

Curriculum Vitae for Sosale Shankara Sastry

S. Shankar Sastry
Dean of Engineering
Director, Richard C. Blum Center for Developing Economies
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Education

B.Tech. (1977), Indian Institute of Technology, Bombay, India.
M.S. EECS (1979), University of California, Berkeley.
M.A. Mathematics (1980), University of California, Berkeley.
Ph.D. EECS (1981), University of California, Berkeley.

Experience in Higher Education

- Dean Of Engineering, 2007-present
- Director, Richard C. Blum Center for Developing Economies, 2007- present.
- Professor of Mechanical Engineering, 2007- present.
- Director and PI of NSF Science and Technology Center “TRUST: Team for Research in Ubiquitous Security Technologies”, 2005-present.
- Director (CITRIS), 2005- 2007
- Nippon Electronics Corporation (NEC) Distinguished Professorship in the College of Engineering and the Walter A. Haas School of Business, 2002- present.
- Chairman, Department of Electrical Engineering and Computer Sciences, U. C. Berkeley, 2001-2004.
- Professor of Bioengineering, 1999- present.
- Director, Electronics Research Laboratory, U. C. Berkeley, 1996-1999.
- Professore A Contratto, Universita di Pisa, Summer 1995, Summer 1998.
- Gordon McKay Professor of EECS (tenured appointment), Harvard University, 1994.
- Visiting Vinton Hayes Professor of EECS, MIT, Fall 1992.
- Professore A Contratto, Universita di Roma. "La Sapienza", Summer 1990, Summer 1991.
- Professor, University of California, Berkeley, 1988 – present.
- Associate Professor, University of California, Berkeley, 1984 -1988.
- Visiting Fellow, Australian National University, Canberra, Australia, Summer 1985.
- Assistant Professor, University of California, Berkeley, 1983 - 1984.
- Assistant Professor, Massachusetts Institute of Technology, Cambridge, 1980 - 1982.

Experience in Government

- Nominated as Member 2008, Naval Research Advisory Council, NRAC (not accepted)
- Member, 2008-09, Defense Sciences Board (DSB),
- Member, President's Council on Science and Technology--Technical Advisory Group (PCAST-TAG) on Networking and Information Technology (OSTP nomination with Presidential concurrence), 2006- 2007.
- Member, AFRL Commander's Command and Control Software Windtunnel Study, 2004-2006.
- Member, DoD TARA Review Board for Information Technology, 2004-2006.
- Member, DIA-NRC Panel on Emerging Threats and Technologies, from September 2004- present.
- Member DARPA Information Sciences and Technology Study Group, 2003-2006.
- Member, Air Force Science Advisory Board AF-SAB (Sec AF nomination with Presidential concurrence), October 2002-2006.
- Director, Information Technology Office, DARPA, (DARPA director nomination. with Sec Def. concurrence) Nov. 1999-Feb 2001.

Professional Experience

- Consultant to United Technologies, Boeing, Lockheed Martin, Finmeccanica, Ford, GM (India Labs), Honeywell. Past consulting includes IBM, HP, GE, Intuitive Surgical, Guidant, Telecom Italia, and numerous venture firms including KPCB, USVP, APAX.
- Scientific Advisory Board to Finmeccanica, SPROUT, 2007-present.
- Scientific Advisory Board to Scientific Systems Inc. 2006-2007.
- Directeur Recherche, Poste Rouge, Centre Nationale Recherche Scientifique (CNRS), Toulouse, France, Summer 1991.
- Graduate Student Aide, Honeywell Systems and Control Inc., Minneapolis, 1978.
- Research Engineer, Bharat Electronics, Bangalore, India, Summer 1976.
- Research Engineer, Indian Telephone Industries, Bangalore, India, Summer 1975.

Board Memberships

- Member, Scientific Advisory Board for Singapore National Research Foundation, 2009-2012.
- Member, Science and Technology Advisory Board for the Thai Prime Minister 2009-present
- Member, Board of Visitors, ECE Departments, CMU and Cornell, 2006-2008.
- Board of Trustees, International Computer Science Institute, Berkeley, October 2003-09, Chairman of the Board, 2004-09.
- Member, Army Research Laboratories and Army Research Office Review Board, 2002, 2005.

