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SUMMARY

Vijay Gupta is a Professor of Electrical Engineering and a concurrent Professor of Aerospace and Mechanical Engineering at the University of Notre Dame, having joined the faculty in January 2008. He received his B. Tech degree at Indian Institute of Technology, Delhi, and his M.S. and Ph.D. at California Institute of Technology, all in Electrical Engineering. He previously served as a research associate in the Institute for Systems Research at the University of Maryland, College Park, a consultant at the United Technologies Research Center, and as the Associate Chair and the Director for Graduate Studies in the Department of Electrical Engineering at Notre Dame. He has received the 2018 Antonio Ruberti Young Research Award from the IEEE Control Systems Society, the 2013 Donald P. Eckman Award from the American Automatic Control Council, an 2009 National Science Foundation (NSF) CAREER Award, the 2010 Ruth and Joel Spira Award for excellence in teaching in the Department of Electrical Engineering at University of Notre Dame, and the 2001 Best Thesis Award by the Indian National Academy of Engineers. He was the faculty advisor of a finalist for the Best Student Paper award at the American Control Conference, 2015 and was an invited plenary speaker at the American Control Conference 2014. Gupta's research and teaching interests are at the interface of learning, game theory, and distributed systems, with applications to transportation networks, power grid, and parallel computing.

EDUCATION

Ph.D., Electrical Engineering, May 2007
“Distributed Estimation and Control in Networked Systems”
Advisors: Prof. Richard M. Murray and Prof. Babak Hassibi
Dissertation accepted for publication as a monograph by Verlag VDM
California Institute of Technology, Pasadena, CA

M.S., Electrical Engineering, June 2002
California Institute of Technology, Pasadena, CA

B.S., Electrical Engineering, August 2001
2nd in a Class of 65, Best Thesis Award in Electrical Engineering, Best Thesis Award 2001 by the Indian National Academy of Engineers,
Indian Institute of Technology, Delhi, India

HONORS AND AWARDS

- Antonio J. Ruberti Award, 2018 from the IEEE Control Systems Society “for Contributions to the Fundamentals of Networked and Cyber-Physical Systems.” The Ruberti award is given annually by the IEEE Control Systems Society to recognize outstanding achievements by a researcher under the age of 40 in control theory.
- Donald P. Eckman Award, 2013 from the American Automatic Control Council for “Contributions to Theory of Networked, Cyberphysical Systems.” The Eckman Award is given annually by the American Automatic Control Council to recognize outstanding achievements by a researcher under the age of 35 in control theory.

- Invited plenary talk at American Control Conference 2014. The ACC is an annual conference co-sponsored by eight societies jointly - AIAA (American Institute of Aeronautics and Astronautics), AIChE (American Institute of Chemical Engineers), ASCE (American Society of Civil Engineers), ASME (American Society of Mechanical Engineers), IEEE (Institute of Electrical and Electronics Engineers), ISA (International Society of Automation), SCS (Society for Modeling & Simulation International), and SIAM (Society for Industrial and Applied Mathematics).
- Advisor and co-author on paper that was a finalist in the Best Student Paper award at the American Control Conference, 2015, co-author on paper that was awarded the Best Student Paper award at the 2nd International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS 2016).
- NSF CAREER award, 2009 for project titled “Scalable and Optimal Co-design of Control and Communication Protocols in Cyber-Physical Systems.”
- Ruth and Joel Spira Award for Excellence in Teaching, 2010, Department of Electrical Engineering, University of Notre Dame. The awardee is selected through student nominations.
- Selected for the Faculty Scholarship Award Program, University of Notre Dame, 2010, 2014.
- B. Tech thesis titled “Adaptable MEMS Components using MMIC” awarded the Rajiv Bambawale award for the best Thesis in Electrical Engineering, IIT Delhi, 2001, and for the Best Thesis Award 2001 by the Indian National Academy of Engineers.
- Winner of the lifetime National Talent Search Scholarship by the Government of India.

