

# Nikolay A. Atanasov

## Contact Information

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Atkinson Hall #6127  
Contextual Robotics Institute  
University of California, San Diego  
9500 Gilman Drive MC 0450  
La Jolla, CA 92093

Phone: (858) 534-4105  
E-mail: [natanasov@ucsd.edu](mailto:natanasov@ucsd.edu)  
Web: [natanaso.github.io](http://natanaso.github.io)

## Academic Appointments

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**Assistant Professor** Jul. 2017 - Present  
Department of Electrical and Computer Engineering  
University of California, San Diego, CA

**Postdoctoral Researcher** Sep. 2015 - Jun. 2017  
Department of Mechanical Engineering and Applied Mechanics  
University of Pennsylvania, Philadelphia, PA  
Advisors: Vijay Kumar and George J. Pappas

## Education

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**Ph.D., Electrical and Systems Engineering** Dec. 2015  
University of Pennsylvania, Philadelphia, PA  
Thesis: *Active Information Acquisition with Mobile Robots*  
Advisors: George J. Pappas and Kostas Daniilidis  
Joseph and Rosaline Wolf Best Dissertation Award

**M.S., Electrical Engineering** Aug. 2012  
University of Pennsylvania, Philadelphia, PA

**B.S., Engineering** May 2008  
Trinity College, Hartford, CT

## Research Interests

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- Probabilistic environment representations that unify geometry, semantics, and physics; visual-inertial odometry; simultaneous localization and mapping;
- Autonomous information collection using ground and aerial robots for localization and mapping, environmental monitoring, and security and surveillance; optimal control with information theoretic objectives; model predictive control; reinforcement learning; exploration; motion planning; active perception; distributed inference and planning;

**Relevant fields:** robotics, machine learning, control theory, optimization, computer vision

## Teaching Experience

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- **Instructor**, Planning and Learning in Robotics, University of California, San Diego Spring 2019
- **Instructor**, Sensing and Estimation in Robotics, University of California, San Diego Winter 2019
- **Instructor**, Planning and Learning in Robotics, University of California, San Diego Winter 2018
- **Instructor**, Sensing and Estimation in Robotics, University of California, San Diego Fall 2017
- **Instructor**, Learning in Robotics, University of Pennsylvania Spring 2017
- **Guest Lecturer**, Nonlinear Systems and Control, University of Pennsylvania Fall 2015

- **Guest Lecturer**, Linear Systems Theory, University of Pennsylvania Fall 2011
- **Teaching Assistant**, Linear Systems Theory, University of Pennsylvania Fall 2010, Fall 2011
- **Teaching Assistant**, Calculus I, Trinity College, Hartford, CT Fall 2006, Fall 2007
- **Teaching Assistant**, Calculus II, Trinity College, Hartford, CT Spring 2006, Spring 2007
- **Teaching Assistant**, Intro to Computer Science, Trinity College, Hartford, CT Fall 2005

## Honors & Awards

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- **Best Graduate Teacher Award**, University of California, San Diego 2018  
Awarded by the Department of Electrical and Computer Engineering
- **Best Conference Paper Award** 2017  
Awarded at the IEEE International Conference on Robotics and Automation (ICRA) for the paper "Probabilistic Data Association for Semantic SLAM"
- **Joseph and Rosaline Wolf Best Ph.D. Dissertation Award**, University of Pennsylvania 2015  
Awarded by the School of Engineering and Applied Science
- **Phi Beta Kappa Society** 2008
- **President's Fellow**, Trinity College, Hartford, CT 2007 - 2008  
Awarded for outstanding work in the Engineering major
- **Thomas Holland Scholarship**, Trinity College, Hartford, CT 2006 - 2008  
Awarded for attaining the highest rank in the junior and senior classes
- **Phi Gamma Delta Teaching Fellowship**, Trinity College, Hartford, CT 2006, 2007  
Awarded for aiding the Department of Mathematics in its instructional endeavors

