

## **Curriculum Vitae**

Notarization. I have read the following and certify that this *curriculum vitae* is a current and accurate statement of my professional record.

Signature \_\_\_\_\_ Date: January 9, 2026

### **I. Personal Information**

#### **I.A. Last Name, First Name, Middle Name, Contact Information**

- Martins, Nuno, Miguel Lara Cintra, (aka on papers: Nuno C. Martins)
- Phone 301 405 9198, Email: nmartins@umd.edu
- ECE Department (U.Maryland) - AV Williams Building office number 2321
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#### **I.B. Academic Appointments at UMD**

**From Until Position**

2017	Present	Professor, Department of Electrical and Computer Engineering (UMCP).
2011	2017	Associate Professor, Department of Electrical and Computer Engineering (UMCP).
2005	2011	Assistant Professor, Department of Electrical and Computer Engineering (UMCP).
2005	Present	Joint appointment with the Institute for Systems Research (UMCP).

#### **I.C. Administrative Appointments at UMD**

**From Until Position**

2012	2014	Director of the Maryland Robotics Center (UMCP).
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#### **I.D. Other Employment**

**From Until Position**

2004	2005	Postdoctoral Associate at the Laboratory for Information and Decision Systems (MIT).
1999	2004	Graduate Research Assistant at the Department of EECS (MIT).
1998	1999	Invited Researcher at INESC, Portugal.
1994	1999	Teaching Staff at the Polytechnic Institute of Setubal, Portugal.

## I.E. Educational Background

2004 Ph.D. in Electrical Engineering and Computer Science (minor: Mathematics), MIT.  
1997 MS in Electrical and Computer Engineering, IST - Technical University of Lisbon.  
1994 Licenciatura in Electrical and Computer Engineering, IST - Technical University of Lisbon.

## I.F. Professional Certifications and Licenses

2004 Financial Technology Option (two-year program), Sloan School of Management, MIT.

## II. Awards, Honors and Recognition

### II.1. Research Fellowships, Prizes and Awards

**RA.1** 2010 George Axelby Award for an Outstanding paper in the IEEE Transactions on Automatic Control for the period 2008-2009.

**RA.2** Outstanding Systems Engineering Faculty, awarded by the ISR in the Spring of 2010.

**RA.3** NSF CAREER, awarded in 2007 by the National Science Foundation.

**RA.4** O. Hugo Schuck Award, awarded in 2006 by the American Automatic Control Council for the best theory paper in the 2005 American Control Conference.

### II.2 Teaching Awards

**TA.1** ECE George Corcoran Memorial Award for "exemplary contributions to teaching and educational leadership," awarded by the ECE Department in 2010.

### II.3 Other Special Recognition

**SR.1** Elevated to senior member of the IEEE, 2017.

**SR.2** UMD Advance Leadership Fellow, 2013.

## III. Research, Scholarly and Creative Activities

### III.A. Book Chapters

**BC.1** M. M. Vasconcelos and N. C. Martins, "A Survey on Remote Estimation Problems," Principles of Cyber-Physical Systems: An Interdisciplinary Approach, S. Roy and S. Das (Ed), Cambridge University Press, October, 2020, pp. 81-103.

**BC.2** W. A. Malik, N. C. Martins, and A. Swami, "LQ Control Under Security Constraints," Proceedings of the 2013 Workshop on Control of Cyber-Physical Systems, Lecture Notes in Control and Information Sciences, Springer, 2013, pp. 101-120.

**BC.3** N. C. Martins, "Control Over Digital Networks," The Control Handbook, 2nd Edition, William Levine (Ed), Kluwer Academic Publishers, December 2010.

### III.B. Articles in Refereed Journals (provisionally accepted, accepted and published)

(Note: the volume number and page numbers may not be available for recent publications.)

**JA.1** M. S. Hankins, S. Kara, N. C. Martins and M. Arcak, "Population Games with Sub-strategies and Evolutionary Nash Equilibrium Learning," to appear in Dynamic Games and Applications (special issue to honor Tamer Basar's 80th birthday), 2025.

**JA.2** J. Certório, Kevin Chang, Nuno C Martins, Pierluigi Nuzzo, Yasser Shoukry, "Passivity tools for hybrid learning rules in large populations," to appear in Automatica, 2025.

**JA.3** N. C. Martins, J. Certório and M. S. Hankins, "Counterclockwise Dissipativity, Potential Games and Evolutionary Nash Equilibrium Learning," IEEE Transactions on Automatic Control, vol. 71, no. 1, pp. 652-659, 2026.

**JA.4** M. S. Hankins, J. Certório, T. Jeng and N. C. Martins, "Nash Equilibrium Learning in Large Populations With First-Order Payoff Modifications," IEEE Control Systems Letters, vol. 9, pp. 396-401, 2025.

**JA.5** S. Park, J. Certorio, N. C. Martins and R. J. La, "Epidemic Population Games and Perturbed Best Response Dynamics," IEEE Transactions on Automatic Control, vol. 70, no. 9, pp. 6036-6049, Sept. 2025.

**JA.6** S. Kara and N. C. Martins, "Learning Nash Equilibria in Large Populations With Constrained Strategy Switching," IEEE Control Systems Letters, vol. 8, pp. 1265-1270, 2024.

**JA.7** N. C. Martins, J. Certório and R. J. La, "Epidemic population games and evolutionary dynamics," Automatica, Vol. 153, 2023.

**JA.8** S. Kara and N. C. Martins, "Excess Payoff Evolutionary Dynamics With Strategy-Dependent Revision Rates: Convergence to Nash Equilibria for Potential Games," IEEE Control Systems Letters, Vol. 7, pp. 1009-1014, 2022. (Also presented at the ACC 2023)

**JA.9** S. Kara and N. C. Martins, "Pairwise Comparison Evolutionary Dynamics with Strategy-Dependent Revision Rates: Stability and  $\delta$ -Passivity," IEEE Transactions on Control of Network Systems, pp.1-12, 2022.

**JA.10** J. Certório, N. C. Martins and R. J. La, "Epidemic Population Games With Nonnegligible Disease Death Rate," IEEE Control Systems Letters, Vol. 6, pp. 3229-3234, 2022. (Also presented at the IEEE CDC 2022)

**JA.11** M. Lin, N. C. Martins and R. J. La, "Queueing Subject to Activity-Dependent Server Performance: Task-Assignment Control Policies for Utilization Rate Reduction," IEEE Transactions on Control of Network Systems, Vol. 9, No. 1, pp. 257-268, 2022.

**JA.12** S. Cheng and N. C. Martins, "An Optimality Gap Test for a Semidefinite Relaxation of a Quadratic Program with Two Quadratic Constraints," SIAM Journal on Optimization 31 (1), pp. 866-886, 2021.