RESEARCH AND
EXPERIENCE

<i>Professor (Electrical Engineering)</i>	University of Notre Dame
<i>concurrent Professor of Aerospace and Mechanical Engineering</i>	Jan 2008 – Aug 2013 (Assistant Professor)
<i>Faculty Fellow, ND Energy Center</i>	Aug 2013 – Aug 2016 (Associate Professor)
	Aug 2016 – present (Professor)

Research and teaching activities are in the broad area of systems theory. Particular topics of interest are smart and integrated societal infrastructure systems, cyberphysical systems, distributed estimation and control, incentive design, and joint design of control, network, and processing algorithms.

<i>Research Associate</i>	University of Maryland, College Park
<i>Institute for Systems Research</i>	Sept 2006 – Dec 2007

Worked with Prof. John Baras and Prof. Nuno Martins on problems related to sensor networks, real-time data collection and usage for control and estimation and a joint theory for control and communication.

<i>Research Assistant</i>	California Institute of Technology
	Sept 2001 – Aug 2006

Worked with Prof. Richard M. Murray and Prof. Babak Hassibi. Projects included Information Flow in Cooperative Control of Multi-Vehicle Systems (AFOSR) and Information Dynamics for Networked Feedback Systems (NSF).

*Consultant,
Systems Department*

United Technology Research Center
Hartford CT
Sept – Dec 2004

Worked on an application of sensor networks on a Department of Homeland Security project. The proof of concept demonstration was successfully given in Jan 2005. Worked on two different streams. The first involved designing distributed algorithms for estimation, consensus, detection and computation, while considering the limited capabilities of the specific platform being used. The second stream was modeling, simulation and experimental demonstration of electromagnetic, acoustic and magnetic mechanisms being considered for use.

*Research Scientist
Center for Applied Research in Electronics*

Indian Institute of Technology
New Delhi, India
May – Aug 2001

The project aimed at assessing the feasibility of developing millimeter-wave components using dielectric integrated guides and included simulations and some experiments.

*Summer Intern
Networking Group*

IBM, India Research Labs
New Delhi, India
Summer 2000

Worked on physical layer modeling for wireless LANs. Involved physical layer modeling for wireless LANs like Bluetooth and IEEE802.11. The model was used in the open source Bluetooth technology simulator, Bluehoc.

SERVICE TO
PROFESSIONAL
COMMUNITY

- Publication Chair, American Control Conference 2021.
- Chair, Donald P. Eckman Award Committee for AACC, 2018 and 2019.
- CSS member on the IEEE-USA Committee on Communication Policy 2015-2020.
- Associate Editor, European Journal of Control, IEEE Transactions on Automatic Control, Automatica. Guest Associate Editor, International Journal of Robust and Nonlinear Control.
- Member, Conference Editorial Board, IEEE Control Systems Society. As a member, I served as the Associate Editor, American Control Conference, 2011-13 and IEEE Conference on Decision and Control, 2010-13.
- Member, Editorial Board for International Journal of Systems, Control and Communications.
- Technical Program Committee member: International Conference on Robot Communication and Coordination (Robocomm) 2007, 2008, Conference on Control over Communication Channels (Concomm) 2009, Workshop on Distributed Estimation and Control in Networked Systems (Necsys) 2009-13, 2015, 2019, 2022, Symposium on Advances in Optimization for Distributed Control, Information Fusion and Sensor Network Applications at the International Conference on Intelligent Sensors, Sensor Networks and Information Processing (ISSNIP) 2010, RTSS 2014, Indian Control Conference 2015, American Control Conference 2020, CAADCPS 2021 (Workshop on Computation-Aware Algorithmic Design for Cyber-Physical Systems).
- Sessions Organized: “Co-design of Control and Real-time Computing” at SIAM Conference on Control and its Applications 2009 (Jointly with Paulo Tabuada), “Networked Control Systems: Perspectives and Research Directions” at IEEE

Conference on Decision and Control 2009 (Jointly with Kishan Baheti), “Networked Control Systems: Applications and Research Challenges” at IEEE Conference on Decision and Control 2010 (Jointly with Kishan Baheti), “Security and Privacy in Information Fusion and Real time Decision Making” at the Asia-Pacific Signal and Information Processing Association Annual Summit and Conference 2018.