## Journal Articles

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- J8. R. Ivanov, N. Atanasov, M. Pajic, J. Weimer, G. J. Pappas, and I. Lee, "Continuous Estimation Using Context-Dependent Discrete Measurements," *IEEE Transactions on Automatic Control (TAC)*, vol. 64, no. 1, pp. 235–250, 2019
- J7. S. Liu, K. Mohta, N. Atanasov, and V. Kumar, "Search-based Motion Planning for Aggressive Flight in SE(3)," *IEEE Robotics and Automation Letters (RAL)*, vol. 3, no. 3, pp. 2439–2446, 2018
- J6. B. Schlotfeldt, D. Thakur, N. Atanasov, V. Kumar, and G. J. Pappas, "Anytime Planning for Decentralized Multi-Robot Active Information Gathering," *IEEE Robotics and Automation Letters (RAL)*, vol. 3, no. 2, pp. 1025–1032, 2018
- J5. K. Mohta, M. Watterson, Y. Mulgaonkar, S. Liu, C. Qu, A. Makineni, K. Saulnier, K. Sun, A. Zhu, J. Delmerico, K. Karydis, N. Atanasov, G. Loianno, D. Scaramuzza, K. Daniilidis, C. J. Taylor, and V. Kumar, "Fast, Autonomous Flight in GPS-Denied and Cluttered Environments," *Journal of Field Robotics (JFR)*, vol. 35, no. 1, pp. 101–120, 2018
- J4. N. Atanasov, M. Zhu, K. Daniilidis, and G. Pappas, "Localization from semantic observations via the matrix permanent," *The International Journal of Robotics Research (IJRR)*, vol. 35, pp. 73–99, 2015
- J3. N. Atanasov, J. Le Ny, and G. Pappas, "Distributed algorithms for stochastic source seeking with mobile robot networks," *ASME Journal of Dynamic Systems, Measurement, and Control (JDSMC)*, vol. 137, no. 3, pp. 031 011–031 011–9, 2015
- J2. N. Atanasov, B. Sankaran, J. Le Ny, G. Pappas, and K. Daniilidis, "Nonmyopic view planning for active object classification and pose estimation," *IEEE Trans. on Robotics (TRO)*, vol. 30, no. 5, pp. 1078–1090, 2014
- J1. J. Ning and N. Atanasov, "Delineation of Systolic and Diastolic Heart Murmurs via Wavelet Transform and Autoregressive Modeling," *International Journal of Bioelectromagnetism*, vol. 12, no. 3, 2010

## Conference Proceedings

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- C34. P. Paritosh, N. Atanasov, and S. Martinez, "Hypothesis Assignment and Partial Likelihood Averaging for Cooperative Estimation," in *IEEE Conference on Decision and Control (CDC)*, 2019

