

ANAK AGUNG JULIUS

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Department of Electrical, Computer and Systems Engineering
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EDUCATION

Doctor in Applied Mathematics,

Universiteit Twente, Enschede, The Netherlands February 2005
Thesis: *On interconnection and equivalence of continuous and discrete systems: a behavioral perspective*
Advisor: Arjan van der Schaft
Committee: Arun Bagchi, Arjan van der Schaft, Ed Brinksma, Hans Schumacher, Jan Willems, George Pappas, Jan Willem Polderman, Rom Langerak.

Master of Science in Applied Mathematics (with distinction),

Universiteit Twente, Enschede, The Netherlands June 2001
Thesis: *Evolution of the modal densities of a class of stochastic hybrid systems*
Advisor: Arjan van der Schaft, Henk Blom (NLR), Bert Bakker (NLR)

Bachelor of Engineering in Electrical Engineering (cum laude),

Institut Teknologi Bandung, Bandung, Indonesia October 1998
Thesis: *Visual based control of a robotic arm* (written in Indonesian)
Advisor: Bambang Riyanto

PROFESSIONAL AND RESEARCH EXPERIENCE

Rensselaer Polytechnic Institute

Dept. Electrical, Computer and Systems Engineering, Troy, NY, USA December 2008 - date
(Assistant Professor)

University of Pennsylvania

Dept. Electrical and Systems Engineering, Philadelphia, USA June 2005 - December 2008
(Postdoctoral researcher)
My line of research includes systems biology, mathematical models in systems biology, control of biological systems, hybrid systems, reduction of complex systems, verification and robust testing of hybrid systems.
Mentor: George J. Pappas

University of Twente

Dept. Applied Mathematics, Enschede, The Netherlands December 2000 - March 2005
(Doctoral student)

The Netherlands National Aerospace Lab.

Air traffic management section, Amsterdam, The Netherlands December 2000 - June 2001
(Student researcher)
Engaged in research on analysis of density functions of stochastic hybrid systems. The result of the research was reported as my MSc thesis.

Swiss Federal Lab for Materials Science and Technology

Acoustic Department, Dubendorf, Switzerland June - August 2000
(Summer intern)
Worked on a joint project between Automatic Control Lab. of ETH Zurich and Acoustic Dept. of EMPA Dubendorf. The project was about the control of sound transmission through a double panel system. I was involved in the modeling and model validation of the plant.

AWARDS AND FELLOWSHIPS

NSF CAREER award (Computer Systems Research Program)	2010 - 2015
NWO (Dutch National Science Organization) funding for my doctoral study	2000 - 2004
Summer Research Fellowship Swiss Federal Lab for Materials Science and Technology (EMPA)	Summer 2000
VNO - NCW fellowship from NLR (The Netherlands National Aerospace Lab)	1999 - 2001
Nominated as Best Student of Electrical Engineering Dept, ITB	1998
Top ten graduates of Electrical Engineering Dept, ITB	October 1998

FUNDED ACTIVITIES

CSR:Small: Human-Centered Synthesis of Provably Correct Controllers for Hybrid Systems PI: A.A. Julius Sponsor: NSF (Computer Systems Research Program - CISE)	2012 - 2014
Microbiorobots for Manipulation and Sensing PI: M.J. Kim (Drexel Univ) Sponsor: Army Research Office	2011 - 2014
Collaborative Research: The Dynamics of the Innate Immune Systems: A Study of the Toll-like Receptors (TLR) Network PI: A.A. Julius Sponsor: NSF (Theoretical Biology Program - BIO)	2011 - 2013
Collaborative Research: Motion Control of Bacteria-Powered Microrobots PI: A.A. Julius Sponsor: NSF (Control Systems Program - ENG)	2010 - 2013
CAREER: Robust Trajectory Based Analysis for Stochastic Hybrid Systems Abstraction and Verification PI: A.A. Julius Sponsor: NSF (Computer Systems Research Program - CISE)	2010 - 2015
Course Development Grant for Systems and Synthetic Biology Grantees: A.A. Julius and C.H. Collins Sponsor: Rensselaer's Office of Entrepreneurship	Spring 2010

TEACHING EXPERIENCE

Rensselaer Polytechnic Institute Dept. Electrical, Computer, and Systems Engineering, Troy, NY, USA Co-teaching and designing a course on Synthetic Biology (ECSE 4961/6964).	Fall 2012
Rensselaer Polytechnic Institute Dept. Electrical, Computer, and Systems Engineering, Troy, NY, USA Teaching graduate level course on Systems Analysis Techniques (ECSE6400).	Fall 2011
Rensselaer Polytechnic Institute Dept. Electrical, Computer, and Systems Engineering, Troy, NY, USA Teaching undergraduate course on Digital Control Systems (ECSE4510).	Spring 2011
Rensselaer Polytechnic Institute	Fall 2010

Dept. Electrical, Computer, and Systems Engineering, Troy, NY, USA
Teaching graduate level courses on Systems Analysis Techniques (ECSE6400) and Nonlinear Control Systems (ECSE6420).

Rensselaer Polytechnic Institute Spring 2010

Dept. Electrical, Computer, and Systems Engineering, Troy, NY, USA
Co-teaching and designing a course on Systems and Synthetic Biology (ECSE4/6965).

Rensselaer Polytechnic Institute Fall 2009

Dept. Electrical, Computer, and Systems Engineering, Troy, NY, USA
Teaching a graduate level course on Multivariable Control Systems (ECSE6460).

Rensselaer Polytechnic Institute Spring 2009

Dept. Electrical, Computer, and Systems Engineering, Troy, NY, USA
Teaching a graduate level course on Nonlinear Control Systems (ECSE6420).

University of Pennsylvania Spring 2008

Dept. Electrical and Systems Engineering, Philadelphia, PA, USA
Teaching a graduate level course on Nonlinear Control Systems (ESE617).

University of Pennsylvania Spring 2007

Dept. Electrical and Systems Engineering, Philadelphia, PA, USA
Co-teaching and designing a graduate level course on Systems Biology (ESE680-003).

University of Pennsylvania Fall 2006

Dept. Electrical and Systems Engineering, Philadelphia, PA, USA
Alternative instructor for a graduate level course on Nonlinear Control Systems (ESE617).

University of Pennsylvania Spring 2006

Dept. Electrical and Systems Engineering, Philadelphia, PA, USA
Designing and teaching a graduate level course on Hybrid Systems (ESE601).

PUBLICATIONS

Theses

1. A.A. Julius, *On interconnection and equivalence of continuous and discrete systems: a behavioral perspective*, Doctoral dissertation, Dept. Applied Mathematics, University of Twente, The Netherlands, 2005.
2. A.A. Julius, *Evolution of the modal densities of a class of stochastic hybrid systems*, Master thesis, Dept. Applied Mathematics, University of Twente, The Netherlands, 2001.

Journal papers and book chapters

1. Y. Ou, D.H. Kim, P. Kim, M.J. Kim and A.A. Julius, *Motion control of magnetized Tetrahymena pyriformis cells by a magnetic field with Model Predictive Control*, *International Journal of Robotics Research*, Vol. 32(1), pp. 129 - 139, 2013.
2. G. Richard, C. Belta, A.A. Julius, S. Amar, *Controlling the outcome of the Toll-like signaling pathways*, *PLoS ONE*, Vol. 7(2), e31341, 2012.
3. D.H. Kim, P.S. Kim, A.A. Julius, M.J. Kim, *Three-dimensional control of Tetrahymena pyriformis using artificial magnetotaxis*, *Applied Physics Letters*, Vol. 100, 053702, 2012.
4. T.J. Zhang, J.T. Wen, A.A. Julius, Y. Peles, M.K. Jensen, *Stability analysis and maldistribution control of two-phase flow in parallel evaporating channels*, *International Journal of Heat and Mass Transfer*, Vol. 54, pp. 5298-5305, 2011.
5. M.S. Sakar, E.B. Steager, D.H. Kim, A.A. Julius, M.J. Kim, V. Kumar, G.J. Pappas, *Modeling, control and experimental characterization of microbiorobots*, *International Journal of Robotics Research*, Vol. 30(6), pp. 647-658, 2011.

6. M.M. Zavlanos, A.A. Julius, S.P. Boyd and G.J. Pappas, [Inferring stable genetic networks from steady-state data](#), *Automatica*, vol. 47(6), pp. 1113-1122, Special Issue on Systems Biology, 2011.
7. A.A. Julius, M.M. Zavlanos, S.P. Boyd, G.J. Pappas, [Genetic network identification using convex programming](#), *IET Systems Biology*, vol. 5(3), pp. 155-166, 2009.
8. A.A. Julius, G.J. Pappas, [Approximate abstraction of stochastic hybrid systems](#), *IEEE Trans. Automatic Control*, vol.54(6), pp. 1193-1203, 2009.
9. A.A. Julius, G.J. Pappas, [Trajectory based verification using local finite-time invariance](#), in *Hybrid Systems: Computation and Control*, Lecture Notes in Computer Science vol. 5469, pp. 223-236, Springer Verlag, 2009.
10. A.A. Julius, A. D’Innocenzo, M.D. DiBenedetto, G.J. Pappas, [Approximate equivalence and synchronization of metric transition systems](#), *Systems and Control Letters*, vol.58(2), pp. 94-101, 2009.
11. P. Tabuada, A.D. Ames, A.A. Julius, G.J. Pappas, [Approximate reduction of dynamical systems](#), in *Systems and Control Letters*, vol.57(7), pp. 538-545, July 2008
12. A.A. Julius, A. Halasz, M.S. Sakar, H. Rubin, V. Kumar, G.J. Pappas, [Stochastic modeling and control of biological systems: the lactose regulation system of *Escherichia coli*](#), *IEEE Trans. Automatic Control*, 53(1), pp. 51-65, joint special issue with *IEEE Trans. Circuits and Systems*, 2008.
13. A.A. Julius, J.W. Polderman, A.J. van der Schaft, [Parametrization of the regular equivalences of the canonical controller](#), *IEEE Trans. Automatic Control*, vol.53(4), pp. 1032 - 1036, 2008.
14. A. Girard, A.A. Julius, G.J. Pappas, [Approximate simulation relations for hybrid systems](#), in *Int. J. Discrete Event Dynamic Systems*, vol.18(2), pp. 163-179, June 2008.
15. A.A. Julius, G. Fainekos, M. Anand, I. Lee, G.J. Pappas, [Model-based Robust Test Generation and Coverage for Hybrid Systems](#), in *Hybrid Systems: Computation and Control*, Lecture Notes in Computer Science vol. 4416, pp. 329-342, Springer Verlag, 2007.
16. A.A. Julius, [Approximate abstraction of stochastic hybrid automata](#), in *Hybrid Systems: Computation and Control*, Lecture Notes in Computer Science vol. 3927, pp. 318-332, Springer Verlag, 2006.
17. A.A. Julius, J.C. Willems, M.N. Belur, H.L. Trentelman, [The canonical controllers and regular interconnection](#), in *Systems and Control Letters*, 8(54), pp 787-797, August 2005.

Edited Volume

1. M.J. Kim, A.A. Julius, E.A. Steager (eds), *Microbiorobotics*, Elsevier, 2012.

Conference abstract and poster

1. A.A. Julius, C. Belta, Genetic regulatory network identification using monotone functions, at the *5th Q-bio Conference*, Santa Fe, USA, 2011.
2. A.A. Julius, The motile behavior of flagellated bacteria and its utilization in microscale actuation, at the SIAM Life Science Meeting, Pittsburgh, USA, 2010.
3. A.A. Julius, M. Zavlanos, S. Boyd, G.J. Pappas, Genetic network identification using convex programming, at the *8th International Conference on Systems Biology*, Long Beach, USA, 2007.
4. M.S. Sakar, E. Steager, A.A. Julius, V. Kumar, M.J. Kim, G.J. Pappas, Microfabricated structures powered by flagellated bacteria, at the *8th International Conference on Systems Biology*, Long Beach, USA, 2007.
5. A.A. Julius, A. Halasz, V. Kumar, G.J. Pappas, A finite model for the random behavior in the lactose regulation system of *Escherichia coli*, at the *7th International Conference on Systems Biology*, Yokohama, Japan, 2006.

Peer reviewed conference papers

1. A.A. Julius, A.K. Winn, [Safety controller synthesis using human generated trajectories: nonlinear dynamics with feedback linearization and differential flatness](#), in the *Proc. American Control Conference*, Montreal, Canada, 2012.
2. Y. Ou, D.H. Kim, P.S. Kim, M.J. Kim, A.A. Julius, [Motion control of *Tetrahymena pyriformis* cells with artificial magnetotaxis: Model Predictive Control \(MPC\) approach](#), in the *Proc. IEEE Intl. Conf. Robotics and Automation*, pp. 2492 - 2497, St. Paul, USA, 2012.

3. D.H. Kim, P.S. Kim, A.A. Julius, M.J. Kim, **Three-dimensional control of engineered motile cellular microrobots**, in the *Proc. IEEE Intl. Conf. Robotics and Automation*, pp. 721 - 726, St. Paul, USA, 2012.
4. G. Richard, H.J. Chang, I. Cizelj, C. Belta, A.A. Julius, S. Amar, **Integration of large-scale metabolic, signaling, and gene regulatory networks with application to infection responses**, in the *Proc. IEEE Conf. Decision and Control*, pp. 2227 - 2232, Orlando, USA, 2011.
5. N.G. Cooper, C. Belta, A.A. Julius, **Genetic regulatory network identification using multivariate monotone functions**, in the *Proc. IEEE Conf. Decision and Control*, pp. 2208 - 2213, Orlando, USA, 2011.
6. A.A. Julius, C. Belta, Genetic regulatory network identification using monotone functions decomposition, in the *Proc. IFAC World Congress*, Milan, Italy, 2011.
7. H. Chang, G. Richard, A.A. Julius, C. Belta, S. Amar, **An application of monotone functions decomposition for reconstruction of gene regulatory network**, in the *Proc. 33rd Annual IEEE Engineering in Medicine and Biology Conf. (EMBC)*, pp. 2430 - 2433, Boston, USA, 2011.
8. N.G. Cooper, A.A. Julius, **Bacterial persistence: mathematical modeling and optimal treatment strategy**, in the *Proc. American Control Conference*, pp. 3502 - 3507, San Francisco, USA, 2011.
9. M.M. Zavlanos, A.A. Julius, **Robust flux balance analysis of metabolic networks**, in the *Proc. American Control Conference*, pp. 2915 - 2920, San Francisco, USA, 2011.
10. J.X. Zhang, J.T. Wen, A.A. Julius, **Modeling of drosophila circadian system based on locomotor activity**, in the *Proc. American Control Conference*, pp. 3496 - 3501, San Francisco, USA, 2011.
11. D.H. Kim, S. Brigandi, A.A. Julius, M.J. Kim, **Real-time feedback control using artificial magnetotaxis with rapidly-exploring random tree (RRT) for *Tetrahymena pyriformis* as a microbiorobot**, in the *Proc. IEEE Intl. Conf. Robotics and Automation*, pp. 3183 - 3188, Shanghai, China, 2011.
12. A.A. Julius, S. Afshari, **Using computer games for hybrid systems controller synthesis**, in the *Proc. IEEE Conf. Decision and Control*, pp. 5887-5892, Atlanta, USA, 2010.
13. J.X. Zhang, A. Bierman, J.T. Wen, A.A. Julius, M. Figueiro, **Circadian system modeling and phase control**, in the *Proc. IEEE Conf. Decision and Control*, pp. 6058 - 6063, Atlanta, USA, 2010.
14. T.J. Zhang, J.T. Wen, A.A. Julius, **Extremum seeking Micro-Thermal-Fluid control for active two-phase microelectronics cooling**, in the *Proc. IEEE Conf. Decision and Control*, pp. 1899 - 1904, Atlanta, USA, 2010.
15. A.A. Julius, **Trajectory-based controller design for hybrid systems with affine continuous dynamics**, in the *Proc. 6th IEEE Conf. Automation Science and Engineering*, pp. 1007 - 1012, Toronto, Canada, 2010.
16. A.A. Julius, S. Sawyer, **Control systems challenges in energy efficient portable UV-based water sterilizer**, in the *Proc. American Control Conference*, pp. 3617 - 3622, Baltimore, USA, 2010.
17. T.J. Zhang, J.T. Wen, A.A. Julius, H. Bai, Y. Peles, M.K. Jensen, **Parallel-channel flow instabilities and active control schemes in two-phase microchannel heat exchanger systems**, in the *Proc. American Control Conference*, pp. 3753 - 3758, Baltimore, USA, 2010.
18. M.S. Sakar, E. Steager, A.A. Julius, M.J. Kim, V. Kumar, G.J. Pappas, **Biosensing and actuation for microrobots**, *Proc. IEEE Intl. Conf. Robotics and Automation*, pp. 3141-3146, Anchorage, Alaska, 2010.
19. A.A. Julius, M.S. Sakar, E. Steager, M.J. Kim, V. Kumar, G.J. Pappas, **Harnessing bacterial power for micromanipulation and transport**, in the *Proc. IEEE Intl. Conf. Robotics and Automation*, pp. 1004 - 1009, Kobe, Japan, 2009.
20. A.A. Julius, G.J. Pappas, **Probabilistic testing for stochastic hybrid systems**, in the *Proc. IEEE Conf. Decision and Control*, pp. 4030 - 4035, Cancun, Mexico, 2008.
21. A.A. Julius, M. Imielinski, G.J. Pappas, **Analysis of metabolic networks using convex programming**, in the *Proc. IEEE Conf. Decision and Control*, pp. 762 - 767, Cancun, Mexico, 2008.
22. M.M. Zavlanos, A.A. Julius, S.P. Boyd and G.J. Pappas, **Identification of stable genetic networks using convex programming**, in the *Proc. American Control Conference*, pp. 2755 - 2760, Seattle, USA, 2008.
23. A.A. Julius, M.S. Sakar, A. Bemporad, G.J. Pappas, **Hybrid model predictive control of induction of *Escherichia coli***, in the *Proc. IEEE Conf. Decision and Control*, pp. 3913 - 3918, New Orleans, USA, 2007.

24. A. D’Innocenzo, A.A. Julius, G.J. Pappas, M.D. Di Benedetto, S. Di Gennaro, **Verification of temporal properties on hybrid automata by simulation relations**, in the *Proc. IEEE Conf. Decision and Control*, pp. 4039 - 4044, New Orleans, USA, 2007.
25. A. D’Innocenzo, A.A. Julius, M.D. Di Benedetto, G.J. Pappas, **Approximate timed abstractions of hybrid automata**, in the *Proc. IEEE Conf. Decision and Control*, pp. 4045-4050, New Orleans, USA, 2007.
26. A.A. Julius, A. Halasz, V. Kumar, G.J. Pappas, **Controlling biological systems: the lactose regulation system of *Escherichia coli***, in the *Proc. American Control Conference*, pp. 1305 - 1310, New York, USA, 2007.
27. A.A. Julius, A. Halasz, V. Kumar, G.J. Pappas, **Finite state abstraction of a stochastic model of the lactose regulation system of *Escherichia coli***, in the *Proc. IEEE Conf. Decision and Control*, pp. 19 - 24, San Diego, USA, 2006.
28. A.A. Julius, G.J. Pappas, **Approximate equivalence and approximate synchronization of metric transition systems**, in the *Proc. IEEE Conf. Decision and Control*, San Diego, USA, 2006.
29. P. Tabuada, A. Ames, A.A. Julius, G.J. Pappas, **Approximate reduction of dynamical systems**, in the *Proc. IEEE Conf. Decision and Control*, San Diego, USA, 2006.
30. A. Girard, A.A. Julius, G.J. Pappas, **Approximate simulation relations for hybrid systems**, in the *Proc. IFAC Conf. Analysis and Design of Hybrid Systems*, Alghero, Italy, 2006.
31. A.A. Julius, A. Girard, G.J. Pappas, **Approximate bisimulation for a class of stochastic hybrid systems**, in the *Proc. American Control Conference*, Minneapolis, USA, 2006.
32. S.Strubbe, A.J. van der Schaft, A.A. Julius, **Value passing for communicating piecewise deterministic Markov processes**, in the *Proc. American Control Conference*, Minneapolis, USA, 2006.
33. A.A. Julius, M.N. Belur, **Behavioral control in the presence of disturbances**, in the *Proc. IEEE Conf. Decision and Control*, pp. 155 - 160, Seville, Spain, 2005.
34. A.A. Julius, A.J. van der Schaft, **Bisimulation as congruence in the behavioral setting**, in the *Proc. IEEE Conf. Decision and Control*, pp. 814 - 819, Seville, Spain, 2005.
35. A.A. Julius, J.W. Polderman, A.J. van der Schaft, **Controller with minimal interaction**, in the *Proc. IFAC World Congress*, Prague, Czech Republic, 2005.
36. A.A. Julius, A.J. van der Schaft, **State maps of general behaviors, their lattice structure and bisimulations**, in the *Proc. Conference on Mathematical Theory of Networks and Systems*, Leuven, Belgium, 2004.
37. A.A. Julius, A.J. van der Schaft, **A behavioral framework for compositionality: linear systems, discrete event systems and hybrid systems**, in the *Proc. Conference on Mathematical Theory of Networks and Systems*, Leuven, Belgium, 2004.
38. J.C. Willems, M.N. Belur, A.A. Julius, H.L. Trentelman, **The canonical controller and its regularity**, in the *Proc. 42nd IEEE Conf. Decision and Control*, pp 1639-1644, Hawaii, USA, 2003.
39. A.A. Julius, A.J. van der Schaft, **Compatibility of behavioral interconnections**, in the *Proc. European Control Conf.*, Cambridge, UK, 2003.
40. S.N. Strubbe, A.A. Julius, A.J. van der Schaft, **Communicating Piecewise Deterministic Markov Processes**, in the *Proc. IFAC Conf. Analysis and Design of Hybrid Systems*, pp 349-354, St. Malo, France, 2003.
41. A.A. Julius, S.N.Strubbe, A.J. van der Schaft, **Control of hybrid behavioral automata by interconnection**, in the *Proc. IFAC Conf. Analysis and Design of Hybrid Systems*, pp 135-140, St. Malo, France, 2003.
42. A.J. van der Schaft, A.A. Julius, **Achievable behavior by composition**, in the *Proc. IEEE Conf. Decision and Control*, pp 7-12, Las Vegas, USA, 2002.
43. A.A. Julius, A.J. van der Schaft, **The maximal controlled invariant sets of switched linear systems**, in the *Proc. IEEE Conf. Decision and Control*, pp 3174-3179, Las Vegas, USA, 2002.
44. O.E. Kaiser, A.A. Julius, S. Pietrzko, M. Morari, **Uncontrollable modes in double wall panels**, in the *Proc. 17th Int. Congress on Acoustics*, Paper no. 7P.09., Rome, Italy, 2001.

1. A.A. Julius, M. Zavlanos, S. Boyd, G.J. Pappas, Genetic network identification using convex programming, Technical Report MS-CIS-07-20, Department of Computer and Information Science, University of Pennsylvania, 2007.
2. A.A. Julius, O.E. Kaiser, S. Pietrzko, M. Morari, *Modeling, optimisation, and analysis of noise transmission through a double panes system*, Technical report AUT00-17, Automatic Control Lab, Dept. Electrical Engineering, ETH Zurich, 2000.

Technical workshop speaker

1. (May 2011) IM-CPS: International Symposium on Interdisciplinary Modeling of Cyber Physical Systems, University of Manchester, UK. Organizer: Manuela Bujorianu.
2. (May 2009) DIMACS Workshop on Control Theory and Dynamics in Systems Biology, Rutgers University, USA. Organizers: Eduardo Sontag and Patrick De Leenheer.
3. (April 2009) HSCB 2009: Hybrid Systems Approaches to Computational Biology, at the 2009 CPS Week, San Francisco, USA. Organizer: Calin Belta.
4. (April 2009) Second International Workshop on Numerical Software Verification, at the 2009 CPS Week, San Francisco, USA. Organizers: Georgios Fainekos and Sriram Sankaranarayanan.
5. (December 2008) Stochastic Hybrid Systems Workshop, at the IEEE 47th Conf. Decision and Control, Cancun, Mexico. Organizer: Alessandro Abate.

INVITED TALKS AND LECTURES

Katholieke Universiteit Leuven (2003), University of Groningen (2004), CWI Amsterdam (Center for Mathematics and Informatics) (2004), Carnegie Mellon University (2005), Drexel University (2006,2007), University of New Mexico (2007), Iowa State University (2008), Lehigh University (2008), Rensselaer Polytechnic Institute (2008), University of Delaware (2008), University of Washington (2008), Boston University (2009), Drexel University (2012).

PROFESSIONAL ACTIVITIES

1. IEEE (member), ISCB (member)
2. IEEE Control Systems Society Conference Editorial Board
3. Reviewer for ACM Transaction in Embedded Computing Systems, IEEE Transaction on Automatic Control, SIAM J. Control and Optimization, Systems and Control Letters, and various conferences.
4. Organizer of an invited session on Stochastic Hybrid Systems at the 2006 American Control Conference. Chair person of a session at the American Control Conference 2006 and European Control Conference 2003.
5. Panel reviewer for the National Science Foundation CISE and ENG directorates.