- Workshops Organized: “Control of Transportation Systems” at the American Control Conference 2019 (Jointly with Dan Work, Ketan Savla and Mahnoosh Alizadeh), “4-th Workshop on Management and Control of Energy Supply-demand Networks with Renewables,” at University of Notre Dame 2018, “The Second Workshop on Control and Game Theory” at University of Notre Dame London Center 2012 (Jointly with Panos Antsaklis and Getachew Befekadu), “The London Workshop on the Control of Cyber-Physical Systems” at University of Notre Dame London Center 2012 (Jointly with Panos Antsaklis, Bill Goodwine and Kalle Johansson), “Co-design of Control and Real-Time Computing: Perspectives, Techniques and Research Directions” at IEEE Conference on Decision and Control 2010 (Jointly with Paulo Tabuada), “Intersection of Control, Estimation and Communication” at California Institute of Technology 2005, “ Learning and Information in Games and Control” at California Institute of Technology 2006 (Jointly with Cedric Langbort).
- Co-taught a course on Networked Control Systems at the HYCON-EECI Graduate School on Control Spring 2009, Spring 2010, Spring 2011 at Supelec France.

SERVICE TO UNIVERSITY

1. Director for Graduate Studies and Associate Chair, Department of Electrical Engineering, 2016-2019.
2. Member, University Title IX Hearing Board and Appellate Advisory Panel, 2021-present.
3. Member, University Committee on Appeals, 2018-21.
4. Member, University Teaching Effectiveness Report Implementation Committee, 2018-2021.
5. Faculty Mentor, IEEE Student Branch, Notre Dame, 2008-2020
6. Recruiter for College of Engineering, Career Fair, Tau Beta Pi 2008 and the Department at the SACNAS conference 2018.
7. Member Faculty Senate (2009-10), College Council (2009-12), Admissions Committee (2008, 2009, 2010, 2015), Undergraduate Students Committee (2008-09, 2013-14, 2014-15, 2016-18), Graduate Students Committee (2008-09, 2009-10, 2016-present), Qualifier evaluation committee (2008-2013), Coordinator Systems Seminar Series (2010).

UNIVERSITY TEACHING

1. ‘EE:20234: Circuit Analysis,’ Spring 2014, Spring 2015, Spring 2016, Spring 2017, Spring 2018.
2. ‘EE:47041: Game Theory for Electrical Engineers,’ Fall 2018, Fall 2019, Fall 2020. This is a new course that I have developed to introduce senior undergraduate students to game theory and its applications in engineered systems.

3. 'EE:47058 (cross-listed as EE:67058): Neural Networks for Electrical Engineers,' Spring 2019, Spring 2020. This is a new course that I have developed to introduce senior undergraduate and graduate students to neural networks, learning and applications in engineered systems.
4. 'EE:67046: Introduction to Markovian Jump Linear Systems,' Fall 2012, Fall 2013. This is a new course that I have developed to introduce graduate students to LMI methods in control and Markovian jump linear systems.
5. 'EE 80675: Stochastic Control Theory,' Spring 2012, Fall 2016.
6. 'EE87020: Topics in Networked Control', Graduate course, Spring 2008, Fall 2011, Fall 2014. This is a new course that I have developed to introduce students to research and open problems in networked control.
7. 'EE60563: Random Variables, Detection and Estimation,' Graduate course, Fall 2008, Fall 2009, Fall 2010.
8. 'EE30354: Signals and Systems-II,' Undergraduate course, Spring 2009, Spring 2010, Spring 2011.
9. 'EE:67045: Static and Dynamic Game Theory,' Fall 2015.
10. Research and Special Studies Courses for Undergraduates: 'Undergraduate Research,' 3 students each, Fall 2009, Spring 2010, Fall 2013 'Special Studies,' 2 students, Fall 2009.