- C33. Q. Feng, Y. Meng, M. Shan, and N. Atanasov, "Localization and Mapping using Instance-specific Mesh Models," in *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, 2019
- C32. S. Guo and N. Atanasov, "Information Filter Occupancy Mapping using Decomposable Radial Kernels," in *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, 2019
- C31. B. Schlotfeldt, N. Atanasov, and G. J. Pappas, "Maximum Information Bounds for Planning Active Sensing Trajectories," in *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, 2019
- C30. Y. Kantaros, B. Schlotfeldt, N. Atanasov, and G. J. Pappas, "Asymptotically Optimal Planning for Non-Myopic Multi-Robot Information Gathering," in *Robotics: Science and Systems (RSS)*, 2019
- C29. P. Tecchio, N. Atanasov, S. Shahrampour, and G. J. Pappas, "N-Dimensional Distributed Network Localization With Noisy Range Measurements and Arbitrary Anchor Placement," in *American Control Conference (ACC)*, 2019
- C28. M. Ostertag, N. Atanasov, and T. Rosing, "Robust Velocity Control for Minimum Steady State Uncertainty in Persistent Monitoring Applications," in *American Control Conference (ACC)*, 2019
- C27. N. Atanasov, S. Bowman, K. Daniilidis, and G. Pappas, "A Unifying View of Geometry, Semantics, and Data Association in SLAM," in *International Joint Conference on Artificial Intelligence (IJCAI)*, 2018
- C26. A. Khan, C. Zhang, N. Atanasov, K. Karydis, V. Kumar, and D. D. Lee, "Memory Augmented Control Networks," in *International Conference on Learning Representations (ICLR)*, 2018
- C25. S. Chen, K. Saulnier, N. Atanasov, D. D. Lee, V. Kumar, G. J. Pappas, and M. Morari, "Approximating explicit model predictive control using constrained neural networks," in *American Control Conference (ACC)*, 2018
- C24. K. Sun, K. Saulnier, N. Atanasov, G. Pappas, and V. Kumar, "Dense 3-D Mapping with Spatial Correlation via Gaussian Filtering," in *American Control Conference (ACC)*, 2018
- C23. S. Liu, N. Atanasov, K. Mohta, and V. Kumar, "Search-based Motion Planning for Quadrotors using Linear Quadratic Minimum Time Control," in *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, 2017
- C22. M. Zhang, N. Atanasov, and K. Daniilidis, "Active End-Effector Pose Selection for Tactile Object Recognition through Monte Carlo Tree Search," in *IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, 2017
- C21. A. Zhu, N. Atanasov, and K. Daniilidis, "Event-based Visual Inertial Odometry," in *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, 2017
- C20. A. Zhu, N. Atanasov, and K. Daniilidis, "Event-based Feature Tracking with Probabilistic Data Association," in *IEEE Int. Conf. on Robotics and Automation (ICRA)*, 2017
- C19. S. Bowman, N. Atanasov, K. Daniilidis, and G. Pappas, "Probabilistic Data Association for Semantic SLAM," in *IEEE Int. Conf. on Robotics and Automation (ICRA)*, 2017 (**Best Paper Award**)
- C18. S. Chen, N. Atanasov, A. K. amd K. Karydis, D. D. Lee, and V. Kumar, "Neural Network Memory Architectures for Autonomous Robot Navigation," in *Multi-disciplinary Conference on Reinforcement Learning and Decision Making (RLDM)*, 2017
- C17. V. Tzoumas, N. Atanasov, A. Jadbabaie, and G. Pappas, "Scheduling Nonlinear Sensors for Stochastic Process Estimation," in *American Control Conference (ACC)*, 2017
- C16. C. Di Franco, A. Prorok, N. Atanasov, B. Kempke, P. Dutta, V. Kumar, and G. Pappas, "Calibration-Free Network Localization using Non-Line-of-Sight Ultra-Wideband Measurements," in *ACM/IEEE Int. Conf. on Information Processing in Sensor Networks (IPSN)*, 2017
- C15. J. Fu, N. Atanasov, U. Topcu, and G. Pappas, "Optimal Temporal Logic Planning in Probabilistic Semantic Maps," in *IEEE Int. Conf. on Robotics and Automation (ICRA)*, 2016
- C14. R. Ivanov, N. Atanasov, J. Weimer, M. Pajic, A. Simpao, M. Rehman, G. Pappas, and I. Lee, "Estimation of Blood Oxygen Content Using Context-Aware Filtering," in *ACM/IEEE Int. Conf. on Cyber-Physical Systems (ICCPs)*, 2016
- C13. R. Ivanov, N. Atanasov, M. Pajic, G. Pappas, and I. Lee, "Robust Estimation Using Context-Aware Filtering," in *Allerton Conference on Communication, Control, and Computing*, 2015
- C12. N. Atanasov, J. Le Ny, K. Daniilidis, and G. Pappas, "Decentralized active information acquisition: Theory and application to multi-robot slam," in *IEEE Int. Conf. on Robotics and Automation (ICRA)*,