**JA.13** M. Lin, R. J. La and N. C. Martins, "Stabilizing a Queue Subject to Activity-Dependent Server Performance," IEEE Transactions on Control of Network Systems, Vol. 8, No. 4, pp. 1579 - 1591, 2021.

**JA.14** M. Arcak and N. C. Martins, "Dissipativity Tools for Convergence to Nash Equilibria in Population Games," IEEE Transactions on Control of Network Systems, Vol. 8., No. 1, pp. 39 – 50, 2021.

**JA.15** J. A. Becker, M. C. Hutchinson, A. B. Potter, S. Park, J. A. Guyton, K. Abernathy, V. F. Americo, A. Conceição, T. R. Kartzinel, L. Kuziel, N. E. Leonard, E. Lorenzi, N. C. Martins, J. Pansu, W. L. Scott, M. K. Stahl, K. R. Torrens, M. E. Stalmans, R. A. Long, R. M. Pringle, "Ecological and behavioral mechanisms of density-dependent habitat expansion in a recovering African ungulate population," Ecol. Monographs, 91(4), 2021.

**JA.16** M. Vasconcelos and N. C. Martins, "Optimal Remote Estimation of Discrete Random Variables Over the Collision Channel," IEEE Transactions on Automatic Control, Vol. 64, No. 4, 2019, pp. 1519-1534.

**JA.17** S. Park, K. H Aschenbach, M. Ahmed, W. L Scott, N. E Leonard, K. Abernathy, G. Marshall, M. Shepard, N. C. Martins, "Animal-borne wireless network: Remote imaging of community ecology," Journal of Field Robotics, Vol. 36, No. 6, 2019, pp. 1141-1165.

**JA.18** E. R. Arvelo and N. C. Martins, "Optimal sensor scheduling for station-keeping in denied environments," Journal of the Franklin Institute 356 (17), 2019, pp. 10480-10513 (Special Issue on Distributed Event-Triggered Control, Estimation, and Optimization).

**JA.19** S. Sabau, N. C. Martins and M. C. Rotkowitz, "A Convex Characterization of Multidimensional Linear Systems Subject to SQI Constraints," IEEE Transactions on Automatic Control, Vol. 62, No. 6, 2017, pp. 2981-2986.

**JA.20** S. Park and N. C. Martins, "Design Of Distributed LTI Observers For State Omniscience," IEEE Transactions on Automatic Control, Vol. 62, No. 2, 2017, pp. 561-576.

**JA.21** M. Vasconcelos and N. C. Martins, "Optimal Estimation Over The Collision Channel," IEEE Transactions on Automatic Control, Vol. 62, No. 1, 2017, pp. 321-336.

**JA.22** E. Arvelo and N. C. Martins, "Maximizing The Set Of Recurrent States Of An MDP, Subject to Convex Constraints," Automatica 50 (2014), pp. 994-998.

**JA.23** S. Sabau and N. C. Martins, "Youla-like Parametrizations Subject To QI Subspace Constraints," IEEE Transactions on Automatic Control, Vol. 59, No. 6, 2014, pp. 1411-1422.

**JA.24** M. C. Rotkowitz and N. C. Martins, "On The Nearest Quadratically Invariant Information Constraint," IEEE Transactions on Automatic Control, Vol 57, No 5, 2012, pp. 1314-1319.

**JA.25** G. Lipsa and N. C. Martins, "Optimal Memoryless Control In Gaussian Noise: A Simple Counterexample," Automatica 47 (2011), pp. 552-558.

**JA.26** G. Lipsa and N. C. Martins, "Remote State Estimation With Communication Costs For First-Order LTI Systems," IEEE Transactions on Automatic Control, Vol 56, No 9, September 2011, pp. 2013-2025.

**JA.27** V. Gupta and N. C. Martins, "On Stability In The Presence Of Analog Erasure Channels Between Controller and Actuator," IEEE Transactions on Automatic Control, Volume 55, Issue 1, 2010, pp. 175-179.

**JA.28** V. Gupta and N. C. Martins, "Optimal Tracking Control Across Erasure Communication Links In The Presence Of Preview," International Journal of Robust and Nonlinear Control, Issue 16, Volume 19, Control under limited information: Special issue (Part I), November 2009, pp. 1837-1850.

**JA.29** N. C. Martins and J. Goncalves, "A Linear Programming Approach To Parameter Fitting For The Master Equation," IEEE Transactions on Automatic Control, Volume 54, Issue 10, 2009, pp. 2451-2455.

**JA.30** K. Running and N. C. Martins, "Optimal Preview Control Of Markovian Jump Linear Systems," IEEE Transactions on Automatic Control, Volume 54, Issue 9, 2009, pp. 2260-2266.

**JA.31** V. Gupta, N. C. Martins and J. S. Baras, "Optimal Output Feedback Control Using Two Remote Sensors Over Erasure Channels," IEEE Transactions on Automatic Control, Volume 54, Issue 7, 2009, pp. 1463-1476.

**JA.32** N. C. Martins and T. Weissman, "Coding For Additive White Noise Channels With Feedback Corrupted By Quantization Or Bounded Noise," IEEE Transactions on Information Theory, Volume 54, Issue 9, 2008, pp. 4274-4282.

**JA.33** N. C. Martins and M. A. Dahleh, "Feedback Control in the Presence of Noisy Channels: "Bode-Like" Fundamental Limitations Of Performance," IEEE Transactions on Automatic Control, Volume 53, Issue 7, 2008, pp. 1604-1615.

**JA.34** N. C. Martins, M. A. Dahleh and John C. Doyle, "Fundamental Limitations Of Disturbance Attenuation In The Presence Of Side Information," IEEE Transactions on Automatic Control, Volume 52, Issue 1, 2007, pp. 56-66.

**JA.35** N. C. Martins, "Finite Gain  $l_p$  Stability Requires Analog Control," Systems and Control Letters, Volume 55, 2006, pp. 949-954.

**JA.36** N. C. Martins, M. A. Dahleh and N. Elia, "Feedback Stabilization Of Uncertain Systems In The Presence Of A Direct Link," IEEE Transactions on Automatic Control, Volume 51, Issue 3, 2006, pp. 438-447.

### III.C. Submissions and Works in Progress

**MR.1** Semih Kara, Yasin Sonmez, Can Kizilkale, Alex Kurzhanskiy, Nuno C Martins, Murat Arcak, "Congestion Reduction in EV Charger Placement Using Traffic Equilibrium Models," under review for IEEE Intelligent Transportation Systems Transactions, 2025.

### III.D. Published Conference Proceedings

#### III.D.1. Refereed Conference Proceedings (last 10 years)

**C.-1** J. Certório and N. C. Martins, "Stabilizing Populations of Well-Behaved Learning Agents with Exogenous Dynamics," 2025 IEEE 64th Conference on Decision and Control (CDC), Rio de Janeiro, Brazil, 2025, pp. TBA.