CURRENT
RESEARCH
ASSISTANTS

1. Post-Doctoral Scholar
 - Krishna C. Kosaraju
 - Lintao Ye
 - Bhaskar Vundurthy
2. Graduate Students
 - Soumyadip Ghosh
 - Bernardo Cruz
 - Martin Figura

PAST RESEARCH
ASSISTANTS

1. Post-Doctoral Scholars
 - Luan Nguyen (Presently at University of Dayton)
 - Lanlan Su (presently at University of Leicester)
 - Ashkan Zeinalzadeh
 - Yue Wang (jointly with Panos Antsaklis, presently faculty at Clemson University)
 - Getachew Befekadu (jointly with Panos Antsaklis and the Moreau Fellowship Program, presently at Morgan State University)
 - Surya Shravan Sajja (jointly with Panos Antsaklis and Bill Goodwine, presently at IBM Ireland)
2. Graduate Students
 - Nayara Gomes de Aguiar (PhD 2021, presently at Mathworks)

- Sivaranjani Seetharaman (PhD 2019, presently postdoc at TAMU, faculty at Purdue)
- Donya Ghavidel-Dobhakhshari (PhD 2019, presently at Ford Research)
- Vaibhav Katewa (PhD 2016, presently faculty at IISc Bangalore)
- Vasundhara Anand (Terminal M.S. 2016, presently at Ford Motor Company)
- Jie Liu (PhD Received 2015, Presently at Conversant LLC)
- Wann-Jiun Ma (PhD Received 2015, Presently at Stylyze)
- Cheng-Zong Bai (PhD Received 2015, Presently at Thermo Fisher)
- Yingbo Zhao (PhD Received 2014, Presently at Cymer LLC)
- Xinzhi Zou (Terminal M.S. 2013, Presently at Microsoft)
- Jing Huang (co-advised, Main advisor Yih-Fang Huang, PhD June 2012, presently at Snap Inc)
- Rahul Singh (Terminal M.S. 2011, presently faculty at IISc Bangalore)
- Utsav Kumar (co-advised, Main advisor Nick Laneman, M. S. Dec 2009, PhD September 2012, presently employed at Intel)

MONOGRAPH

1. “Design of Information Flow for Networked Control Systems”, V. Gupta, VDM Verlag Dr. Muller, September 2007.

JOURNAL
PUBLICATIONS

1. “Distributed Resource Allocation over Time-varying Balanced Digraphs with Discrete-time Communication,” L. Su, M. Li, V. Gupta, and G. Chesi, *IEEE Transactions on Control of Network Systems*, Conditionally Accepted, June 2021.
2. “Optical Spectroscopy Sequential Wavelength Selection Using A Higher Leverage Approach,” B. Aquino, V. Gupta, and S. Howard, *IEEE Sensors Letters*, 5(6):1-4, June 2021.
3. “Network-Constrained Stackelberg Game for Pricing Demand Flexibility in Power Distribution Systems,” N. Aguiar, A. Dubey, and V. Gupta, *IEEE Transactions on Smart Grid*, Accepted May 2021.
4. “Safety during Transient Response in Direct Current Microgrids using Control Barrier Functions”, K. C. Kosaraju, S Sivaranjani, and V. Gupta, *IEEE Control Systems Society Letters (L-CSS)*, Accepted April 2021.
5. “Toward A Framework of Enforcing Resilient Operation of Cyber-Physical Systems with Unknown Dynamics,” L. Ngyuen and V. Gupta, *IET Cyber-Physical Systems: Theory & Applications*, Accepted March 2021.
6. “On Stability and Convergence of Distributed Filters,” S. P. Talebi, S. Werner, V. Gupta, and Y.-F. Huang, *IEEE Signal Processing Letters*, 28:494-498, Feb 2021.
7. “Optimal Stationary State Estimation Over Multiple Markovian Packet Drop Channels,” J. Xu, G. Gu, V. Gupta, and Y. Tang, *Automatica*, Accepted January 2021.
8. “Distributed Synthesis of Local Controllers for Networked Systems With Arbitrary Interconnection Topologies,” E. Agarwal, S. Sivaranjani, V. Gupta and P. J. Antsaklis, *IEEE Transactions on Automatic Control*, vol. 66, no. 2, pp. 683-698, Feb. 2021, doi: 10.1109/TAC.2020.2990754.

9. "An Insurance Contract Design to Boost Storage Participation in the Electricity Market," N. Aguiar and V. Gupta, *IEEE Transactions on Sustainable Energy*, vol. 12, no. 1, pp. 543-552, Jan. 2021, doi: 10.1109/TSTE.2020.3011052.
10. "Distributed Mixed Voltage Angle and Frequency Droop Control of Microgrid Interconnections with Loss of Distribution-PMU Measurements," S Sivaranjani, E. Agarwal, V. Gupta, P. J. Antsaklis, and L. Xie, *IEEE Open Access Journal of Power and Energy*, 8:45-56, Dec 2020.
11. "Stabilization of Linear Systems Across a Time-Varying AWGN Fading Channel", by L. Su, V. Gupta, and G. Chesi, *IEEE Transactions on Automatic Control*, 65(11): 4902-4907, Nov 2020. DOI: 10.1109/TAC.2019.2961970
12. "Passivity-Based Analysis of Sampled and Quantized Control Implementations," X. Xu, N. Ozay, and V. Gupta, *Automatica*, volume 119, Sep 2020. DOI: <https://doi.org/10.1016/j.automatica.2020.109064>
13. "Analysis of Two-Dimensional Feedback Systems Over Networks Using Dissipativity", Y. Yan, L. Su, V. Gupta, and P. J. Antsaklis, *IEEE Transactions on Automatic Control*, 65(8): 3241-3255, Aug 2020, DOI: 10.1109/TAC.2019.2945038
14. "Privacy and security of cyberphysical systems," J. Chen, V. Gupta, D. E. Quevedo, and P. Tesi, *International Journal of Robust and Nonlinear Control*, 30(11), 4165-4167, July 2020. <https://doi.org/10.1002/rnc.5051>
15. "A Bayesian Approach to Binary Classification of Mid-Infrared Spectral Data With Noisy Sensors," by B. Aquino, D. Benirschke, V. Gupta, and S. Howard, *IEEE Sensors Journal*, 20(13): 6964-6970, July 2020. DOI: 10.1109/JSEN.2020.2978757
16. "Feedback Passivation of Linear Systems with Fixed-Structured Controllers," L. Su, V. Gupta, and P. J. Antsaklis, *IEEE Control Systems Letters*, 4(2): April 2020.
17. "A Real Options Market-Based Approach to Increase Penetration of Renewables," N. Aguiar, V. Gupta, and P. Khargonekar, *IEEE Transactions on Smart Grid*, vol. 11, no. 2, pp. 1691-1701, March 2020. DOI 10.1109/TSG.2019.2942258
18. "Differential Privacy for Network Identification," V. Katewa, A. Chakraborty, and V. Gupta, *IEEE Transactions on Control of Network Systems*, vol. 7, no. 1, pp. 266-277, March 2020. DOI: 10.1109/TCNS.2019.2922169
19. "A Reputation-Based Contract for Repeated Crowdsensing with Costly Verification", D. Ghavidel-Dobakhshari, P. Naghizadeh, M. Liu, and V. Gupta, *IEEE Transactions on Signal Processing*, 67(23): 6091-6104, Dec 2019. DOI: 10.1109/TSP.2019.2952050
20. "An Incentive Scheme For Sensor Fusion With Strategic Sensors," K. Chen, D. Ghavidel-Dobakhshari, V. Gupta, and Y.-F. Huang, *IEEE Transactions on Signal Processing*, 67(24): Dec 15, 2019.
21. "Reliability Contracts Between Renewable and Natural Gas Power Producers," David D'Achiardi, Nayara Aguiar, Stefanos Baros, Vijay Gupta, Anuradha M. Annaswamy, *IEEE Transactions on Control of Network Systems*, 6(3): 1075-1085, September 2019.
22. "Trade-Offs in Stochastic Event-Triggered Control," B. Demirel, A. S. Leong, V. Gupta, and D. E. Quevedo, *IEEE Transactions on Automatic Control*, 64(6): 2567-2574, June 2019.