- Member, Committee of Visitors, National Science Foundation, Engineering, 2003.
- NSF Engineering Directorate, ECS Division, September 2002.
- Board of Advisors, Swedish Ministry of Defense, 2002-2003.
- Board of Directors, Berkeley Intel Lablet, July 2002-July 2003.
- Board Member, Federation of American Scientists, July 2002-July 2008.
- Board Member, CrossBow, Inc. 2007-2011.
- Board Member, C3 Carbon LLC, 2009-present
- Scientific Advisory Board Member, Interwest Partners, 2011-present
- Board Member, HCL Technologies, Inc., 2012-present

Professional Activities

Associate Editor of:

- Proceedings of the IEEE
- IMA Journal of Mathematical Control and Information
- International Journal of Adaptive and Optimal Control

Past Associate Editor of:

- Systems and Control Letters
- Journal of Mathematical Systems, Estimation and Control
- IEEE Transactions on Circuits and Systems
- IEEE Transactions on Automatic Control
- IEEE Control Magazine
- Large Scale Systems

Honors and Awards

- Chang Lin Tien Educational Leadership Award, 2010
- Ph. D. Honoris Causa, Royal Institute of Technology, Stockholm, 2007
- Ragazzini Award for distinguished career in Control education, American Control Council, 2005.
- American Academy of Arts and Sciences, 2004.
- Nippon Electronics Corporation (NEC) Distinguished Professorship in the College of Engineering and the Walter A. Haas School of Business, 2002.
- National Academy of Engineering, 2001.
- David Marr Best Paper Prize, International Conference in Computer Vision, 1999.
- Distinguished Alumnus Award, IIT Bombay, 1999.
- Fellow, IEEE, 1994.
- M.A. (Letters), honoris causa, Harvard University, 1994.
- Eckman Award of the American Control Council, 1990 for the best control engineer under the age of 35 awarded by IEEE, ASME, AIAA, AIChE, SPIE, Optical Society Of America.
- NSF Presidential Young Investigator Award, 1985.
- IBM Faculty Development Grant, 1983.
- IEEE Student Best Paper Award, 1977.

- President of India Gold Medal, 1977.

List of M.S. Students (terminal M.S., but no Ph.D.)

Name	Graduation Date	Current Location
James Krause (MIT)	1982	Honeywell, Minneapolis, MN
Lee Stone (Biophysics/EECS)	1983	NASA Ames, Ames, CA
Paul Homburger	1983	SRI, Palo Alto, CA
Mel Badgett	1984	Integrated Systems, Santa Clara, CA
Gary Demuth	1985	AFWAL, Albuquerque, NM
Curtis Elia	1986	Integrated Systems, Santa Clara, CA
Pietro Perona	1986	Caltech, Pasadena, CA
Paul Jacobs	1986	Qualcomm, San Diego, CA
Tim Hahn	1987	Bellcore, Holmdel, NJ
Shobana Venkatraman	1988	Teknekron Comm, Berkeley, CA
Christian Sallaberger	1989	University of Toronto, ON
Greg Heinzinger	1989	Qualcomm, San Diego, CA
Cesar Alvarez	1990	Microsoft, Seattle, WA
Karin Hollerbach (Bioengg)	1991	LBNL, Berkeley, CA
Shawn Wayen Hsu	2000	Unknown (but in Si Valley)
Shahid Rashid	2000	ERIDE, San Francisco, CA
Courtney Sherman Sharp	2000	Moteiv, Inc. Berkeley. CA
Nils Wemhoener (Mech E.)	2000	RWTH-AC, Aachen, Germany
Arnab Nilim (CE)	2001	Goldman Sachs, New York, NY
Mario Micheli	2001	Brown University, Providence, RI
Cedric Sek-Kong Ma	2002	Northrup Grumman, El Segundo, CA
Judy Liebman	2003	Lawrence Livermore Laboratories, CA
Adonis Antoniadis	2003	NICTA, Sydney, Australia
Jessica Pannequin	2007	NASA Ames, Mountain View, CA

List of Doctoral Students
If not in EECS, major is explicitly noted

Name	Graduation Date	Current Location
Jean Jacques Slotine (Aero)	1983	ME, M. I. T., Cambridge, MA
Ramon Silva	1984	Teknekron Comm → assorted companies in Venezuela
Stephen Boyd	1984	EE, Stanford University, Palo Alto, CA (joint with Chua and Desoer)
Brad Paden	1985	ME, UC Santa Barbara, CA
Marc Bodson	1986	ECE, CMU → ECE, University of Utah, UT
Efithimios Kappos	1986	Math, University of Thessaloniki, Greece
Li-Chen Fu	1987	EE&CS, National Taiwan University, Taiwan
Er-Wai Bai	1987	ECE, University of Iowa, Iowa City, IA
Andy Packard (ME)	1988	ME, UC Berkeley, CA
Jeff Mason (ME)	1988	IBM Rochester, MN
Ping Hsu	1988	ECE, San Jose State University, CA
Saman Behtash	1988	Assorted Start Ups
John Hauser	1989	ECE, University of Colorado, CO
Arlene Cole	1989	EE, Morgan State University, Baltimore, MD
Zexiang Li	1989	EE, Hong Kong Univ. of Sci and Tech, Hong Kong
Niklas Nordstrom	1990	EE, Royal Inst of Tech, Stockholm, Sweden
D.C. Deno (Bioengg)	1991	Intermedics, Houston, Texas (joint with Keller)
Richard Murray	1991	Mech E, EECS Caltech, Pasadena, CA
A. K. Pradeep (ME)	1992	Neurofocus, Berkeley, CA (sold to Reuters),
Andrew Teel	1992	ECE, University of California, Santa Barbara
Raja Kadiyala	1992	CH2M Hill, San Francisco, CA
Kris Pister	1992	EECS, UC Berkeley, CA (joint with Fearing)
Linda Bushnell	1994	ECE, University of Washington, WA
Gregory Walsh	1994	EE, University of Maryland, MD
Dawn Tilbury	1994	ME, University of Michigan, MI
Datta Godbole	1994	Honeywell Tech Center, MN
John Lygeros	1996	EE, ETH, Zurich

Steve Burgett	1996	Yasukawa Motors, San Francisco, CA
Antonia Lindsey	1997	Sun Microsystems, Menlo Park, CA
Charles Coleman	1997	Aero Astro, MIT. Cambridge, MA
Jeffrey Wendlandt (ME)	1997	Math Works, Worcester, MA
Lara Crawford (Biophysics)	1998	PARC, Palo Alto, CA
Claire Tomlin	1998	Aero./ EE, Stanford University and EECS University of California, Berkeley
George Pappas	1998	EE, University of Pennsylvania, Philadelphia, PA
Yi Ma	2000	ECE, Univ. of Illinois, Urbana, IL
Murat Cenk Cavusoglu	2000	EE and BioE, Case Western , Cleveland, OH
Tak Kuen John Koo	2000	ECE, Tsinghua and Shenzhen Universities, Shenzhen,
Hyunchul David Shim (ME)	2000	ME, Korean Advanced Institute for Science and Technology, KAIST, Seoul, Korea.
Hyoun Jin Kim (ME)	2001	Aero, Seoul National University, Seoul, Korea
Rene Vidal	2003	Biomed, CS, Johns Hopkins University, Baltimore, MD
Jianghai Hu	2003	ECE, Purdue University, West Lafayette, IN
Omid Shakernia	2003	Northrop Grumman, Los Angeles, CA
Luca Schenato	2003	ECE, Universita di Padova, Padova, Italy
Jun Zhang	2003	EE, Jiaotong University, Shanghai, China
Xinyan Deng (ME)	2004	ME, Purdue University, West Lafayette, IN
Bruno Sinopoli	2005	ECE, Carnegie Mellon University, Pittsburgh, PA
Hoam Chung (ME)	2005	ME, Melbourne University, Australia.
Wei Chung Wu	2006	Berkeley (health issues)
Aaron Ames	2006	ECE, Texas A&M University, College Station, TX
Shawn Schaffert	2006	Moteiv, Inc., Berkeley, CA
Songhwai Oh	2006	ECE, Seoul National University, Korea
Alessandro Abate	2007	Mech E, EE, Delft Institute of Technology, Holland
Tanya Roosta	2008	San Francisco Federal Reserve Bank
Parvez Ahammad	2008	Howard Hughes Medical Institute Janelia Farms, Virginia
Phoebus Chen	2008	Tarana Wireless, Berkeley, CA
Edgar Lobaton	2009	EE, University of North Carolina, Chapel Hill, NC
Marci Meingast	2009	Adobe Systems, San Francisco, CA

Todd Templeton	2009	Google, Pittsburgh, PA
Milos Drezgic	2010	University of California, Berkeley
Saurabh Amin (CEE)	2011	Civil, EECS, MIT (joint with Bayen)
Bonnie Zhu	2011	Looking for academic position
Humberto Gonzalez	2012	Systems Engg., Washington University (St. Louis)

List of Post Doctoral Scholars

Name	Year of Visit	Affiliation
Robyn Owens	1986	University of Western Australia
B. Zavidovique	1986	ETCA, Paris
Helene Chochon	1987	ECE Paris
A. Oliveira	1988	COPPE, Rio de Janeiro
I. Mazon	1990	LAAS, Toulouse, France
D. Luzeaux	1991	Ecole Polytechnique, U. Paris, FR.
J. Kosecka	1996-99	George Mason University, DC
C. Mason	1997	NASA Ames
S. Sekhavat	1997	INRIA-Rhone Alpes
F. Hoffmann	1997-99	University of Kiel, Germany
J. Hespanha	1998	University of California, Santa Barbara
M. Prandini	1998	Politecnico di Milano, Italy
K. Johansson	1998-2000	Royal Institute of Technology, Sweden
J. Lygeros	1998	ETH, Zurich
S. Simic (Math)	1999- 2004	San Jose State University, San Jose, CA
Ekaterina Lemch	2000	McGill University, Canada
John Takkeun Koo	2000-2003	Shenzen and Tsinghua University, China
Murat Cavusoglu	2000-2002	Case Western University, Cleveland
Hyoun Jin Kim	2001-2004	Seoul National University, Seoul, Korea
Ian Mitchell	2002-2003	University of British Columbia, Vancouver.
Christopher Geyer	2002-2005	I-Robot, Cambridge, MA

Massimo Franceschetti	2002-2004	University of California, San Diego, CA
Jonathan Sprinkle	2003-2007	Univ of Arizona, AZ
Michael Eklund	2003-2006	Ontario Institute of Technology, Canada
Bruno Sinopoli	2005-2006	CMU, Pittsburgh, PA
Hoam Chung	2006-2009	University of Melbourne
Allen Yang	2006-present	Berkeley (Research Scientist)
Vincent Duindam	2006-2008	Intuitive Surgical Inc. , Palo Alto
Alvaro Cardenas	2006-2009	University of Texas, Dallas, TX
Annarita Gianni	2007-2010	Sandia National Labs
Songhwai Oh	2006-2007	Seoul National University, Korea
Galina Schwartz	2010-present	Berkeley (Research Scientist)
Dheeraj Singaraju	2010-2012	Google Research, Mountain View
Henrik Ohlsson	2011-present	Berkeley

Books Published

Shankar Sastry has co-authored 4 textbooks. They are

1. “*An Invitation to 3D Vision: From Images to Models*” co-authored with Y. Ma, S. Soatto, and J. Kosecka, published by Springer Verlag in November 2003,
2. *Nonlinear Systems: Analysis, Stability and Control* published by Springer-Verlag in 1999,
3. *A Mathematical Introduction to Robotic Manipulation* (with R. Murray and Z. Li, CRC Press, 1994), and
4. *Adaptive Control: Stability, Convergence and Robustness* (with M. Bodson, Prentice Hall, 1989, now out of print but available for free download at <http://www.ece.utah.edu/~bodson/acscr/index.html>),

He has co-edited 5 other books *Hybrid Control II*, *Hybrid Control IV* and *Hybrid Control V* (with P. Antsaklis, A. Nerode, and W. Kohn, Springer Lecture Notes in Computer Science, LNCS, 1995, 1997, and 1999, respectively) and co edited *Hybrid Systems: Computation and Control* (with T. Henzinger, Springer-Verlag Lecture Notes in Computer Science, 1998) and *Essays in Mathematical Robotics* (with Baillieul and Sussmann, Springer-Verlag IMA Series), 1999.

He has two textbooks in progress “Generalized Principal Component Analysis” with R. Vidal and Yi Ma, and “Hybrid Control Systems” with J. Lygeros and C. Tomlin, both under contract with Springer Verlag.

List of Publications

1. Henrik Ohlsson, Allen Y. Yang, Roy Dong and S. Shankar Sastry. “Compressive Phase Retrieval From Squared Output Measurements Via Semi-definite Programming”, 16th IFAC Symposium on System Identification, SYSID 2012.
2. Sam Burden, Henrik Ohlsson and S. Shankar Sastry. “Parameter Identification Near Periodic Orbits of Hybrid Dynamical Systems”. 16th IFAC Symposium on System Identification, SYSID 2012.
3. Henrik Ohlsson, Tianshi Chen, Sina Khoshfetrat Pakazad, Lennart Ljung, Shankar Sastry. Distributed Change Detection. 16th IFAC Symposium on System Identification, SYSID 2012.
4. Henrik Ohlsson, Yonina C. Eldar, Allen Y. Yang and S. Shankar Sastry. Compressive Shift Retrieval, International Conference on Acoustics, Speech and Signal Processing, ICASSP 2012.
5. Henrik Ohlsson, Allen Yang, Roy Dong and S. Shankar Sastry. CPRL -- An Extension of Compressive Sensing to the Phase Retrieval Problem, Advances in Neural Information Processing Systems 25 1376—1384 2012
6. Henrik Ohlsson, Allen Yang, Roy Dong and S. Shankar Sastry. Compressive Phase Retrieval via Lifting, Proceedings of the Snowbird Workshop on Machine Learning, 2012.
7. Dheeraj Singaraju, Roberto Tron, Ehsan Elhamifar, Allen Yang, and Shankar Sastry. On the Lagrangian biduality of sparsity minimization problems. International Conference on Acoustics, Speech and Signal Processing, ICASSP, 2012.
8. Alvaro A. Cárdenas, Saurabh Amin, Galina Schwartz, Roy Dong, Shankar Sastry. A Game Theory Model for Electricity Theft Detection and Privacy-Aware Control in AMI Systems. 2012 50th Annual Allerton Conference on Communication, Control, and Computing (Allerton). October 1-5, 2012 8 pages.
9. Lillian Ratliff, Samuel Coogan, Daniel Calderone, S. Shankar Sastry. Pricing in Linear-Quadratic Dynamic Games. 50th Annual Allerton Conference on Communication, Control, and Computing, 2012.
10. Nikhil Naikal, Dheeraj Singaraju, Shankar Sastry. Using Models of Objects with Deformable Parts for Joint Categorization and Segmentation of Objects. Proceedings of the Asian Conference on Computer Vision (ACCV) 2012, Part II, Lecture Notes in Computer Science, Springer Verlag, LNCS Vol. 7725.
11. G. Schwartz, H. Tembine, S. Amin, and S. Sastry, Electricity demand response via randomized rewards, in Proceedings of the 50th Annual Allerton Conference on Communication, Control, and Computing, IEEE. Monticello, IL: IEEE Press, Oct. 2012.

12. Dheeraj Singaraju, Roberto Tron, Ehsan Elhamifar, Allen Y. Yang and S. Shankar Sastry. On the Lagrangian Biduality of Sparsity Minimization Problems. Proceedings of the 2011 International Conference on Acoustics, Speech and Signal Processing (ICASSP)
13. Samuel Burden, Humberto Gonzalez, Ram Vasudevan, Ruzena Bajcsy and S. Shankar Sastry. Numerical Integration of Hybrid Dynamical Systems via Domain Relaxation. Proceedings of the 50th IEEE Conference on Decision and Control, 2011
14. Samuel Burden, Shai Revzen and S. Shankar Sastry. Dimension Reduction Near Periodic Orbits of Hybrid Systems. Proceedings of the 50th IEEE Conference on Decision and Control, 2011.
15. Phoebus Chen, Kirak Hong, Nikhil Naikal, S. Shankar Sastry, Doug Tygar, Posu Yan, Allen Y. Yang. A Low-Bandwidth Camera Sensor Platform with Applications in Smart Camera Networks. ACM Transactions on Sensor Networks (TOSN), 2011.
16. Hossein Mobahi, Shankar Rao, Allen Yang, Shankar Sastry, and Yi Ma. Segmentation of Natural Images by Texture and Boundary Compression. *International Journal of Computer Vision (IJCV)*, 2011.
17. P. Loiseau, G. A. Schwartz, J. Musacchio, S. Amin, and S. S. Sastry, Congestion pricing using a raffle-based scheme, International Conference on Network Games, Control and Optimization (NetGCooP), 2011, IEEE, 2011, pp. 1–8.
18. G. A. Schwartz, S. Amin, and S. S. Sastry, On the interdependence of reliability and security in networked control systems, Proceedings of the IEEE Conference on Decision and Control, 2011, pp. 4078 – 4083.
19. M. Andreasson, S. Amin, G. A. Schwartz, K. H. Johansson, H. Sandberg, and S.S. Sastry, Correlated failures of power systems: Analysis of the Nordic grid, Workshop on Foundations of Dependable and Secure Cyber-Physical Systems (FDSCPS), CPSWeek 2011, Chicago, Il, 2011, pp. 9–17.
20. Hoover, S. Burden, X. Fu, S. Sastry, and R. Fearing. Bio-inspired design and dynamic maneuverability of a minimally actuated six-legged robot. In IEEE International Conference on Biomedical Robotics and Biomechanics, 2010.
21. H. Gonzalez, R. Vasudevan, M. Kamgarpour, S. Sastry, R. Bajcsy, and C. Tomlin. "A Descent Algorithm for the Optimal Control of Constrained Switched Nonlinear Dynamical Systems". Proceedings of the 13th International Conference on Hybrid Systems: Computation and Control (HSCC'10). April 12-16, 2010.
22. H. Gonzalez, R. Vasudevan, M. Kamgarpour, S. Sastry, R. Bajcsy, and C. Tomlin. "A Numerical Methods for the optimal control of Switched Systems". Proceedings of the 49th IEEE Conference on Decision and Control (CDC 2010). December 14-17, 2010.
23. Shankar Rao, Allen Yang, Shankar Sastry, and Yi Ma, Robust Algebraic Segmentation of Mixed Rigid-Body and Planar Motions. International Journal of Computer Vision (IJCV), 2010.
24. Allen Yang, Michael Gastpar, Ruzena Bajcsy, and Shankar Sastry. Distributed Sensor Perception via Sparse Representation. Proceedings of the IEEE, Vol. 98. No.6, pp. 1077-1088, June 2010.

25. Allen Yang, Zihan Zhou, Yi Ma, and Shankar Sastry. Towards a Robust Face Recognition System using Compressive Sensing. InterSpeech, 2010.
26. Allen Yang, Arvind Ganesh, Yi Ma, and Shankar Sastry. Fast ℓ_1 -minimization algorithms and an application in robust face recognition: A review. International Conference on Image Processing (ICIP), 2010.
27. Nikhil Naikal, Allen Yang, and Shankar Sastry. Towards an efficient distributed object recognition system in wireless smart camera networks. IEEE Information Fusion, 2010. (Best Student Paper Award, Honorable Mention)
28. B. Godbehere, S. S. Sastry. "Stabilization of planar switched linear systems using polar coordinates." Proceedings of the 13th ACM international conference on Hybrid Systems: Computation and Control, Stockholm, Sweden, 2010.
29. Hoam Chung, Elijah Polak, and S. Shankar Sastry, "On the Use of Outer Approximations as an External Active Set Strategy," Journal of Optimization Theory and Application, 146(1):51-75, 2010.
30. P. J. From, V. Duindam, K. Y. Pettersen, J. T. Gravdahl, S. Sastry "Singularity-free dynamic equations of vehicle-manipulator systems" Simulation Modelling Practice and Theory 18(6) pp. 712-731, June 2010.
31. V. Duindam, J. Xu, R. Alterovitz, S. Sastry, K. Goldberg, "3D Motion Planning Algorithms for Steerable Needles Using Inverse Kinematics" International Journal of Robotics Research 29(7) pp. 789 -- 800, June 2010.
32. Saurabh Amin, Alvaro Cardenas, S. Shankar Sastry," Safe and Secure Networked Control Systems Under Denial-of-Service Attacks."Hybrid Systems: Computation and Control, Lecture Notes in Computer Science. Springer Berlin / Heidelberg, 31-45, 30, April, 2009
33. Alvaro Cardenas, Tanya Roosta, S. Shankar Sastry, Rethinking Security Properties, Threat Models and the Design Space in Sensor Networks : A case study in SCADA systems, Ad Hoc Networks, in publication, May, 2009
34. Hoam Chung, Elijah Polak, and S. Shankar Sastry, "An External Active-Set Strategy for Solving Optimal Control Problems," IEEE Transactions on Automatic Control, Vol.54, No.5, pp1129 - 1133, 2009.
35. Milosh Drezgic, Andrew P. Hines, Mohan Sarovar, Shankar Sastry, "Complete characterization of mixing time for the continuous quantum walk on the hypercube with Markovian decoherence model" Quantum Information and Computation, Vol. 9, No. 9&10 (2009) 0856-0878
36. P. J. From, V. Duindam, J. T. Gravdahl, S. Sastry, "Modeling and Motion Planning for Mechanisms on a Non-Inertial Base" Proceedings of the IEEE International Conference on Robotics and Automation (ICRA), May 2009.
37. Kirak Hong, Posu Yan, Phoebus Chen, Songhwai Oh, and Shankar Sastry, "Multihop routing in camera sensor networks - an experimental study (poster)" in Proceedings of the Eighth International Conference on Information Processing in Sensor Networks (IPSN), April 2009.
38. YuLun Huang, Alvaro Cardenas, Saurabh Amin, Song-Zyun Lin , Hsin-Yi Tsai, S. Shankar Sastry Understanding the Physical and Economic Consequences of Attacks Against Control Systems, International Journal of Critical Infrastructure Protection, in publication, 2009

39. E.J. Lobaton, P. Ahammad, and S.S. Sastry, "Algebraic Approach for Recovering Topology in Distributed Camera Networks," ACM/IEEE International Conference on Information Processing in Sensor Networks (IPSN 2009), San Francisco, CA, April, 2009.
40. E J Lobaton, R Vasudevan, S S Sastry, R Bajcsy, "Robust Construction of the Camera Network Complex for Topology Recovery" International Conference on Distributed Smart Cameras (ICDSC), Como, Italy; 2009
41. Songhwai Oh, Stuart Russell, and Shankar Sastry, "Markov chain Monte Carlo data association for multi-target tracking," IEEE Transactions on Automatic Control, vol. 54, no. 3, pp 481-497, Mar. 2009.
42. J. Sprinkle, J. M. Eklund, H. Gonzalez, E. I. Grøtli, B. Upcroft, A. Makarenko, W. Uther, M. Moser, R. Fitch, H. Durrant-Whyte and S. S. Sastry. Model-based design: a report from the trenches of the DARPA Urban Challenge. Software and Systems Modeling, 2009.
43. Eric Guenterberg, Allen Yang, Roozbeh Jafari, Ruzena Bajcsy, and Shankar Sastry. A Method for Extracting Temporal Parameters Based on Hidden Markov Models in Body Sensor Networks With Inertial Sensors. IEEE Transactions on Information Technology in BioMedicine, 2009.
44. Allen Yang, Roozbeh Jafari, Shankar Sastry, and Ruzena Bajcsy. Distributed Recognition of Human Actions Using Wearable Motion Sensor Networks. Journal of Ambient Intelligence and Sensor Environments (JAISE), 2009.
45. John Wright, Allen Yang, Arvind Ganesh, Shankar Sastry, and Yi Ma. Robust face recognition via sparse representation. IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), Feb, 2009.
46. Shankar Rao, Hossein Mobahi, Allen Yang, Shankar Sastry, and Yi Ma. Natural Image Segmentation with Adaptive Texture and Boundary Encoding. Asian Conference on Computer Vision (ACCV), 2009.
47. Allen Yang, Subhransu Maji, Mario Christoudas, Trevor Darrell, Jitendra Malik, and Shankar Sastry. Multiple-view object recognition in band-limited distributed camera networks. International Conference on Distributed Smart Cameras (ICDSC), 2009.
48. Allen Yang, Subhransu Maji, Kirak Hong, Posu Yan, and Shankar Sastry. Distributed compression and fusion of nonnegative sparse signals for multiple-view object recognition. International Conference on Information Fusion, 2009.
49. Philip Kuryloski, Annarita Giani, Roberta Giannantonio, Katherine Gilani, Ville-Pekka Seppa, Edmund Seto, Raffaele Gravina, Victor Shia, Curtis Wang, Posu Yan, Allen Yang, Jari Hyttinen, Shankar Sastry, Stephen Wicker, and Ruzena Bajcsy. DexterNet: An open platform for heterogeneous body sensor networks and its applications. Body Sensor Networks (BSN) Workshop, 2009.
50. Giani, S. Sastry, K. H. Johansson, and H. Sandberg, The VIKING project: an initiative on resilient control of power networks, IEEE International Symposium on Resilient Control Systems, Idaho Falls, ID, USA, 2009.
51. Abate, Lygeros, J. & Sastry, S. Probabilistic Safety and Optimal Control for Survival Analysis of Bacillus Subtilis, Systems and Control Letters, December 19, 2009.
52. Abate, A., Tiwari, A. & Sastry, S., Box Invariance in biologically-inspired dynamical systems, Automatica Vol. 45(7) , pp. 1601-1610, 2009.

53. Abate, D'Innocenzo, A., Di Benedetto, M. & Sastry, S. Understanding Deadlock and Livelock Behaviors in Hybrid Control Systems, *Nonlinear Analysis: Hybrid Systems*, Vol. 3(2) , pp. 150-162, 2009.
54. Abate, M. Prandini, J. Lygeros, and S. Sastry. "Probabilistic Reachability and Safety for Controlled Discrete Time Stochastic Hybrid Systems" , *Automatica*, Vol. 44. no.11, pp.2724-2734, 2008.
55. Abate, A. D'Innocenzo, M.D. Di Benedetto, and S. Sastry. "Markov Set-Chains as abstractions of Stochastic Hybrid Systems". *Proceedings of the Workshop on Hybrid Systems: Computation and Control*, 2008.
56. Abate, M. Prandini, J. Lygeros, and S. Sastry. "Approximation of General Stochastic Hybrid Systems by Switching Diffusions with Random Hybrid Jumps." *Proceedings of the workshop on Hybrid Systems: Computation and Control*, 2008
57. Allen Yang, John Wright, Yi Ma, and Shankar Sastry. "Unsupervised Segmentation of Natural Images via Lossy Data Compression". *Computer Vision and Image Understanding (CVIU)*, 2008.
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