**C.-2** Y. Xiao, J. Certorio, N. C. Martins (29355), Y. Shoukry, P. Nuzzo, "Incentive Design for Safe Nash Equilibrium Learning in Large Populations Via Control Barrier Functions," 2025 IEEE 64th Conference on Decision and Control (CDC), Rio de Janeiro, Brazil, 2025, pp. TBA.

**C.-3** Yu-Wen Chen, N. C. Martins, M. Arcak, "Hierarchical Decision-Making in Population Games," 2025 IEEE 64th Conference on Decision and Control (CDC), Rio de Janeiro, Brazil, 2025, pp. TBA.

**C.-4** J. Certório, N. C. Martins, R. J. La and M. Arcak, "Incentive Designs for Learning Agents to Stabilize Coupled Exogenous Systems," 2024 IEEE 63rd Conference on Decision and Control (CDC), Milan, Italy, 2024, pp. 5318-5325.

**C.-5** J. Certório, R. J. La and N. C. Martins, "Epidemic Population Games for Policy Design: Two Populations with Viral Reservoir Case Study," 2023 62nd IEEE Conference on Decision and Control (CDC), Singapore, Singapore, 2023, pp. 7667-7674.

**C.-6** S. Kara and N. C. Martins, "Population Games With Erlang Clocks: Convergence to Nash Equilibria For Pairwise Comparison Dynamics," IEEE Conference on Decision and Control, pp. 7688-7696, 2022.

**C-.7** M. Bahavarnia, Y. Shoukry and N. C. Martins, "Controller Synthesis subject to Logical and Structural Constraints: A Satisfiability Modulo Theories (SMT) Approach," 2020 American Control Conference (ACC), Denver, CO, USA, 2020, pp. 5281-5286.

**C-.8** S. Park, N. C. Martins and J. S. Shamma, "From Population Games to Payoff Dynamics Models: A Passivity-Based Approach," 2019 IEEE Conference on Decision and Control (CDC), Nice, France, 2019, pp. 6584-6601. (Tutorial article)

**C-.9** S. Cheng and N. C. Martins, "Reaching a target in a time-costly area using a two-stage optimal control method," 2019 American Control Conference (ACC), Philadelphia, PA, USA, 2019, pp. 4903-4910.

**C-.10** M. Lin, R. J. La and N. C. Martins, "Remote State Estimation Across an Action-Dependent Packet-Drop Link," 2018 IEEE Conference on Decision and Control (CDC), Miami Beach, FL, 2018, pp. 2828-2835.

**C-.11** M. H. Lotfi, R. J. La and N. C. Martins, "Bayesian Congestion Game with Traffic Manager: Binary Signal Case," 2018 IEEE Conference on Decision and Control (CDC), Miami Beach, FL, 2018, pp. 327-333.

**C-.12** S. Park, J. S. Shamma and N. C. Martins, "Passivity and Evolutionary Game Dynamics," 2018 IEEE Conference on Decision and Control (CDC), Miami Beach, FL, 2018, pp. 3553-3560.

**C-.13** M. M. Vasconcelos and N. C. Martins, "The Structure of Optimal Communication Policies for Remote Estimation Over the Collision Channel with Private and Common Observations," IEEE Conference on Decision and Control, 2016.

**C-.14** S. Park, N. C. Martins, "Optimal Remote State Estimation for Self-Propelled Particle Models," IEEE Conference on Decision and Control, 2016.

**C-.15** D. Ward and N. C. Martins, "Optimal Remote Estimation Over Use-Dependent Packet-Drop Channels," Proceedings of the IFAC Workshop on Distributed Estimation and Control in Networked Systems, 2016.

### III.D.2. Non-Refereed Conference Proceedings

**NC.1** N. C. Martins, M. A. Dahleh and N. Elia, "Sufficient Conditions for the Stabilizability of Multi-State Uncertain Systems, Under Information Constraints," Selected papers of the 2004 (1st) International Conference on Informatics in Control, Automation and Robotics, Springer, J. Braz, H. Araujo, A. Vieira and B. Encarnacao (Eds), 2006, pp. 37-50.

### III.D.3. Conference Proceedings (10+ years ago)

**C+.16** M. M. Vasconcelos and N. C. Martins, "Optimal Threshold Strategies for Remote Estimation Over The Collision Channel with Communication Costs," IEEE Conference on Decision and Control,

2015, pp. 1112-1119.

**C+.17** D. Ward, N. C. Martins and B. Sadler," Optimal Remote Estimation over Action Dependent Switching Channels: Managing Workload and Bias of a Human Operator," Proceedings of the American Control Conference, 2015, pp. 3168-3174.

**C+.18** S. Park and N. C. Martins, "Individually Optimal Solutions to a Remote State Estimation Problem with Communication Costs," Proceedings of the IEEE Conference on Decision and Control, 2014, pp. 4014-4019.

**C+.19** M. M. Vasconcelos and N. C. Martins, "Remote Estimation Games over Shared Networks," Proceedings of the Allerton Conference on Communication, Control, and Computing, 2014, pp. 12-18.

**C+.20** A. Mahajan, N. C. Martins and S. Yuksel, "Static LQG Teams with Countably Infinite Players," Proceedings of the IEEE Conference on Decision and Control, 2013, pp. 6765-6770.

**C+.21** M. Vasconcelos and N. C. Martins, "Estimation over the Collision Channel: Structural Results," Proceedings of the Allerton Conference on Communication, Control, and Computing, 2013, pp. 1114-1119.

**C+.22** E. Arvelo, E. Kim, and N. C. Martins, "Maximal Persistent Surveillance under Safety Constraints," IEEE International Conference on Robotics and Automation, 2013, pp. 4048-4053.

**C+.23** A. P. Sabelhaus, D. Mirsky, M. Hill, N. C. Martins, S. Bergbreiter," TinyTeRP: A Tiny Terrestrial Robotic Platform with Modular Sensing," IEEE International Conference on Robotics and Automation, 2013, pp. 2600-2605.

**C+.24** A. Mahajan, N. C. Martins, M. C. Rotkowitz, S. Yuksel, "Information structures in optimal decentralized control," Proceedings of the IEEE Conference on Decision and Control, 2012, pp. 1291 – 1306. (tutorial article)

**C+.25** S. Park and N. C. Martins, "An Augmented Observer for the Distributed Estimation Problem for LTI Systems," Proceedings of the American Control Conference, 2012, pp. 6775-6780.

**C+.26** W. Malik, N. C. Martins and A. Swami, "Optimal Sensor Placement for Intruder Detection: New Design Principles," Proceedings of the Allerton Conference on Communication, Control, and Computing, 2011, pp. 1537 - 1543.

**C+.27** M. Rotkowitz and N. C. Martins, "On the Number of Iterations to the Closest Quadratically Invariant Information Constraint," Proceedings of the IFAC World Congress, 2011, pp. 9115 - 9120.

**C+.28** W. J. Ma, E. Arvelo and N. C. Martins, "Designing Networked Control Architectures for Incremental Robustness," Proceedings of the IFAC World Congress, 2011, pp. 6604-6609.

**C+.29** S. Sabau and N. C. Martins, "Necessary and Sufficient Conditions for Stabilizability Subject to Quadratic Invariance," Proceedings of the IEEE Conference of Decision and Control, 2011, pp. 2459-2466.

**C+.30** S. Sabau and N. C. Martins, "On the stabilization of LTI decentralized configurations under quadratically invariant sparsity constraints," Proceedings of the Allerton Conference on Communication, Control, and Computing, 2010, pp. 1004-1010.

**C+.31** S. Sabau and N. C. Martins, "On Disturbance Attenuation for Linear Systems under Stable, Additive Plant Perturbations," Proceedings of the American Control Conference, 2010, pp. 6377-6384.

**C+.32** S. Sabau and N. C. Martins, "A convex Parameterization of all Stabilizing Controllers for Non-strongly Stabilizable Plants Under Quadratically Invariant Sparsity Constraints," Proceedings of the American Control Conference, 2009, pp. 878-883.

**C+.33** G. Lipsa and N. C. Martins, "Optimal State Estimation in the Presence of Communication Costs and Packet Drops," Proceedings of the Annual Allerton Conference on Communication, Control and Computing, 2009, pp. 160-169.

**C+.34** M. C. Rotkowitz and N. C. Martins, "On the Closest Quadratically Invariant Constraint," Proceedings of the IEEE Conference on Decision and Control, 2009, pp. 1607-1612.

**C+.35** G. Lipsa and N. C. Martins, "Finite Horizon Optimal Memoryless Control of a Delay in Gaussian Noise: A Simple Counterexample," Proceedings of the IEEE Conference on Decision and Control, 2008, pp. 1628-1635.

**C+.36** S. Firouzabadi and N. C. Martins, "Optimal Node Placement in Wireless Networks," International Symposium on Communications, Control and Signal Processing, 2008, pp. 960-965.

**C+.37** V. Gupta and N. C. Martins, "On Stability in the Presence of Analog Erasure Channels," Proceedings of the IEEE Conference on Decision and Control, 2008, pp. 429-434.

**C+.38** M. Tabbara, D. Nesic and N. C. Martins, "A linear Quadratic Gaussian Framework for Optimal Networked Control System Design," Proceedings of the American Control Conference, 2008, pp. 3804-3809.

**C+.39** I. Matei, N. C. Martins and J. S. Baras, "Optimal State Estimation for Discrete-time Markovian Jump Linear Systems, in the Presence of Delayed Mode Observations," Proceedings of the American Control Conference, 2008, pp. 3560-3565.

**C+.40** V. Gupta and N. C. Martins, "On Optimal Preview Control Across Erasure Communication Links," Proceedings of the American Control Conference, 2008, pp. 3560-3565.

**C+.41** I. Matei, N. C. Martins and J. S. Baras, "Almost Sure Convergence to Consensus in Markovian Random Graphs," Proceedings of the IEEE Conference on Decision and Control, 2008, pp. 3535-3540.

**C+.42** I. Matei, N. C. Martins and J. S. Baras, "Optimal State Estimation for Discrete-Time Markovian Jump Linear Systems, in the Presence of Delayed Output Observations," Proceedings of the IEEE Information Theory Workshop, 2008, pp. 237-242.

**C+.43** V. Gupta, N. C. Martins and J. S. Baras, "Observing a Linear Process Over Analog Erasure Channels Using Multiple Sensors: Necessary and Sufficient Conditions for Mean-square Stability," Proceedings of the IEEE Conference on Decision and Control, 2007, pp. 659-664.

**C+.44** P. Mathai, N. C. Martins and B. Shapiro, "On the Detection of Gene Network Interconnections using Directed Mutual Information," Workshop on Information Theory and Its Applications, 2007, pp. 274-283.

**C+.45** N. C. Martins, "Witsenhausen's Counterexample Holds in the Presence of Side Information," Proceedings of the IEEE Conference on Decision and Control, 2006, pp. 1111-1116.

**C+.46** N. C. Martins, "Finite Gain Stability is Impossible by Bit-Rate Constrained Feedback," Proceedings of the 9th International Workshop on Hybrid Systems: Computation and Control, Springer, 2006, pp. 451-459.

**C+.47** N. C. Martins, M. A. Dahleh and J. C. Doyle, "Disturbance Attenuation Bounds in the Presence of a Remote Preview," Proceedings of the 2005 Workshop on Networked Embedded Sensing and Control, Lecture Notes in Control and Information Sciences, Springer, 2006, pp. 269-285.

**C+.48** N. C. Martins, M. A. Dahleh and J. C. Doyle, "Fundamental Limitations of Disturbance Attenuation in the Presence of Side Information," Proceedings of the IEEE Conference on Decision and Control, 2005, pp. 2523-2529.

**C+.49** N. C. Martins and M. A. Dahleh, "Fundamental Limitations of Performance in the Presence of Finite Capacity Feedback," Proceedings of the American Control Conference, 2005, pp. 79-86.

**C+.50** N. C. Martins, M. A. Dahleh and N. Elia, "Feedback Stabilization of Uncertain Systems Using a Stochastic Digital Link," Proceedings of the IEEE Conference on Decision and Control, 2004, pp. 1889-1895.

**C+.51** N. C. Martins and M. A. Dahleh, "Rate Distortion in the Modal Estimation of Switching FIR Linear Systems," Proceedings of the IEEE Conference on Decision and Control, 2004, pp. 3575-3580.

**C+.52** N. C. Martins and M. A. Dahleh, "An Information Theoretic Approach to the Modal Estimation of Switching FIR Linear Systems," Proceedings of the IEEE Conference on Decision and Control, 2003, pp. 4152-4157.

**C+.53** N. C. Martins, S. Venkatesh and M. A. Dahleh, "Controller Design and Implementation for Large-Scale Systems, a Block Decoupling Approach," Proceedings of the American Control Conference, 2001, pp. 4728-4733.

**C+.54** N. C. Martins, S. Venkatesh and M. A. Dahleh, "Block Decoupling of Linear Systems," Proceedings of the IEEE Conference on Decision and Control, 2000, pp. 4162-4163.

**C+.55** N. C. Martins and M. Athans, "Time-Invariant Kalman Filtering, a Minimax Approach," Proceedings of the IEEE Conference on Decision and Control, 1998, pp. 2896-2901.

**C+.56** N. Martins and A. C. Rosa, "EEG Non-Stationary Spectrum Analysis and Feature Extraction," Proceedings of the IEEE International Conference on Systems, Man and Cybernetics, 1996, pp. 881-886.

**C+.57** N. Martins, F. Freire, C. Matos, A. C. Rosa and T. Paiva, "Automatic Sleep Scoring of EEG Recordings Using Fuzzy Logic," Proceedings of the 7th IEEE IMEKO TC-13 Conference on Measurement in Clinical Medicine, 1995, pp. 170-173.

### III.E. Conferences, Workshops, Tutorials and Talks

#### III.E.1. Keynotes

**KL.1** Keynote Lecture at the 1st International Conference on Informatics in Control, Automation and Robotics, Instituto Politecnico de Setubal, Portugal, August 28, 2004.

#### III.E.2. Invited Talks

**IT.1** Invited seminar at Georgia Tech., School of Electrical and Computer Eng., October 17, 2025. (Host: Sam Coogan)

**IT.2** Invited seminar at Wash. U., Electrical and Systems Eng. Dept., April 14, 2025. (Host: Bruno Sinopoli)

**IT.3** Invited lecture at U.C. Berkeley, EECS Dept., March 11, 2025. (Host: S. Sastry)

**IT.4** Invited distinguished lecture at ETH, Zurich, Switzerland, 2020. (Canceled due to the Covid'19 pandemic)

**IT.5** Invited seminar series at UTRC (United Technologies Research Center), Hartford, Jan 16, 2017.

**IT.6** GRASP/PRECISE seminar series, UPENN, Dec 10th, 2014. (Hosts: Ufuk Topcu and Ali Jadbabaie)

**IT.7** Seminar at Lund University, Sweden, October 18th, 2012. (Host: Bo Bernhardsson)

**IT.8** Yale University, Electrical Engineering Department, New Haven, CT, May 22, 2010. (Host: Sekhar Tatikonda)

**IT.9** Boston University, Center For Information And Systems Engineering, Boston, MA, April 9, 2010. (Host: Yannis Paschalides)

**IT.10** Air Force Research Laboratory, Wright-Patterson Air Force Base, Beavercreek, OH, March 18, 2010. (Host: Siva Banda)

**IT.11** Army Research Laboratory, Adelphi, MD, March 12, 2010. (Host: Anantharam Swami)

**IT.12** University of California at Berkeley, EECS Department, November 6, 2009. (Host: Murat Arcak)

**IT.13** University of California, San Diego, at the Cymer Center for Control Systems and Dynamics, May 18, 2009. (Host: Miroslav Krstic)

**IT.14** Air Force Research Laboratory, Wright-Patterson Air Force Base, Beavercreek, OH, February 13, 2009. (Host: Siva Banda)

**IT.15** Northrop Grumman, Oceanic, Annapolis, MD, November, 25, 2008. (Host: Randall Smith)

**IT.16** Melbourne University, Australia, May 28, 2007. (Host: Dragan Nesic)

**IT.17** University of California, Santa Barbara, October 6, 2006. (Host: Petar Kokotovic)

**IT.18** University of California, Los Angeles, May 11, 2006. (Host: Jeff Shamma)

**IT.19** University of Michigan, April 7, 2006. (Host: James Freudenberg)

**IT.20** University of Cambridge, U.K., January 16, 2006. (Host: Jorge Goncalves)

**IT.21** Johns Hopkins University, November 17, 2005. (Host:Pablo Iglesias)

**IT.22** Technical University of Lisbon, June 15, 2005. (Host: Antonio Pascoal)

**IT.23** Universtiy of California, Los Angeles, April 11, 2005. (Host: Fernando Paganini)

**IT.24** Université Catholique de Louvain, March 30, 2005. (Host: Vincent Blondel)

### III.E.3. Non-Refereed Presentations

**NP.1** N. C. Martins, G. Marshall and N. Leonard, "Remote Imaging of Community Ecology via Animal-borne Wireless Networks: Basic CPS Research and Broader Impacts," American Control Conference Special NSF Session on CPS Systems (Washington DC, June 19, 2013).

### III.E.4. Workshops and Tutorials

**WT.1** Co-organizer, jointly with Shinkyu Park (KAUST) and Murat Arcak (UC Berkeley), of a full day workshop titled "Population Games: Strategic Multi-Agent Interactions at Scale." The workshop was held in Singapore on December 12, 2023 as part of the IEEE Conference on Decision and Control.

**WT.2** Speaker and organizer of a tutorial titled "From Population Games to Payoff Dynamics Models: A Passivity-Based Approach", jointly with S. Park and J. S. Shamma. The two-hour tutorial was held during the 2019 IEEE Conference on Decision and Control. (Each year there are only four tutorials selected from a large pool of proposals. The proposal for this tutorial was written and submitted by Martins. A 18-page article describes the content of the tutorial.)

**WT.3** Invited talk at the workshop "Distributed Autonomy and Human-Machine Networks," IEEE Conference on Decision and Control, December 14, 2015.

**WT.4** Invited talk at the IMA Workshop on "Distributed Control and Decision Making Over Networks," (The Institute for Mathematics and Its Applications - University of Minnesota) October 1, 2015.

**WT.5** Invited talk at the workshop "Control Theory: A Mathematical Perspective on Cyber-Physical Systems," Mathematisches Forschungsinstitut Oberwolfach gGmbH, February 22-27, 2015.

**WT.6** Invited talk at the workshop "Optimal Cooperation, Communication, and Learning in Decentralized Systems," Banff International Research Station for Mathematical Innovation and Discovery, Canada, October 13, 2014.

**WT.7** Speaker and organizer of a tutorial titled "Information structures in optimal decentralized control", jointly with A. Mahajan, M. C. Rotkowitz, S. Yuksel. The two-hour tutorial was held during the 2012 IEEE Conference on Decision and Control. (Each year there are only four tutorials selected from a large pool of proposals. The proposal for this tutorial was written and submitted by Martins. A conference article describes the content of the tutorial.)

**WT.8** Invited talk at the workshop "Connections II," CALTECH, August 15, 2006. (Host: John Doyle)

### III.E.5. Colloquia

**CQ.1** IAI Colloquium Series, Institute for Systems Research, University of Maryland, College Park, December 2, 2015.

**CQ.2** CSL Colloquium at the University of Illinois at Urbana, Champaign, April 1, 2015. (Host: Daniel Liberzon)

**CQ.3** Colloquium of the Electrical Engineering Department at the University of Southern California, March 13th, 2015. (Host: Ashutosh Nayyar)

**CQ.4** Colloquium of the Department of Mathematics and Statistics, Queen's University, Canada, March 9, 2012. (Host: Serdar Yuksel)

**CQ.5** Colloquium Speaker for the Seminar Series of the Laboratory for Information and Decision Systems, MIT, October 28, 2012. (Host: Emilio Frazzoli)

**CQ.6** Colloquium speaker at the Department of Automatic Control, Lund University, Sweden, October 6, 2011. (Host: Anders Rantzer)

**CQ.7** Colloquium speaker at CCDC, U. California at Santa Barbara, Santa Barbara, Ca, Sept 23, 2011. (Host: Andrew Teel)

**CQ.8** Kailath Colloquium, Celebration of the 40th anniversary of the Schalkwijk-Kailath algorithm, Stanford University, July 7, 2006.

## II.G. Fellowships, Gifts and Other Funded Research

### II.G.1. Fellowships

**RF.1** Merit-based Postdoctoral Fellowship awarded in 2004 by the European Social Fund and the Portuguese Science Ministry for the academic year 2004-2005.

## II.H. Centers for Research, Scholarship, and Creative Activities

### II.H.1. Centers Directed

**CD.1** (2012-2014) Maryland Robotics Center, part of the Institute for Systems Research, UMCP.

## III. Teaching, Mentoring and Advising.

### III.A. Teaching Innovations

#### III.A.1. Instructional Workshops and Seminars Established

**SE.1** Since Spring 2014, directs and raises funds to establish the UTRC Invited Lectures on Control and Dynamical Systems (managed in collaboration with P.S. Krishnaprasad through and hosted by the Institute for Systems Research).

#### III.A.2. Course or Curriculum Development

**CD.1** (2020) Developed a new collection of problems and slides to teach ENEE662 (Convex Optimization) remotely.

**CD.2** (2017) Developed and taught a new course ENEE769E centered on population games and evolutionary dynamics.

**CD.3** (2014) Developed a new course ENPM808Q on Control of Robotic Systems, which is part of the new ENPM Certificate and Master of Engineering Program in Robotics.

**CD.4** (2006) Taught a course on Advanced Topics in Control focused on Optimal Networked Control Systems.

### **III.B.1. Post-doctoral Researchers**

**PR.1** MirSaleh Bahavarnia (2018-2020) (sole advisor),  
Placement: Postdoctoral Scholar, Research, Vanderbilt University.

**PR.2** Mohammad Hassan Lotfi Froushani (2017-2019) (co-advised with Richard La),  
Placement: Principal Data Scientist at Capital One.

**PR.3** Konrad Aschenbach (2013-2015), (funded by National Geographic Society's portion of a joint grant, co-advised with Greg Marshall and Kyler Abernathy - National Geographic Society),  
Placement: Proteus Digital Health, Inc., CA.

**PR.4** Vijay Gupta (2006-2007)(co-advised with John Baras),  
Placement: Full Professor in the Department of Electrical Engineering of the University of Notre Dame, IN.

### **III.B.2. Doctoral Students**

(Main Advisor or Co-Advisor)

**DS.1** Tzuyu Jeng (2024 - present) (sole advisor)

**DS.2** Matthew S. Hankins (2024 - present) (sole advisor)

**DS.3** Jair Certorio (graduated in 2025) (main advisor, co-advised with Richard La)  
Placement: Postdoctoral researcher at UCSB, recently hired for a tenure-track faculty position at Instituto Tecnologico de Aeronautica, Brazil.

**DS.4** Semih Kara (graduated in 2024) (sole advisor)  
Placement: Postdoctoral scholar at UIUC.

**DS.5** Michael Lin (graduated in 2020) (co-advised with Richard La)  
Placement: Microsoft Research.

**DS.6** David Ward (graduated in 2017) (sole advisor)  
Placement: Applied Invention (AI).

**DS.7** Eduardo Arvelo (graduated in 2017) (sole advisor)  
Placement: Scientist at EPFL, Lausanne, Switzerland.

**DS.8** Marcos Vasconcelos (graduated in 2016) (sole advisor)

Placement: Postdoctoral Researcher at USC, Los Angeles, CA.

**DS.9** Shinkyu Park (graduated in 2015), (sole advisor)

Placement: Postdoctoral Researcher at MIT (Senseable City Lab/CSAIL), Cambridge, MA.

**DS.10** Waseem Malik (graduated in 2013), (sole advisor)

Placement: Senior Professional Staff at Johns Hopkins Applied Physics Laboratory, MD.

**DS.11** Serban Sabau (graduated in 2011), (sole advisor)

Placement: Assistant Professor of Electrical and Computer Engineering,  
Stevens Institute of Technology, NJ.

**DS.12** Gabriel Lipsa (graduated in 2010), (sole advisor)

Placement: Research Engineer at GE Global Research, Niskayuna, NY.

**DS.13** Ion Matei (graduated in 2010), (co-advisor, advisor was J. Baras - ECE).

Placement: Xerox Park, CA.

(Member of Committee)

**MC.1** Haoyu Yin, Ph.D. ESE (Wash. U.), external committee member (advisor: B. Sinopoli), 2025-present.

**MC.2** Yu-Wen Chen, Ph.D. EECS (U.C. Berkeley), external committee member (advisor: M. Arcak), 2025-present.

**MC.3** Vincent Hsiao, Ph.D. CS (UMD), Dean's representative, 2023.

**MC.4** Kushal Chakrabarti, Ph.D., ECE/ME, 2022.

**MC.5** Baturalp Buyukates, Ph.D., ECE, 2022.

**MC.6** Seyed Sina Sanjari, Ph.D., Mathematics and Statistics, Queen's University, (external evaluator), 2021.

**MC.7** Mohammad Afshari, Ph.D. EE, McGill U. (external evaluator), 2021.

**MC.8** Tianchen Liu, Ph.D. ME (Dean representative), 2020.

**MC.9** Debdipta Goswami, Ph.D. ECE, 2020.

**MC.10** Shashikant Koul, Ph.D. ECE, 2019.

**MC.11** Udit Halder, Ph.D. ECE, 2019.

**MC.12** Served as opponent for Mohsen Barforooshan, Ph.D. Aalborg University, Denmark, 2019.

**MC.13** Dipankar Maity, Ph.D. ECE, 2018.

**MC.14** Abdulrahman Baknina, Ph.D. ECE, 2018.

**MC.15** Alborz Alavian, Ph.D. ECE, 2017.

**MC.16** Ahmed Arafa, Ph.D. ECE, 2017.

**MC.17** Yuchen Zhou, Ph.D. ECE, 2016.

**MC.18** Sikai Qu, Ph.D. ECE, 2016.

**MC.19** Xiaoya Wei, Ph.D. ENEE, 2015.

**MC.20** Anup Menon, Ph.D. ENEE, 2014.

**MC.21** Omur Ozel, Ph.D. ENEE, 2014.

**MC.22** Kun Lin, Ph.D. ENEE, 2013.

**MC.23** Served as opponent for Ali Abbas Zaidi, Ph.D., Department of Electrical Engineering, KTH, Stockholm, Sweden, 2013.

**MC.24** Served as opponent for Erik Johannesson, Ph.D., Department of Automatic Control, Lund University, Sweden, 2011.

**MC.25** John George Karvounis, Ph.D. ECE, 2011.

**MC.26** Kevin Stuart Galloway, Ph.D. ECE, 2011.

**MC.27** Meiyun He, Ph.D. ECE, 2011.

**MC.28** Luke Winternitz Ma, Ph.D. ECE, 2010.

**MC.29** Yao Li, Ph.D. ECE, 2010.

**MC.30** Ravi Tandon, Ph.D. ECE, 2010.

**MC.31** Sung Hyun Chun, Ph.D. ECE, 2009.

**MC.32** Georgios Papageorgiou, Ph.D. ECE, 2009.

**MC.33** Xue Mei, Ph.D. ECE, 2009.

**MC.34** Pedram Hovareshti, Ph.D. ECE, 2009.

**MC.35** Jay Guojian Lin, Ph.D. ECE, 2008.

**MC.36** Wei Kang, Ph.D. ECE, 2008.

**MC.37** Afshin Sepheri, Ph.D. ECE, 2007.

**MC.38** Georgios Theodorakopoulos, Ph.D. ECE, 2007.

**MC.39** Yadong Shang, Ph.D. ECE, 2007.

**MC.40** Alvaro Cardenas, Ph.D. ECE, 2006.

**MC.41** Yijie Han, Ph.D. ECE, 2006.

**MC.42** Maria Striki, Ph.D. ECE, 2006.

**MC.43** Wei Xi, Ph.D. ECE, 2006.

**MC.44** Alejandro Rojas Norman, Ph.D. ECE at U. Melbourne Australia, 2006.

### **III.B.3. Master's Students**

(Main Advisor and Chair of Committee)

**MS.1** Sheng Cheng (graduated in 2018) (sole advisor).

**MS.2** Eli Lorenzi (graduated in 2017), (sole advisor).

**MS.3** Christian P. De Prins (graduated in 2015), (sole advisor)

Placement: Program Manager at Northrop Grumman.

**MS.4** Yonatan Gefen (graduated in 2014), (sole advisor)

Placement: GE Global Research, Niskayuna, NY.

**MS.5** Wann J. Ma (graduated in 2010), (sole advisor)

Placement: Ph.D. Candidate at U. Notre Dame.

**MS.6** Sina Firouzabadi (graduated in 2007), (sole advisor)

Placement: Google.

(Member of Committee)

**MC.1** Ryan K. Lee, M.S. ECE, 2020

**MC.2** Brian Beisen, M.S. ECE, 2014.

**MC.3** Keith McCready, M.S. ECE, 2013.

**MC.4** Michael Kuhlman, M.S. ECE, 2012.

**MC.5** Jaymit Patel, M.S. ECE, 2012.

**MC.6** Nasim Vasili Pourtokto, M.S. ECE, 2006.

**MC.7** Sandy Klemm, M.S. ECE, 2006.

### III.B.4. Undergraduate Students

(Partial List)

**US.1** Joubel Boco (2016 - 2019), (co-advised with Richard La), Placement: Seagate.

**US.2** Charles Tadem (2017 - 2019), (co-advised with Richard La), Placement: Federal Government.

**US.3** Jair Certorio (2016), (co-advised with Richard La), Placement: Graduate student at UMD.

**US.4** Manjur Ahmed (2015), Placement: Accenture.

**US.5** Eric Kim (2012-2013),

Placement: Received NSF Graduate Fellowship, then Ph.D. student at UC Berkley in Controls.

**US.6** Joshua Drubin (2013),

Won first prize at the 2013 MHacks competition.

**US.7** Walter Sczudlo (2011),

Placement: Amazon.

**US.8** Jansen Sheng (2009),

Placement: Graduate student at UC Berkeley.

**US.9** Kevin Kahn (2009),

Placement: (Ph.D. in Biomedical Engineering from JHU) currently a Program Director / Data Scientist at Insight Data Science, Palo Alto, CA.

### III.B.5. Other Advising Activities

**OA.1** Main Faculty Advisor for the "Robotics at Maryland" (RAM) Student Organization from 2007 until 2013 (jointly with D. Akin). Helped raise close to \$ 100,000 of internal and external funds. RAM won the 2008 edition of the UVSI underwater robot competition.

**OA.2** Have advised six visiting students as part of the REU program on "Research Opportunities in Miniature Robotics" (two students each summer in 2012, 2013 and 2014).

**OA.3** Have advised six visiting students as part of the MERIT BIEN program (two students each summer in 2011, 2012 and 2013).

## III.C. Professional and Extension Education

### III.C.1. Professional Programs Established

**PE.1** (2013) In collaboration with S. K. Gupta, established a new ENPM Certificate and Master of Engineering Program in Robotics.

## IV. Service and Outreach

### V.A. Editorships, Editorial Boards, and Reviewing Activities

#### IV.A.1. Editorships

**ED.1** Guest editor for a Special Issue on Information Processing and Decision Making in Distributed Control Systems, International J. Systems, Control and Communications, 2010.

#### IV.A.2. Editorial Boards

**EA.1** Associate Editor for IEEE Transactions on Control of Network Systems (2024 - present)

**EA.2** Associate Editor for Automatica, Elsevier. (2011-2014)

**EA.3** Associate Editor for Systems and Control Letters, Elsevier. (2006-2014)

**EA.4** Associate Editor and Member of the IEEE Control Systems Society Conference Editorial Board. (2008-2013)

#### IV.A.3. Reviewing Activities for Journals and Presses

**RA.1** IEEE Transactions on Automatic Control.

**RA.2** IEEE Transactions on Control of Network Systems.

**RA.3** IEEE Transactions on Information Theory.

**RA.4** Automatica (IFAC).

**RA.5** Systems and Control Letters.

**RA.6** International Journal of Nonlinear and Robust Control.

#### IV.A.4. Reviewing Activities for Agencies and Foundations

**RF.1** Banff International Research Station (proposal review), 2020.

**RF.2** NSF EECS PCAN Panel (2006, 2007, 2008, 2009, 2010, 2016).

**RF.3** AFOSR proposal reviews (2021, 2022)

**RF.4** NSF CAREER Panel (2014, 2022).

**RF.5** NSF CPS Panel (2010, 2014).

**RF.6** ONR Summer Faculty Program (2012).

**RF.7** NSF CMMI Panel (2007, 2010).

**RF.8** NSF IGERT Panel (2010).

**RF.9** AFOSR Summer Faculty Program Panel (2007).

**RF.10** AFOSR YIP Program (dates confidential).

**RF.11** ONR YIP Program (dates confidential).

#### **IV.A.5. Reviewing Activities for Conferences**

**RC.1** Associate Editor for contributed papers for the 6th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys 2016), Tokyo (Japan).

**RC.2** Frequent reviewer for the AACC American Control Conference.

**RC.3** Frequent reviewer for the IEEE Conference of Decision and Control.

**RC.4** Reviewer for IFAC World Congress.

**RC.5** Reviewer for Allerton Conference on Allerton Conference on Communication, Control, and Computing.

**RC.6** TPC for the American Control Conference, Seattle WA, 2008.

**RC.7** TPC for ConCom (Workshop on Control Over Communication Channels), Cyprus, 2007.

**RC.8** TPC for Information Theory Workshop, Oporto, Portugal, 2008.

**RC.9** TPC for IFAC Workshop on Distributed Estimation and Control in Networked Systems, Annecy, France, 2010.

#### **IV.B. Committees, Professional & Campus Service**

##### **IV.B.1. Campus Service - Department**

(ECE Department)

**SD.1** Undergraduate Affairs Committee (Fall 2025 - present)

**SD.2** ECE Graduate Studies and Research Committee (Fall 2015, 2018 - present, Chair 2024 - present).

**SD.3** Brendan Iribe Endowed Professor in Robotics/Automation Search Committee (2021 - 2023). (Led to the hiring of Prof. Calin Belta)

**SD.4** Chair of the Department Council (2021 - 2022).

**SD.5** ECE Department Council (2011 - 2013, 2020 - 2022).

**SD.6** ECE Committee For Undergraduate Curriculum Revision (2020 - 2021).

**SD.7** ECE Strategic hiring committee (2019 - 2020).

**SD.8** (Confidential) ECE Ph.D. Qualifying Committee (2016 - 2018).

**SD.9** ECE Promotion and Tenure. (2013 - 2015, 2017-2019).

**SD.10** ECE Chair Search Committee (2011 - 2012).

**SD.11** ECE Facilities and Services Committee (2007 - 2008, 2011 - 2016).

**SD.12** ECE Faculty Search Committee (2010 - 2011).

**SD.13** ECE Salary Committee (2010 - 2013).

**SD.14** ECE Department Internal Evaluation Committee, which is also charged to carry out an internal evaluation of the Department Chair (2009 - 2010).

**SD.15** Undergraduate Affairs Committee (2006 - 2010).

(Institute for Systems Research)

**SI.1** Scientific Strategic Plan Committee (Fall 2025 - present).

**SI.2** Facilities and Services Committee (Fall 2025 - present).

**SI.3** Coordinator (jointly with P.S. Krishnaprasad) of the UTRC Invited Lectures on Control and Dynamical Systems (2015 - present).

**SI.4** Committee to prepare for ISR's 5-year review (2023).

**SI.5** Chair of the ISR Executive Committee (2021 - 2022).

**SI.6** ISR Executive Committee (2012 - 2014, 2019 - 2021).

**SI.7** Member of APT committee (2019 as a replacement).

**SI.8** Director of the Maryland Robotics Center (2012 - 2014).

**SI.9** Founding Director of The Certificate and Masters of Engineering Program in Robotics (2012 - 2014).

**SI.10** Directs the CPS and Cooperative Autonomy Lab, where he consistently hosts undergraduate projects and outreach activities (2012 - present).

**SI.11** ISR Director Search Committee (2008 - 2009).

**SI.12** Coordinator of the ISR Distinguished Lecturer Series (2010 - 2011).

**SI.13** ISR Education Program Committee (2008 - 2010).

**SI.14** ISR Facilities and Services Committee (2007 - 2008, 2015 - 2017).

**IV.B.2. Campus Service - College**

**CS.1** College of Engineering Council (2013 - 2016).

**CS.2** Founding Director of The Certificate and Masters of Engineering Program in Robotics (2012 - 2014).

**IV.B.3. Campus Service - University**

**US.1** Collaborated with "FIRST Robotics" to move the Chesapeake regional competition from Baltimore to the COMCAST at College Park. With the support of Dean Pines, the COMCAST management and FIRST reached an agreement. The competition was held in our campus on April 4-5, 2014. On suggestion by Martins, the Clark School and FIRST agreed on a suitable arrangement to further leverage the event to promote our programs and capabilities.

**US.2** Main faculty advisor for the Robotics at Maryland student group (2007 - 2014).

**IV.B.4. Leadership Roles in Meetings and Conferences**

**LC.1** International Program Committee (IPC) for the 7th IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys 2018), Groningen, the Netherlands, on August 27-28, 2018.

**LC.2** TPC for the 56th IEEE Conference on Decision and Control, Melbourne, Australia, December 12-15, 2017.

**LC.3** International Program Committee for the 1st IFAC Conference on Cyber-Physical & Human-Systems, Brazil, 2016.

**LC.4** Organizer (jointly with Anders Rantzer - Lund University; and Naomi Leonard - Princeton University) of the IMA Workshop on "Distributed Control and Decision Making Over Networks," (The Institute for Mathematics and Its Applications - University of Minnesota), September 28 - October 2, 2015.

**LC.5** Program Vice-Chair for tutorials for the 2014 IEEE Conference on Decision and Control (Program chair: Andy Teel).

**LC.6** Program Vice-Chair for regular papers for the 2013 IEEE Conference on Decision and Control (Program Chair: Andre Tits).

**LC.7** Director of the Maryland Robotics Center from September 1st 2012 until August 31st 2014. During this period, the Director is responsible for leading and participating in the organization of all outreach events, including the Maryland Robotics day, visits to and by national and foreign organizations and definition of strategies.

**LC.8** From the fall of 2013 until Spring of 2014 organized a series of meetings to foster the interaction between the center (and ISR) and NAVAIR. This effort culminated with the U. Maryland College Park and NAWCAD Autonomy Research Workshop held on Feb 21st 2014. The participants held conference calls and meetings to finalize a collection of white papers that may lead to new funding programs and opportunities for the community at large.

**LC.9** Member of the scientific committee (jointly with S. Mitter (MIT), G. Kramer (TUM), M. Efros (CALTECH), G. Como (Lund U.) and B. Bernhardson (Lund U.)) of the LCCC focus period and workshop in Information and Control in Networks that was held at Lund University (Sweden), from October 17 to October 19, 2012.

**LC.10** Co-Organizer of the ConCom workshop as part of the 2009 WiOpt, Seoul, South Korea.

**LC.11** Co-Organizer of the Fifth Northeast Control Workshop: C.M.U., 2009.

**LC.12** Organizer of the Fourth Northeast Control Workshop: U. Maryland, 2008.

## IV.C. Media Contributions

### IV.C.1. Digital Media

**DM.1** "Swarms of mouse-sized robots scurry to maintain the nation's bridges. A new kind of miniature robot can crawl on the parts of bridges humans never see." [www.popsci.com](http://www.popsci.com) (September 25,2014)

**DM.2** "Robotics revolution runs deep in Maryland," [www.gazette.net](http://www.gazette.net) (October 19, 2012)

**DM.3** "Antbots to the Rescue," Pacific Standard (June 7, 2012).

**DM.4** A New NSF Grant that is joint with N. Geographic and N. Leonard (U. Princeton) was news on the "The Daily Princetonian" (Dec 13th, 2011) and UMD Diamondback (Dec 11th, 2011).

### IV.C.2. Print Media

**PM.1** "Thousands turn out for 4th annual Maryland Robotics Day," Diamond Back, October 28, 2013.