23. "Stabilizability Conditions for Linear Time Invariant Systems across a Gaussian MAC Channel," J. Liu and V. Gupta, *IEEE Transactions on Automatic Control*, 64(6): 2310-2323, June 2019.
24. "A Contract Design Approach for Phantom Demand Response," D. Ghavidel-Dobhakhshari and V. Gupta, *IEEE Transactions on Automatic Control*, 64(5): 1974-1988, May 2019.
25. "Weak Control for Human-in-the-loop Systems" M. Inoue and V. Gupta, *IEEE Control Systems Letters*, 3(2):440-445, April 2019.
26. "On Passivity of Fractional Order Systems," M. Rakhshan, B. Goodwine, and V. Gupta, *SIAM Journal on Control and Optimization*, 57(2): 1378-1389, March 2019.
27. "An event triggered protocol for distributed optimal coordination of double-integrator multi-agent systems," D. Wang, V. Gupta, and W. Wang, *Neurocomputing*, 319:34-41, November 2018.
28. "On Privacy vs Cooperation in Multi-agent Systems," V. Katewa, F. Pasqualetti, and V. Gupta, *International Journal of Control*, 91(7):1693-1707, July 2018.
29. "Conic-sector-based analysis and control synthesis for linear parameter varying systems," Sivaranjani S, J. R. Forbes, P. Seiler, and V. Gupta, *IEEE Control Systems Letters*, 2(2):224-229, April 2018.
30. "Stochastic Dynamic Pricing for EV Charging Stations with Renewables Integration and Energy Storage," C. Luo, Y.-F. Huang, and V. Gupta, *IEEE Trans. on Smart Grid*, 9(2):1494-1505, March 2018.
31. "Distributed Energy Management for Networked Microgrids Using Online Alternating Direction Method of Multipliers with Regret," W.-J. Ma, J. Wang, V. Gupta, and C. Chen, *IEEE Transactions on the Smart Grid*, 9(2):847-856, March 2018.
32. "On Kalman Filtering with Compromised Sensors: Attack Stealthiness and Performance Bounds," C.-Z. Bai, F. Pasqualetti, and V. Gupta, *IEEE Transactions on Automatic Control*, 62(12):6641-6648, Dec 2017.
33. "Provably Safe Cruise Control of Vehicular Platoons," S. Sadraddini, Sivaranjani S., V. Gupta, and C. Belta, *IEEE Control Systems Letters*, 1(2):262-267, October 2017.
34. "Distributed Charging Control of Electric Vehicles Using Online Learning," W.-J. Ma, V. Gupta, and U. Topcu, *IEEE Transactions on Automatic Control*, 62(10):5289-5295, October 2017.
35. "Data-Injection Attacks in Stochastic Control Systems: Detectability and Performance Tradeoffs," C.-Z. Bai, F. Pasqualetti, and V. Gupta, *Automatica*, 82:251-260, August 2017.
36. "Collaborative Processing in Distributed Control for Resource Constrained Systems," W.-J. Ma, V. Gupta, and D. Quevedo, *IET Control Theory & Applications*, 11(11):1796-1806, July 2017.
37. "An On-line Sensor Selection Algorithm for SPRT with Multiple Sensors," C.-Z. Bai and V. Gupta, *IEEE Transactions on Automatic Control*, 62(7):3532-3539, July 2017.

38. "On the Trade-Off Between Communication and Control Cost in Event-Triggered Dead-Beat Control," B. Demirel, V. Gupta, D. Quevedo, and M. Johansson, *IEEE Transactions on Automatic Control*, 62(6):2973-2980, June 2017.
39. "Networked State Estimation over a Shared Communication Medium," M. Xia, V. Gupta, and P. J. Antsaklis, *IEEE Transactions on Automatic Control*, 62(4):1729-1741, April 2017.
40. "On Stabilization of Decentralized Systems Across Analog Erasure Links," J. Liu and V. Gupta, *IEEE Transactions on Automatic Control*, 62(3):1411-1416, March 2017.
41. "Placement of EV Charging Stations – Balancing The Benefits among Multiple Entities," C. Luo, Y.-F. Huang, and V. Gupta, *IEEE Transactions on Smart Grid*, 8(2):759-768, March 2017.
42. "Passivity and Dissipativity Analysis of a System and its Approximation," M. Xia, P. J. Antsaklis, V. Gupta, and F. Zhu, *IEEE Transactions on Automatic Control*, 62(2):620-635, Feb 2017.
43. "Optimal Operation Mode Selection for a DC Microgrid," W.-J. Ma, J. Wang, X. Lu, and V. Gupta, *IEEE Transactions on the Smart Grid*, 7(6):2624-2632, November 2016.
44. "Feedback Passivation of Discrete-Time Systems under Communication Constraints," Y. Zhao and V. Gupta, *IEEE Transactions on Automatic Control*, 61(11):3521-3526, Nov 2016.
45. "Risk-sensitive control under a Markov modulated Denial-of-Service attack strategies," G. K. Befekadu, V. Gupta and P. J. Antsaklis, *IEEE Transactions on Automatic Control*, 60(12): 3299-3304, December 2015.
46. "A Bode-like Integral for Discrete Linear Time-Periodic Systems," Y. Zhao and V. Gupta, *IEEE Transactions on Automatic Control*, 60(9): 2494-2499, September 2015.
47. "On Feedback Passivity of Discrete-Time Nonlinear Networked Control Systems with Packet Drops," Y. Wang, M. Xia, V. Gupta, and P. J. Antsaklis, *IEEE Transactions on Automatic Control*, 60(9): 2434-2439, September 2015.
48. "Determining Passivity Using Linearization for Systems with Feedthrough Terms," Meng Xia, Panos J. Antsaklis, Vijay Gupta, M. McCourt, *IEEE Transactions on Automatic Control*, 60(9): 2536-2541, September 2015.
49. "Feedback stabilization of Bernoulli jump nonlinear systems: a passivity-based approach", Y. Zhao and V. Gupta, *IEEE Transactions on Automatic Control*, 60(8): 2254-2259, August 2015.
50. "A Stochastic Sensor Selection Algorithm for Sequential Hypothesis Testing with Multiple Sensors," Cheng-Zong Bai, V. Katewa, V. Gupta, and Yih-Fang Huang, *IEEE Transactions on Signal Processing*, 63(14): 3687-3699, July 15 2015.
51. "Anytime Control using Input Sequences with Markovian Processor Availability," D. E. Quevedo, W. Ma, and V. Gupta, *IEEE Transactions on Automatic Control*, 60(2): 515-521, February 2015.
52. "Stochastic Stability of Event-triggered Anytime Control", by Daniel E. Quevedo, Vijay Gupta, Wann-Jiun Ma, Serdar Yuksel, *IEEE Transactions on Automatic Control*, 59(12):3373-3379, Dec 2014.