2015, pp. 4775–4782

- C11. N. Atanasov, R. Tron, V. Preciado, and G. Pappas, “Joint estimation and localization in sensor networks,” in *IEEE Conf. on Decision and Control (CDC)*, 2014, pp. 6875–6882
- C10. M. Zhu, N. Atanasov, G. Pappas, and K. Daniilidis, “Active deformable part models inference,” in *European Conf. on Computer Vision (ECCV)*, vol. 8695, 2014, pp. 281–296
- C9. N. Atanasov, M. Zhu, K. Daniilidis, and G. Pappas, “Semantic Localization via the Matrix Permanent,” in *Robotics: Science and Systems (RSS)*, 2014
- C8. N. Atanasov, J. Le Ny, K. Daniilidis, and G. Pappas, “Information acquisition with sensing robots: Algorithms and error bounds,” in *IEEE Int. Conf. on Robotics and Automation (ICRA)*, 2014, pp. 6447–6454
- C7. N. Atanasov, B. Sankaran, J. Le Ny, T. Koletschka, G. Pappas, and K. Daniilidis, “Hypothesis testing framework for active object detection,” in *IEEE Int. Conf. on Robotics and Automation (ICRA)*, 2013, pp. 4216–4222
- C6. N. Atanasov, J. Le Ny, N. Michael, and G. Pappas, “Stochastic source seeking in complex environments,” in *IEEE Int. Conf. on Robotics and Automation (ICRA)*, 2012, pp. 3013–3018
- C5. T. Ning, J. Ning, N. Atanasov, and K. Hsieh, “A Fast Heart Sounds Detection and Heart Murmur Classification Algorithm,” in *IEEE Int. Conf. on Signal Processing (ICSP)*, vol. 3, 2012
- C4. J. Ning, N. Atanasov, and T. Ning, “Quantitative Analysis of Heart Sounds and Systolic Heart Murmurs Using Wavelet Transform and AR Modeling,” in *IEEE Int. Conf. on Engineering in Medicine and Biology (EMBC)*, 2009
- C3. N. Atanasov and T. Ning, “Isolation of Systolic Heart Murmurs Using Wavelet Transform and Energy Index,” in *IEEE Congress on Image and Signal Processing (CISP)*, 2008
- C2. N. Atanasov and T. Ning, “Quantitative Delineation of Heart Murmurs Using Features Derived from Autoregressive Modeling,” in *IEEE Northeast Bioengineering Conference (NEBC)*, 2007
- C1. T. Ning, S. Bhandari, and N. Atanasov, “Restoration of Multi-channel Spectral Estimation Affected by Sampling Jitters,” in *IEEE Northeast Bioengineering Conference (NEBC)*, 2007

## Workshop Papers

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- W9. T. Wang and N. Atanasov, “Learning Navigation Costs from Demonstration via Differentiable Planning,” in *South California Robotics Symposium*, 2019
- W8. Q. Feng, Y. Meng, M. Shan, and N. Atanasov, “Localization and Mapping using Instance-specific Mesh Models,” in *South California Robotics Symposium*, 2019
- W7. P. Paritosh, N. Atanasov, and S. Martinez, “Distributed Estimation Algorithms on Optimally Assigned Hypotheses,” in *South California Robotics Symposium*, 2019
- W6. Q. Feng, Y. Meng, and N. Atanasov, “Dense Spatial Segmentation from Sparse Semantic Information,” in *Workshop on Learning and Inference in Robotics at RSS*, 2018
- W5. B. Schlotfeldt, N. Atanasov, and G. J. Pappas, “Adversarial Information Acquisition,” in *Workshop on Adversarial Robotics at RSS*, 2018
- W4. M. Shan and N. Atanasov, “A Spatiotemporal Model with Visual Attention for Video Classification,” in *Workshop on Articulated Model Tracking at RSS*, 2017
- W3. R. Ivanov, N. Atanasov, M. Pajic, I. Lee, and G. Pappas, “Robust Localization Using Context-Aware Filtering,” in *Workshop on Multi-view Geometry in Robotics at RSS*, 2015
- W2. M. Lauri, N. Atanasov, G. Pappas, and R. Ritala, “Active Object Recognition via Monte Carlo Tree Search,” in *Workshop on Beyond Geometric Constraints at ICRA*, 2015
- W1. M. Zhu, N. Atanasov, G. Pappas, and K. Daniilidis, “Active Deformable Part Models Inference,” in *Workshop on Parts and Attributes at ECCV*, 2014

## Patents

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1. A. Zhu, N. Atanasov, K. Daniilidis, “Event-based Feature Tracking,” PCT/US2018/018196 (pending)

2. S. Bowman, N. Atanasov, K. Daniilidis, G. J. Pappas, "Probabilistic Data Association for Simultaneous Localization and Mapping," PCT/US2018/178324 (pending)

## Seminars and Talks

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1. "Introduction to Robot Localization and Mapping," UCSD Splash High-School Program, Apr. 2019.
2. "Autonomous Exploration and Mapping using Visual, Inertial, and Semantic Information," DCL Seminar Series, Georgia Institute of Technology, Atlanta, GA, Apr. 2019.
3. "Autonomous Exploration and Mapping using Visual, Inertial, and Semantic Information," Lockheed Martin Robotics Seminar Series, University of Maryland, College Park, MD, Mar. 2019.
4. Workshop on "Intelligent Systems with Real-Time Learning, Knowledge Bases, and Information Retrieval," University of Texas, Austin, TX, Jan. 2019.
5. "Active and Adversarial Information Acquisition," Workshop on "Adversarial Robotics," Robotics: Science and Systems (RSS) Conference, Pittsburgh, PA, June 2018.
6. "Introduction to Robot Localization and Mapping," UCSD Splash High-School Program, May 2018.
7. "Artificial Intelligence: A Path Forward," panel at the West Conference sponsored by AFCEA International and the U.S. Naval Institute, Feb. 2018.
8. Panel on Advanced Robotic Imaging, The Indus Entrepreneurs, Oct. 2017.
9. "Semantic Mapping and Mission Planning in Robotics," Machine Learning and Formal Methods Seminar, Dagstuhl, Aug. 2017.
10. "Using Semantic Information in Robot Localization, Mapping, and Mission Planning," ATA Engineering, Aug. 2017.
11. "Introduction to Robotics," COSMOS High-School Summer Program, Jul. 2017.
12. "Metric-Semantic SLAM with Probabilistic Data Association," Artificial Intelligence Think Tank, hosted by the Gordon Engineering Leadership Center, Jun. 2017.
13. "Acquiring Metric and Semantic Information Using Autonomous Robots" at UC San Diego, Georgia Tech, MIT, University of Minnesota, UT Austin, Duke, Princeton, NYU, Stanford, ETH Zurich, BU, CMU, UC Berkeley, Feb.-Apr. 2016.
14. "Active Information Acquisition with Mobile Robots" at UC Berkeley, UCLA, University of Southern California, and California Institute of Technology, Feb. 2015.
15. "Distributed Information Acquisition with Mobile Sensors," Workshop on Humans and Sensing in Cyber-Physical Systems, Robotics: Science and Systems (RSS) Conference, Berkeley, CA, July 2014.

## Research Group

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### Postdoctoral Researchers:

- Vikas Dhiman (Ph.D., UMich), co-advised with Henrik Christensen

### Ph.D. Students:

- Mo Shan (ECE UCSD)
- Tianyu Wang (ECE UCSD)
- Qiaojun Feng (ECE UCSD)
- Zhichao Li (ECE UCSD)
- Thai Phu Duong (ECE UCSD)
- Arash Asgharivaskasi (ECE UCSD)
- Ehsan Zobeidi (ECE UCSD)
- Parth Paritosh (MAE UCSD), co-advised with Sonia Martinez
- Carlos Nieto-Granda (ECE UCSD), co-advised with Henrik Christensen

### M.S. and Undergraduate Students:

- Ibrahim Akbar (ECE UCSD)
- Alexander Khoury (ECE UCSD)

- Kun Chen (ECE UCSD)
- Sutej Kulgod (ECE UCSD)
- Jinzhao Li (ECE UCSD)
- Bjorn Johnson (ECE UCSD)

### Alumni:

- Ibrahim Akbar, M.S., ECE, UCSD, 2019
- Harshini Rajachander, M.S., ECE, UCSD, 2019
- Yue Meng, M.S., ECE, UCSD, 2019
- Siwei Guo, M.S., ECE, UCSD, 2018
- Youxing Wang, M.S., ECE, UCSD, 2018
- Chang Han, UCSD, Summer 2019 (SRIP)
- Xinyang Yu, UCSD, Summer 2019 (SRIP)
- Pou-Chun Kung, National Sun Yat-sen University, Summer 2019 (ISRP)
- Daniel Sandoval, Summer 2019 (ENLACE)
- Matthew Taber, Summer 2019 (STARS)
- Jialiang Liu, UCSD, Summer 2018 (SRIP)
- Darshan Bulsara, UC Merced, Summer 2018 (STARS)
- Mariana Hernández, