, L., ESTRIN, D. AND YAO, K. 2003. Target Classification and Localization in Habitat Monitoring. In *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2003)*, Hong Kong, China, April 2003.

106.CHEN, J.C., YIP, L., WANG, H., MANIEZZO, D., HUDSON, R.E., ELSON, J., YAO, K. AND ESTRIN, D. 2003. DSP Implementation of a Distributed Acoustical Beamformer on a Wireless Sensor Platform. In *Proceedings of IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2003)*, Hong Kong, China. April 2003.

107.BYCHKOVSKIY, V., MEGERIAN, S., ESTRIN, D. AND POTKONJAK, M. 2003. A Collaborative Approach to In-Place Sensor. In *Proceedings of the 2nd International Workshop on Information Processing in Sensor Networks (IPSN '03)*, *2634*, 301-316.

108.ELSON, J., GIROD, L. AND ESTRIN, D. 2002. Fine-Grained Network Time Synchronization Using Reference Broadcasts. In *Proceedings of the 5th Symposium on Operating Systems Design and Implementation (OSDI 2002)*, Boston, MA, 1-17.

109.GANESAN, D., ESTRIN, D. AND HEIDEMANN, J. 2002. DIMENSIONS: Why do we need a new Data Handling Architecture for Sensor Networks? In *Proceedings of the 1st Workshop on Hot Topics in Networks (HotNets-I)*, Princeton, New Jersey, 1-6.

110.BULUSU, N., BYCHKOVSKIY, V., ESTRIN, D. AND HEIDEMANN, J. 2002. Scalable, Ad Hoc Deployable RF-based Localization. In *Proceedings of the Grace Hopper Conference on Celebration of Women in Computing*, Vancouver, Canada, 1-5.

111.BRAGINSKY, D. AND ESTRIN, D. 2002. Rumor Routing Algorithm For Sensor Networks. In *Proceedings of the 1st ACM International Workshop on Wireless Sensor Networks and Applications (WSNA 2002)*, 1- 12.

112.RATNASAMY, S., KARP, B., YIN, L., YU, F., ESTRIN, D., GOVINDAN, R. AND SHENKER, S. 2002. GHT: A Geographic Hash Table for Data-Centric Storage. In *Proceedings of the 1st ACM International Workshop on Wireless Sensor Networks and Applications (WSNA 2002)*, Atlanta, Georgia, September 28, 2002.

113.RATNASAMY, S., ESTRIN, D., GOVINDAN, R., KARP, B., SHENKER, S., YIN, L. AND YU, F. 2002. Data-Centric Storage in Sensornets. In *Proceedings of the 1st Workshop on Sensor Networks and Applications (WSNA)*, Atlanta, GA, 1-14.

114.GIROD, L., BYCHKOVSKIY, V., ELSON, J. AND ESTRIN, D. 2002. Locating Tiny Sensors in Time and Space: A case study. In *Proceedings of the International Conference on Computer Design (ICCD 2002)*, Freiburg, Germany, 1-6.

115.ELSON, J., GIROD, L. AND ESTRIN, D. 2002. Short Paper: A Wireless Time-Synchronized Cots Sensor Platform Part I: System Architecture. In *Proceedings of the IEEE CAS Workshop on Wireless Communications and Networking*, Pasadena, CA, 1-4.

116.KRISHNAMACHARI, B., ESTRIN, D. AND WICKER, S. 2002. The Impact of Data Aggregation in Wireless Sensor Networks. In *Proceedings of the International Workshop on Distributed Event Based Systems (DEBS)*, Vienna, Austria, 1-4.

117.INTANAGONWIWAT, C., ESTRIN, D., GOVINDAN, R. AND HEIDEMANN, J.S. 2002. Impact of Network Density on Data Aggregation in Wireless Sensor Networks. In *Proceedings of the 22nd International Conference on Distributed Computing Systems (ICDCS '02),* Vienna, Austria, 457-458.

118.YE, W., HEIDEMANN, J. AND ESTRIN, D. 2002. An Energy-Efficient MAC Protocol for Wireless Sensor Networks. In *Proceedings of the 21st International Annual Joint Conference of the IEEE Computer and Communications Societies (INFOCOM 2002)*, New York, NY, 1-10.

119.CERPA, A. AND ESTRIN, D. 2002. Ascent: Adaptive Self-Configuring sEnsor Networks Topologies. In *Proceedings of the 21st International Annual Joint Conference of the IEEE Computer and Communications Societies (INFOCOM 2002)*, New York, NY, 1-10.

120.ZHAO, Y., GOVIDAN, R. AND ESTRIN, D. 2002. Residual Energy Scans for Monitoring Wireless Sensor Networks. In *Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC '02)*, Orlando, FL, 1-16.

121.GANESAN, D., GOVINDAN, R., SHENKER, S. AND ESTRIN, D. 2001. Highly-Resilient, Energy-Efficient Extended Abstract Multipath Routing in Wireless Sensor Networks. In *Proceedings of ACM Symposium on Mobile Ad Hoc Networking and Computing (MOBIHOC 2001)*, Long Beach, CA, 1-13. [One of the Best Poster Papers from MOBIHOC 2001].

122. GANESAN, D., KRISHNAMACHARI, B., WOO, A., CULLER, D., ESTRIN, D. WICKER, S. 2001. Extended Abstract, Large-Scale Network Discovery: Design Tradeoffs in Wireless Sensor Systems. In *Proceedings of the Symposium on Operating Systems Principles (SOSP 2001)*, Lake Louise, Banff, Canada, poster, 1-3.

123. BULUSU, N., ESTRIN, D. AND HEIDEMANN, J. 2001. Tradeoffs in Location Support Systems: The Case for Quality- Expressive Location Models for Applications. In *Proceedings of the Ubicomp 2001 Workshop on Location Modeling*, Atlanta, GA, 1-6.

124. ELSON, J. AND ESTRIN, D. 2001. Random, Ephemeral Transaction Identifiers in Dynamic Sensor Networks. In *Proceedings of the 21st International Conference on Distributed Computing Systems (ICDCS-21)*, Phoenix, AZ, 1-13.

125. GIROD, L. AND ESTRIN, D. 2001. ROBUST RANGE ESTIMATION USING ACOUSTIC AND MULTIMODAL SENSING. In *Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2001). Maui, Hawaii, 1-9.*

126. HEIDEMANN, J., SILVA, F., INTANAGONWIWAT, C., GOVINDAN, R., ESTRIN, D. AND GANESAN, D. 2001. Building Efficient Wireless Sensor Networks with Low-Level Naming. In *Proceedings of the Symposium on Operating Systems Principles (SOSP)*, Lake Louise, Banff, Canada, 1-14.

127. YA, X., HEIDEMANN, J. AND ESTRIN, D. 2001. Geography-informed Energy Conservation for Ad Hoc Routing. In *Proceedings of the ACM SIGMOBILE 7th International Conference on Mobile Computing*, Rome, Italy, July 2001.

128. BULUSU, N., ESTRIN, D., GIROD, L. AND HEIDEMANN, J. 2001. Scalable Coordination for Wireless Sensor Networks: Self-Configuring Localization Systems. In *Proceedings of the 6th International Symposium on Communication Theory and Applications (ISCTA 2001)*, Ambleside, Lake District, UK, 1-6.

129. ESTRIN, D., GIROD, L., POTTIE, G. AND SRIVASTAVA, M. 2001. Instrumenting the World with Wireless Sensor Networks. In *Proceedings of the International Conference on Acoustics, Speech, and Signal Processing* (ICASSP 2001), Salt Lake City, Utah, 1-4.

130. YE, W., VAUGHAN, R.T., SUKHATME, G.S., HEIDEMANN, J., ESTRIN, D. AND MATARIC, M.J. 2001. Evaluating Control Strategies for Wireless-Networked Robots Using an Integrated Robot and Network Simulation. In *Proceedings of the IEEE International Conference on Robotics and Automation (ICRA 2001)*, Seoul, Korea, May 2001.

131. RADOSLAVOV, P., PAPADOPOULOS, C., GOVINDAN, R. AND ESTRIN, D. 2001. A Comparison of Application-Level and Router-Assisted Hierarchical Schemes for Reliable Multicast. In *Proceedings of the INFOCOM 2001 Conference*, Anchorage, Alaska, 229-238.

132. ELSON, J. ANDESRIN, D. 2001. Time Synchronization for Wireless Sensor Networks. In *Proceedings of the 2001 International Parallel and Distributed Processing Symposium (IPDPS)*, Workshop on Parallel and Distributed Computing Issues in Wireless Networks and Mobile Computing, San Francisco, CA, 1-6.

133. CERPA, A., ELSON, J., ESTRIN, D., GIROD, L., HAMILTON, M. AND ZHAO, J. 2001. Habitat Monitoring: Application Driver for Wireless Communications Technology. In *Proceedings of the 1st ACM SIGCOMM Workshop on Data Communications in Latin America and the Caribbean*, San Jose, Costa Rica, 1-8.

134. BULUSU, N., HEIDEMANN, J. AND ESTRIN, D. 2001. Adaptive Beacon Placement. In *Proceedings of the 21st International Conference on Distributed Computing Systems (ICDCS-21)*, Phoenix, Arizona, 1-10.

135. HEIDEMANN, J., BULUSU, N., ELSON, J., INTANAGONWIWAT, C., LAN, K.C., XU, Y., YE, W., ESTRIN, D. AND GOVINDAN, R. 2001. Effects of Detail in Wireless Network Simulation. In *Proceedings of the SCS Communication Networks and Distributed Systems Modeling and Simulation Conference*, Phoenix, AZ, 1-10.

136. KUMAR, S., ALAETTINOGLU, C. AND ESTRIN, D. 2000. SCalable Object-tracking through Unattended Techniques (SCOUT). In *Proceedings of the 8th IEEE International Conference on Network Protocols [IEEE ICNP-2000]*, Osaka, Japan, 253-263.

137. SUKHATME, G.S., ESTRIN, D., CARON, D., MATARIC M. AND REQUICHA, A. 2000. Proposed Approach for Combining Distributed Sensing, Robotic Sampling, and Offline Analysis for in situ Marine Monitoring. In *Proceedings of Advanced Environmental and chemical Sensing Technology (SPIE 2000), 4205*.

138. HELMY, A., GUPTA, S.K.S., ESTRIN, D., CERPA, A., AND YU, Y. 2000. Systematic Performance Evaluation of Multipoint Protocols. In *Proceedings of the FORTE 2000 Conference,* Pisa, Italy, 189-204.

139. REDDY, A., ESTRIN, D. AND GOVINDAN, R. 2000. Fault Isolation in Multicast Trees. In *Proceedings of the ACM SIGCOMM 2000 Conference*, Stockholm, Sweden, 1-26.

140. INTANAGONWIWAT, C., GOVINDAN, R. AND ESTRIN, D. 2000. Directed Diffusion: A Scalable and Robust Communication Paradigm for Sensor Networks. In *Proceedings of the 6th Annual International Conference on Mobile Computing and Networking (MOBICOM 2000)*, Boston, MA, 56-67.

141. REJAIE, R., YU, H., HANDLEY, M., ESTRIN, D. 2000. Multimedia Proxy Caching Mechanism for Quality Adaptive Streaming Applications in the Internet. In *Proceedings of the IEEE INFOCOM 2000 Conference on Computer Communications*, Tel Aviv, Israel, March 2000.

142. LIU, C.G., ESTRIN, D., SHENKER, S. AND ZHANG, L., 1999. Recovery Timer Adaptation in SRM. In *Proceedings of the International Conference in Computer Communications*, ICCC'99, Tokyo, Japan, *1-11*.

143. REJAIE, R., HANDLEY, M. AND ESTRIN, D. 1999. Quality Adaptation for Congestion Controlled Video Playback over the Internet. In *Proceedings of ACM SIGCOMM '99,* Cambridge, MA, August-September 1999.

144. ESTRIN, D., GOVINDAN, R., HEIDEMANN, J. AND KUMAR, S. 1999. Next Century Challenges: Scalable Coordination in Sensor Networks. In *Proceedings of the 5th Annual International Conference on Mobile Computing and Networks (MobiCOM'99)*, Seattle, Washington, 263-27.

145. GOVINDAN, R., FABER, T., HEIDEMANN, J. AND ESTRIN, D. 1999. Ad-Hoc Smart Environments. In *Proceedings of the DARPA/NIST Workshop on Smart Environments*, Atlanta, Georgia, 1-3.

146. REJAIE, R., HANDLEY, M., YU, H. AND ESTRIN, D. 1999. Proxy Caching Mechanism for Multimedia Playback Streams in the Internet. In *Proceedings of the 4th International Web Cache Workshop,* San Diego, CA, March-April, 1999.

147. REJAIE, R., HANDLEY, M. AND ESTRIN, D. 1999. RAP: An End-to-end Rate-based Congestion Control Mechanism for Realtime Streams in the Internet. In *Proceedings of the IEEE Infocom 1999 Conference*, New York, N.Y., March 1999.

148. ESTRIN, D., HANDLEY, M., HELMY, A., HUANG, P. AND THALER, D. 1999. A Dynamic Bootstrap Mechanism for Rendezvous-based Multicast Routing. In *Proceedings of the IEEE Infocom 1999 Conference*, New York, N.Y., March 23-25, 1999.

149. HELMY, A., ESTRIN, D. AND GUPTA, S. 1998. Fault-oriented Test Generation for Multicast Routing. In *Proceedings of the FORTE/PSTV'98 Conference*, Paris, France, November 1998.

150. KUMAR, S., RADOSLAVOV, P., THALER, D., ALAETTINOGLU, C., ESTRIN, D. AND HANDLEY, M. The MASC/BGMP Architecture for Inter-Domain Multicast Routing. In *Proceedings of the ACM Sigcomm 1998 Conference*, Vancouver, British Columbia, Canada, August -September, 1998.

151. HELMY, A. AND ESTRIN, D. 1998. Simulation-based STRESS Testing Case Study: A Multicast Routing Protocol. In *Proceedings of the Sixth International Symposium on Modeling Analysis and Simulation of Computer and Telecommunications Systems (MASCOTS'98)*, Montreal, Canada, July 1998.

152. HUANG, P., ESTRIN, D. AND HEIDEMANN, J. 1998. Enabling Large-Scale Simulations: Selective Abstraction Approach to the Study of Multicast Protocols. In *Proceedings of the Sixth International Symposium on Modeling Analysis and Simulation of Computer and Telecommunications Systems (MASCOTS 1998)*, Montreal, Canada, July 1998.

153. HEIDEMANN, J., GOVINDAN R. AND ESTRIN, D. 1998. Configuration Challenges for Smart Spaces. In *Proceedings of the DARPA/NIST Smart Spaces Workshop*, July 1998.

154. VARADHAN, K., ESTRIN, D. AND FLOYD, S. 1998. Impact of Network Dynamics on End-to-End Protocols: Case Studies in Reliable Multicast. In *Proceedings of the 3rd IEEE Symposium on Computers and Communications (ISCC'98) Conference*, Athens, Greece, June -July, 1998

155. HELMY, A. AND ESTRIN, D. 1997. STRESS Testing Applied to a Multicast Routing Protocol. In *Proceedings of the Sixth International Symposium on Modeling, Analysis, and Simulation*, Ottawa, Canada, December 1997.

156. HUANG, P., ESTRIN, D. AND HEIDEMANN, J. 1997. Enabling Large-Scale Simulations: Selective Abstraction Approach to the Study of Multicast Protocols. In *Proceedings of the Sixth International Symposium on Modeling, Analysis, and Simulation*, Ottawa, Canada, December 1997.

157. SHARMA, P., ESTRIN, D., FLOYD, S. AND JACOBSON, V. 1997. Scalable Timers for Soft State Protocols. In *Proceedings of IEEE Infocom '97*, Kobe, Japan, April 7-11, 1997.

16

158. MITZEL, D., ESTRIN, D., SHENKER, S. AND ZHANG, L. 1996. A Study of Reservation Dynamics in Integrated Services Packet Networks. In *Proceedings of IEEE Infocom '96*, San Francisco, CA, March 1996.

159. WEI, L. AND ESTRIN, D. 1995. Multicast Routing in Dense and Sparse Modes: Simulation Study of Tradeoffs and Dynamics. In *Proceedings of the 1995 International Conference on Computer Communications and Networks (ICCCN),* Las Vegas, Nevada, September 1995.

160. WEI, L. AND ESTRIN, D. 1994. The Trade-offs of Multicast Trees and Algorithms. In *Proceedings of the 1994 International Conference on Computer Communications and Networks (ICCCN)*, September 1994.

161. DEERING, S., ESTRIN, D., FARINACCI, D., JACOBSON, V., LIU, C. AND WEI, L. 1994. An Architecture for Wide-Area Multicast Routing. In *Proceedings of ACM Sigcomm '94*, London, England, 126-135, August - September, 1994.

162. MITZEL, D., ESTRIN, D., SHENKER, S. AND ZHANG, L. 1994. An Architectural Comparison of ST-II and RSVP. *In Proceedings of IEEE Infocom '94*, Toronto, Canada, June 1994.

163. WEI, L., LIAW, F., ESTRIN, D., ROMANOW, A. AND LYON, T. 1992. Analysis of Resequencer Model for Multicastover ATM Networks. In *Proceedings of the 3rd International Workshopon Network and Operating Systems*, November 1992.

164. ESTRIN, D., REKHTER, Y. AND HOTZ, S. 1992. Scalable Inter-Domain Routing Architecture. In *Proceedings of ACM (Sigcomm '92)*, Baltimore, Maryland, 40-52.

165. ESTRIN, D. AND MITZEL, D. 1992. An Assessment of State and Lookup Overhead in Routers. In *Proceedings of IEEE INFOCOM '92*, Florence, Italy, May 1992.

166. MEYERS, K. AND ESTRIN, D. 1992. A Network Management Tool for Inter-Domain Policy Routing. In *Proceedings of IEEE NOMS '92 Network Operations & Management Symposium*, Memphis, TN, April 1992.

167. COCCI, R., ESTRIN, D., SHENKER, S. AND ZHANG, L. 1991. A Study of Priority Pricing in Multiple Service Class Networks. In *Proceedings of the ACM SIGCOMM 1991 Conference*, Zurich, Switzerland, 123-130.

168. ESTRIN, D. AND ZHANG, L. 1991. Design Considerations for Usage Accounting and Feedback in Internetworks. In *Proceedings of IFIP International Conference on Integrated Network Management*, April 1991.

169. ESTRIN, D. AND OBRACZKA, K. 1991. Connectivity Database Overhead for Inter-Domain Policy Routing. In *Proceedings of IEEE INFOCOM '91*, Miami, Florida, April 1991.

170. ESTRIN, D. AND TSUDIK, G. 1991. Secure Policy Enforcement in Internetworks. In *Proceedings of DIMACS (1991) (Series in Discrete Mathematics and Theoretical Computer Science) Workshop*, October, 1989, ACM/AMS DIMACS Distributed Computing and Cryptography, *2*.

171. HART, P. AND ESTRIN, D. 1990. Computer Integration: A Co-Requirement for Effective Inter-Organization Computer Network Implementation. In *Proceedings of the Conference on Computer Supported Cooperative Work*, October 1990.

172. BRESLAU, L. AND ESTRIN, D. 1990. Design of Inter-Administrative Domain Routing Protocols. In *Proceedings of ACM Sigcomm '90, 20*, 4, Philadelphia, PA, 231-241.

173. HART, P. AND ESTRIN, D. 1990. Inter-organization Computer Networks: Indications of Shifts in Interdependence. In *Proceedings of ACM Conference on Office Information Systems, published as SIGOIS Bulletin, 11*, 1-2.

174. ESTRIN, D. AND TSUDIK, G. 1989. Security Issues in Policy Routing. In *Proceedings of IEEE Symposium on Research in Security and Privacy*, May 1989.

175. ESTRIN, D. AND TSUDIK, G. 1987. Visa Scheme for Inter-Organization Network Security. In *Proceedings of IEEE Symposium on Security and Privacy*, April 1987.

176. ESTRIN, D. 1986. The Organizational Consequences of Inter-Organization Computer Networks. In *Proceedings of ACM Conference on Office Information Systems Published as SIGOIS Bulletin, 7*, 2-3.

177. ESTRIN, D. 1986. Inter-Organization Networks: Implications of Access Control Requirements for Interconnection Protocols. In *Proceedings of ACM Sigcomm '86*, August 1986.

178. ESTRIN, D. 1986. Interconnection of Private Networks: A Link between Industrial and Telecommunications Policy. In the *Proceedings of the Fourteenth Annual Telecommunications Policy Research Conference*, April 1986.

179.ESTRIN, D. 1985. Non-Discretionary Controls for Inter-Organization Networks. In *Proceedings of IEEE Symposium on Security and Privacy*, April 1985.

Journal Publications

1. PATRICK, K., HEKLER, E.B, ESTRIN, D., MOHR, D.C., RIPER, H., CRANE, D., GODINO, J., RILEY, W.T., 2016. *The Pace of Technologic Change: Implications for Digital Health Behavior Intervention Research.* American Journal of Preventive Medicine. 2016 Nov; 51(5):816-824.
2. AUNG, M. S. H., ALQUADDOOMI, F., HSIEH, A., RABBI, M., YANG, L., POLLAK, J.P., ESTRIN, D. and CHOUDHURY, T. 2016. Leveraging Multi-Modal Sensing for Mobile Health: a Case Review in Chronic Pain. *IEEE Journal of Selected Topics in Signal Processing*. 2016 Aug; 10(5):962-9744
3. ESTRIN, D. AND JUELS, A. 2016 Winter. Reassembling Our Digital Selves. *Daedalus, 145*, 1 , 43-53 (doi: 10.1162/DAED_a_00364).
4. KUMAR, S., ABOWD, G.D., ABRAHAM, W.T., Al'ABSI, M., BECK, J. G., CHAU, D. H., CONDIE, T., CONROY, D.E., ERTIN, E., ESTRIN, D., GANESAN, D., LAM, C., MARLIN, B., MARSH, C. B., MURPHY, S. A., NAHUM-SHANI, I., PATRICK, K., REHG, J.M., SHARMIN, M., SHETTY, V., SIM, I., SPRING, B., SRIVASTAVA M. AND Wetter, D.W. 2015. Center of excellence for mobile sensor Data-to-Knowledge (MD2K). *Journal of the American Medical Informatics Association*. 2015 Aug; 22(6):1137-1142.
5. TANGMUNARUNKIT, H., HSIEH, C.K., LONGSTAFF, B., NOLEN, S., JENKINS, J., KETCHAM, C., SELSKY, J., ALQUADDOOMI, F., GEORGE, D., KANG, J., KHALAPYAN, Z., OOMS, J., RAMANATHAN, N. AND ESTRIN, D. 2015. Ohmage: a General and Extensible End-to-End Participatory Sensing Platform. *ACM Transactions on Intelligent Systems and Technology (TIST),* 2015 April; 6(3):38.1-38.21.
6. SWENDEMAN, D., COMULADA, S., WORTHMAN, C. AND ESTRIN, D., ROTHERAM-BORUS, MJ., Nithya RAMANATHAN, N., 2015. Smartphone self-monitoring to support self-management among people living with HIV: Perceived benefits and theory of change from a mixed-methods, randomized pilot study. *Journal of Acquired Immune Deficiency Syndromes, JAIDS,* 2013 April; 82(4): e38-46.
7. ESTRIN, D. 2014. small data, where n=me. *CACM, Viewpoint Column, Communications of the ACM*, *57*, 4, 32-34.
8. MUN, M.Y., KIM, D.H., SHILTON, K., ESTRIN, D., HANSEN, M., GOVINDAN, R. 2014. PDVLoc: a Personal Data Vault for Controlled Location Data Sharing. *ACM Transactions on Sensor Networks (TOSN), 10*, 4.
9. CHEN, C., HADDAD, D., SELSKY, J., HOFFMAN, J.E., KRAVITZ, R.L., ESTRIN, D. AND SIM I. 2012. Making Sense of Mobile Health Data: An Open Architecture to Improve Individual- and Population-Level Health. *Journal of Medical Internet Research, 14*, 4.
10. RAMANATHAN, N., SWENDEMAN, D., COMULADA, S., ESTRIN, D. AND ROTHERAM-BORUS, M.J. 2012. Identifying preferences for mobile health applications for self-monitoring and self-management: focus group findings from HIV-positive persons and young mothers. *International Journal of Medical Informatics.*
11. SHILTON, K. AND ESTRIN, D. 2012. Ethical Issues in Participatory Sensing. *Journal of Professional and Research Ethics*.
12. KANG, J., SHILTON, K., BURKE, J. A., ESTRIN, D. AND HANSEN, M. 2012. Self-surveillance privacy. *Iowa Law Review, 97*, 809.
13. ARAB, L., ESTRIN, D., KIM, D.H., BURKE, J. AND GOLDMAN, J. 2011. Feasibility testing of an automated image-capture method to aid dietary recall. *European Journal of Clinical Nutrition*.
14. ESTRIN, D. AND SIM, I. 2010. Open mHealth Architecture: An Engine for Health Care Innovation. *Science Magazine, AAAS, 330*, 6005, 759-760.
15. KO. T., HYMAN, J., GRAHAM, E., ESTRIN, D. AND SOATTO, S. 2010. Embedded Imagers: Detecting, Localizing and Recognizing Objects and Events in Natural Habitats. *Sensor Networks and Applications*.
16. KO. T., AHMADIAN, S., HICKS, J., RAHIMI, M., ESTRIN, D., SOATTO, S., COE, S. AND HAMILTON, M.P. 2010. Heartbeat of a Nest: Using imagers as biological sensors. *ACM Transactions of Sensor Networks (TOSN), 6*, 3.

17. REDDY, S., MUN, M., BURKE, J., ESTRIN, D., HANSEN, M. AND SRIVASTAVA, M. 2010. Using Mobile Phones to Determine Transportation Modes. *ACM Transactions on Sensor Networks (TOSN), 6*, 2.
18. ESTRIN, D. 2010. Participatory sensing: applications and architecture. *Internet Computing, IEEE, 14*, 1, 12-42.
19. LEE, D., KIM, H., RAHIMI, M., ESTRIN, D. AND VILLASENOR, J.D. 2009. Energy-Efficient Image Compression for Resource-Constrained Platforms. *IEEE Transactions on Image Processing, 18*, 9, 2100-2113.
20. SAMANTA, V., KNOWLES, C., BURKE, J., WAGMISTER, F., ESTRIN, D. 2008. Metropolitan Wi-Fi Research Network in the Communities of the Los Angeles State Historic Park. *Journal of Community Informatics, Field Note, Special Issue: Wireless Networking for Communities, Citizens and the Public Interest. 4*, 1.
21. GOLDMAN, J., SHILTON, K., BURKE, J., ESTRIN, D., HANSEN, M., RAMANATHAN, N., REDDY, S., SAMANTA, V. AND SRIVASTAVA, M. 2008. Participatory Sensing: A citizen-powered approach to illuminating the patterns that shape our world. *White Paper published by Woodrow Wilson International Center for Scholars*.
22. KIM, H., RAHIMI, M., LEE, D., ESTRIN, D. AND VILLASENOR, J. D. 2008. Energy-aware high resolution image acquisition via heterogeneous image sensors. *IEEE Journal of Selected Topics in Signal Processing*.
23. GIROD, L., RAMANATHAN, N., ELSON, J., STATHOPOULOS, T., LUKAC, M. AND ESTRIN, D. 2007. Emstar: a Software Environment for Developing and Deploying Heterogeneous Sensor-Actuator Networks. *ACM Transactions on Sensor Networks, 3*, 3, 1-35.
24. ABDELZAHER, T., ANOKWA, Y., BODA, P., BURKE, J., ESTRIN, D., GUIBAS, L., KANSAL, A., MADDEN, S. AND REICH, J. 2007. Mobiscopes for Human Spaces. *IEEE Pervasive Computing - Mobile and Ubiquitous Systems, 6*, 2.
25. HAMILTON, M. P., GRAHAM, E., RUNDEL, P., ALLEN, M., KAISER, W., HANSEN, M. AND ESTRIN. D. New Approaches in Embedded Networked Sensing for Terrestrial Ecological Observatories. *Environmental Engineering Science, 24*, 2, 192-204.
26. GOLDMAN, J., RAMANATHAN, N., AMBROSE, R., CARON, D., ESTRIN, D., FISHER, J., GILBERT, R., HANSEN, M., HARMON, T., JAY, J., KAISER, W., SUKHATME, G. AND TAI, Y. 2007. Distributed Sensing Systems for Water Quality Assessment and Management. *White Paper published and prepared by the Foresight and Governance Project at the Woodrow Wilson International Center for Scholars*.
27. WANG, H., YAO, K. AND ESTRIN, D. 2005. Information-Theoretic Approaches for Sensor Selection and Placement in Sensor Networks for Target Localization and Tracking. *Journal of Communications and Networks, 7*, 4, 438-449.
28. RAMANATHAN, N., KOHLER, E. AND ESTRIN, D. 2005. Towards a Debugging System for Sensor Networks. *International Journal for Network Management*.
29. WANG, H., CHEN, C.E., ALI, A., ASGARI, S., HUDSON, R.E., YAO, K., ESTRIN, D. AND TAYLOR, C. 2005. Acoustic Sensor Networks for Woodpecker Localization. In *Proceedings of SPIE conference on Advanced Signal Processing Algorithms, Architectures, and Implementations*, August 2005.
30. GANESAN, D., GREENSTEIN, B., ESTRIN, D., HEIDEMANN, J. AND GOVINDAN, R. 2005. Multi-resolution Storage and Search in Sensor Networks. *ACM Transactions on Storage*.
31. CERPA, A., WONG, J., POTKONJAK, M. AND ESTRIN, D. 2005. Temporal properties of Low Power Wireless Links: Modeling and Implications on Multi-Hop Routing. *IEEE Transactions on Mobile Computing (TMC)*.
32. ELSON, J., GIROD, L. AND ESTRIN, D. 2004. EmStar: Development with High System Visibility. *IEEE Wireless Communication Magazine*.
33. BERGAMO, P., ASGARI, S., WANG, H., MANIEZO, D., YIP, L., HUDSON, R., YAO, K. AND ESTRIN, D. 2004. Collaborative Sensor Networking Towards Real-Time Acoustical Beamforming in Free Space and Limited Reverberance. *IEEE Transactions On Mobile Computing, 3*, 3.
34. CERPA A. AND ESTRIN, D. 2004. ASCENT: Adaptive Self-Configuring sEnsor Networks Topologies. *IEEE Transactions on Mobile Computing (TMC), Special Issue on Mission-Oriented Sensor Networks, 3*, 3, 272-285.
35. GANESAN, D., CERPA, A., YU, Y., YE, W., ZHAO, J. AND ESTRIN, D. 2004. Networking Issues in Sensor Networks. *Journal of Parallel and Distributed Computing (JPDC), Special issue on Frontiers in Distributed Sensor Networks, Elsevier Publishers, 64*, 6, 799-814.
36. RADOSLAVOV, P., PAPADOPOULOS, C., GOVINDAN, R. AND ESTRIN, D. 2004. A Comparison of Application-Level and Router-Assisted Hierarchical Schemes for Reliable Multicast. *IEEE/ACM Transactions on Networking, 12*, 3, 469-482.

37. SZEWCZYK, R., OSTERWEIL, E., POLASTRE, J., HAMILTON, M., MAINWARING, A. AND ESTRIN, D. 2004. *Habitat Monitoring with Sensor Networks. Communications of the ACM, 47*, 6, 34-40.

38. HELMY, A., GUPTA, S. AND ESTRIN, D. 2004. The STRESS Method for Boundary-Point Performance Analysis fo End-to-End Multicast Timer Suppression Mechanisms. *IEEE/ACM Transactions on networking, 12*, 1.

39. BULUSU, N., HEIDEMANN, J., ESTRIN, D. AND TRAN, T. 2004. Self-configuring Localization Systems: Design and Experimental Evaluation. *ACM Transactions on Embedded Computing Systems (ACM TECS), Special issue on networked embedded systems, 3*, 1, 24-60.

40. GREENSTEIN, B., ESTRIN, D., GOVINDAN, R., RATNASAMY, S. AND SHENKER, S. 2003. DIFS: A Distributed Index for Features in Sensor Networks. *Elsevier Journal of Ad Hoc Networks*.

41. CHEN, J.C., YIP, L., ELSON, J., WANG, H., MANIEZZO, D., HUDSON, R.E., YAO, K. AND ESTRIN, D. 2003. Coherent Acoustic Array Processing and Localization on Wireless Sensor Network. In *Proceedings of the IEEE, 91*, 8.

42. RATNASAMY, S., KARP, B., SHENKER, S., ESTRIN, D., GOVINDAN, R., YIN, L. AND YU, F. 2003. Data-Centric Storage in Sensornets with GHT, a Geographic Hash Table, Mobile Networks and Applications (MONET). *Journal of Special Issues on Mobility of Systems, Users, Data, and Computing: Special Issue on Algorithmic Solutions for Wireless, Mobile, Ad Hoc and Sensor Networks, Kluwer*.

43. WANG, H., ESTRIN, D. AND GIROD, L. 2003. Preprocessing in a Tiered Sensor Network for Habitat Monitoring. *EURASIP Journal on Applied Signal Processing, 2003*, 4, 392-401.

44. INTANAGONWIWAT, C., GOVINDAN, R., ESTRIN, D., HEIDEMANN, J. AND SILVA, F. 2003. Directed Diffusion for Wireless Sensor Networking. *IEEE/ACM Transactions on Networking, 11*, 1, 2-16.

45. GANESAN, D., GOVINDAN, R., SHENKER, S. AND ESTRIN, D. 2001. Highly-Resilient, Energy-Efficient Multipath Routing in Wireless Sensor Networks. *Mobile Computing and Communications Review, 5*, 4, 10-24.

46. ESTRIN, D., HANDLEY, M., HEIDEMANN, J., McCANNE, S., XU, Y. AND YU, H. 2000. Network Visualization with the VINT Network Animator Nam. *IEEE Computer Magazine, 33*, 11, 63-68.

47. BULUSU, N., HEIDEMANN, J. AND ESTRIN, D. 2000. GPS-less Low-Cost Outdoor Localization for Very Small Devices. *IEEE Personal Communications, 7*, 5, 28-34.

48. REDDY, A., ESTRIN, D. AND GOVINDAN, R. 2000. Large-Scale Fault Isolation. *IEEE Journal on Selected Areas in Communications (May 2000) Special Issue on Network Management, 18*, 5, 1-24.

49. BRESLAU, L., ESTRIN, D., FALL, K., FLOYD, HEIDEMANN, J., HELMY, A., HUANG, P., McCANNE, S., VARADHAN, K., XU, Y. AND YU, H. 2000. Advances in Network Simulation. *IEEE Computer Magazine, 33*, 5, 59-67.

50. ESTRIN, D., GOVINDAN, R. AND HEIDEMANN, J.S. 2000. Embedding the Internet: Introduction. *Communications of the ACM Journal, 43*, 5, 38-41.

51. VARADHAN, K., GOVINDAN, R. AND ESTRIN, D. 2000. Persistent Route Oscillations in Inter-Domain Routing. *Computer Networks and ISDN Systems Journal, 32,* 1, 1-23.

52. LIU, C., ESTRIN, D., SHENKER, S. AND ZHANG, L. 1998. Local Error Recovery in SRM: Comparison of Two Approaches. *ACM/IEEE Transactions on Networks, 6*, 6, 686-699.

53. GOVINDAN, R., ALAETTINOGLU, C., VARADHAN, K. AND ESTRIN, D. 1998. Route Servers for Inter-Domain Routing. *Computer Networks and ISDN Systems, 30*, 1157-1174.

54. HERZOG, S., SHENKER, S. AND ESTRIN, D. 1997. Sharing the Cost of Multicast Trees: An Axiomatic Analysis. *IEEE/ACM Transactions on Networking, 5*, 6, 847-860.

55. DEERING, S., ESTRIN, D., FARINACCI, D., JACOBSON, V., LIU, C. AND WEI, L. 1996. The PIM Architecture for Wide-Area Multicast Routing. *IEEE/ACM Transactions on Networks, 4*, 2, 153-162.

56. SHENKER, S., CLARK, D., ESTRIN, D. AND HERZOG, S. 1996. Pricing in Computer Networks: Reshaping the Research Agenda. *ACM Computer Communications Review Journal, 26*, 2, 19-43.

57. COCCHI, R., ESTRIN, D., SHENKER, S. AND ZHANG, L. 1993. Pricing the Computer Networks: Motivation, Formulation and Example. *IEEE/ACM Transactions on Networks, 1*, 6, 614-627.

58. ESTRIN, D., STEENSTRUP, M. AND TSUDIK, G. 1993. Protocols for Route Establishment and Packet Forwarding Across Multi-Domain Internets. *IEEE/ACM Transactions on Networks*.

59. ZHANG, L, DEERING, S., ESTRIN, D., SHENKER, S. AND ZAPPALA, D. 1993. RSVP: A New Resource ReSerVation Protocol. *IEEE Network Magazine, 7*, 5, 8-18.

60. DANZIG, P., JAMIN, S., CACERES, R., MITZEL, D. AND ESTRIN, D. 1992. An Empirical Workload Model for Driving Wide-Area TCP/IP Network Simulations. *Journal of Internetworking Research and Experience, 3*, 1.

61. BRESLAU, L. AND ESTRIN, D. 1991. Design and Evaluation of Inter-Domain Policy Routing Protocols. *Internetworking Research and Experience, 2*, 4.

62. ESTRIN, D. AND TSUDIK, G. 1991. Secure Control of Transit Internetwork Traffic. *Computer Networks and ISDN Systems, 22*, 363-382.

63. HART, P. AND ESTRIN, D. 1991. Inter-Organization Networks, Computer Integration, and Shifts in Interdependence: The Case of the Semiconductor Industry. *ACM Transactions on Information Systems, 9*, 4.

64. ESTRIN, D. AND TSUDIK, G. 1991. An End-to-End Argument for Network Layer, Inter-Domain Access Controls. *Journal of Internetworking Research and Experience, 2*, 71-85.

65. ESTRIN, D. 1991. Policy Requirements for Inter Administrative Domain Routing. Computer Networks and ISDN Systems, 22, 179-191.

66. ESTRIN, D. AND STEENSTRUP, M. 1991. Inter-Domain Policy Routing: Overview of Architecture and Protocols. *ACM SIGCOMM Computer Communication Review, 21*, 1, 71-78.

67. ESTRIN, D., MOGUL, J. AND TSUDIK, G. 1989. Visa Protocols for Controlling Inter-Organizational Datagram Flow. *IEEE Journal on Selected Areas in Communications, 7*, 4.

68. ESTRIN, D. 1987. Interconnection Protocols for Interorganization Networks*. IEEE Journal on Selected Areas in Communications, SAC-5,* 9, 1480-1491.

69. ESTRIN, D. 1987. Interconnection of Private Networks: A Link between Industrial and Telecommunications Policy. *Telecommunications Policy, 247-258*.

70. ESTRIN, D. 1987. Controls for Interorganization Networks. *IEEE Transactions on Software Engineering, SE-13*, 2, 249-261.

71. ESTRIN, D. 1985 Inter-Organizational Networking: Stringing Wires Across Administrative Boundaries. *Computer Networks and ISDN Systems, 9*, 281-295.

72. ESTRIN, D. AND SIRBU, M. 1984. Cable Television Networks as an Alternative to the Local Loop. *Journal of Telecommunications Networks, 3*, 2, 103-115.

Books/Book Chapters

1. HOFFMAN, J., RAMSEY, K. AND ESTRIN, D. 2015. Open Architecture and Standards in Mobile Health. In *Behavioral Healthcare and Technology: Using Science-Based Innovations to Transform Practice,* L. A. Marsch, S. E. Lord, and J. Dallery, Oxford University Press, 264-280.

2. ACQUISTI, A., et al. 2013. Personal Data Service: Accessing and Aggregating Personal Data. In *My Life, Shared – Trust and Privacy in the Age of Ubiquitous Experience Sharing*, Alessandro Acquisti, Ioannis Krontiris, Marc Langheinrich, and Martina Angela, Schloss Dagstuhl - Leibniz-Zentrum für Informatik, 87-92.

3. HOFFMAN, J., RAMSEY, K. AND ESTRIN, D. 2015. Open Architecture and Standards in Mobile Health. In *Leveraging Technology to Transform Behavioral Healthcare*, Marsch, L. et al (Eds), Oxford University Press.

4. MILLETT, L AND ESTRIN, D. (Eds). 2012. Computing Research for Sustainability. National Academy Press.

5. SAVVIDES, A., GIROD, L., SRIVASTAVA, M. AND ESTRIN, D. 2004. Localization in Sensor Networks. In *Wireless Sensor Networks*, Znati, Radhavendra and Sivalingam.

6. KAISER, W., POTTIE, G., SRIVASTAVA, M., SUKHATME, G., VILLASENOR, J. AND ESTRIN, D. 2003. Networked Infomechanical Systems (NIMS) for Ambient Intelligence. In *Ambient Intelligence*, J. Rabaey et. Al., Springer Berlin Heidelberg.

7. ELSON, J. AND ESTRIN, D. 2004. Wireless Sensor Networks: A Bridge to the Physical World. Introductory Chapter. In *Wireless Sensor Networks*, Kluwer, 2004.

8. ESTRIN, D., BORRIELLO, G., COLWELL, R.P., FIDDLER, J., HOROWITZ, M., KAISER, W.J., LEVESON, N.G., LISKOV, B.H., LUCAS, P., MAHER, D.P., MANKIEWICH, P.M., TAYLOR, R. AND WALDO, J. 2001. Embedded, Everywhere: A Research Agenda for Networked Systems of Embedded Computers. National Academy Press, Washington, D.C., 1-215.
9. BRESLAU, L. AND ESTRIN, D. 1990. Design of Inter-Administrative Domain Routing Protocols. Computer Communications: Architecture, Protocols, and Standards 3rd Edition, William Stallings.

Internet RFCs

1. ESTRIN, D., FARINACCI, D., HELMY, A., THALER, D., DEERING, S., HANDELY, M., JACOBSON, V., LIU, C., SHARMA, P. AND WEI, L. 1998. Protocol Independent Multicast - Sparse Mode (PIM-SM): Protocol Specification. Experimental RFC, (Internet RFC).
2. DEERING, S., ESTRIN, D., FARINACCI, D., HANDLEY, M., HELMY, A., JACOBSON, V., LIU, C., SHARMA, P., THALERA, D. AND WEI, L. 1997. Protocol Independent Multicast - Sparse Mode (PIM-SM): Motivation and Architecture. Experimental RFC, (Internet RFC).
3. ESTRIN, D., FARINACCI, D., HELMY, A., JACOBSON, V. AND WEI, L. 1996. Protocol Independent Multicast - Dense Mode (PIM-DM): Protocol Specification. Experimental RFC, (Internet RFC).
4. ESTRIN, D., FARINACCI, D., HELMY, A., THALER, D., DEERING, S., HANDLEY, M., JACOBSON, V., LIU, C., SHARMA, P. AND WEI, L. PIM Multicast Border Router (PMBR) specification for connecting PIM-SM domains to a DVMRP Backbone. (InternetRFC).
5. ESTRIN, D. AND HELMY, A. 1995. USC Implementation for PIM-SM, (Internet RFC).

Reference   *References available upon request*