53. "Reliable Decentralized Stabilization via Extended LMIs and Constrained Dissipativity," G. K. Befekadu, V. Gupta and P. J. Antsaklis, *International Journal of Robust and Nonlinear Control*, 24(16):2179-2193, 10 Nov 2014.
54. "Stability across a Gaussian Product Channel: Necessary and Sufficient Conditions," U. Kumar, J. Liu, V. Gupta, and J. N. Laneman, *IEEE Transactions on Automatic Control*, 56(9):2530-2535, September 2014.
55. "Improving Control Performance across AWGN Channels using a Relay Node," U. Kumar, V. Gupta, and J. N. Laneman, *International Journal of Systems Science*, 45(7):1579-1588, 2014.
56. "On Relationships Among Passivity, Positive Realness, and Dissipativity in Linear Systems," by N. Kottenstette, M. J. McCourt, M. Xia, V. Gupta, and P. J. Antsaklis, *Automatica*, 50(4):1003-1016, April 2014.
57. "On the Reliable Decentralized Stabilization of n-MIMO Systems," G. K. Befekadu, V. Gupta and P. J. Antsaklis, *International Journal of Control*, 87(8):1565-1572, 2014.
58. "On Passivity of a Class of Discrete-Time Switched Nonlinear Systems," Y. Wang, V. Gupta, and P. J. Antsaklis, *IEEE Transactions on Automatic Control*, 59(3):692-702, March 2014.
59. "On Disturbance Propagation in Leader-follower Systems," Y. Zhao, P. Minero and V. Gupta, *Automatica*, 50(2):591-598, Feb 2014.
60. "A further remark on the problem of reliable decentralized stabilization using rectangular dilated LMIs," G. K. Befekadu, V. Gupta and P. J. Antsaklis, *IMA Journal of Maths, Control and Information*, 30(4):571-575, 2013.
61. "Control of Cyberphysical Systems using Passivity and Dissipativity Based Methods," P. J. Antsaklis, B. Goodwine, V. Gupta, M. J. McCourt, Y. Wang, P. Wu, M. Xia, H. Yu, and F. Zhu, *European Journal of Control*, 19(5):379-388, September, 2013.
62. "Characterization of feedback Nash equilibria for multi-channel systems via a set of non-fragile stabilizing state-feedback solutions and dissipativity inequalities," G. K. Befekadu, V. Gupta and P. J. Antsaklis, *Journal of Mathematics of Control, Signals and Systems*, 25(3):311-326, March 2013.
63. "On a Rate Control Protocol for Networked Estimation," V. Katewa and V. Gupta, *Automatica*, 49(5): 1310-1317, May 2013.
64. "On reliable stabilization via rectangular dilated LMIs and dissipativity-based certifications," G. K. Befekadu, V. Gupta and P. J. Antsaklis, *IEEE Transactions on Automatic Control*, 58(3):792-796, March 2013.
65. "On a Control Algorithm for Time-varying Processor Availability," V. Gupta and F. Luo, *IEEE Transactions on Automatic Control*, 58(3):743-748, March 2013.
66. "Sequence-based Anytime Control," D. Quevedo and V. Gupta, *IEEE Transactions on Automatic Control*, 58(2):377-391, February 2013.
67. "Input-to-State Stability of Hybrid Systems with Receding Horizon Control in the Presence of Packet Dropouts," Wann-Jiun Ma and V. Gupta, *Automatica*, Vol. 48, No. 8, August 2012, Page(s): 1920-1923.
68. "State Estimation in Electric Power Grids: Meeting New Challenges Presented by the Requirements of the Future Grid," Y. F. Huang, S. Werner, J. Huang, N.

- Kashyap and V. Gupta, IEEE Signal Processing Magazine, 29(5):33-43, September 2012.
69. "Towards a Science of Cyber-Physical System Integration," J. Sztipanovits, X. Koutsoukos, G. Karsai, N. Kottenstette, P. J. Antsaklis, V. Gupta, B. Goodwine, J. S. Baras, S. Wang, Proceedings of the IEEE, Vol. , No. 99, Jan 2012, Page(s): 29-44.
 70. "On the Effect of Stochastic Delay on Estimation," V. Gupta, IEEE Transactions on Automatic Control, Vol. 56, No. 9, Sep. 2011, Page(s): 2145-2150.
 71. "Convergence Speed of the Consensus Algorithm with Interference and Sparse Long-Range Connectivity," S. Vanka, M. Haenggi, and V. Gupta, IEEE Journal of Selected Topics in Signal Processing, vol. 5, Aug. 2011, pp. 855-865.
 72. "On Estimation across Analog Erasure Links with and without Acknowledgements," V. Gupta, IEEE Transactions on Automatic Control, Vol. 55, No. 12, Dec. 2010, Page(s): 2896-2901.
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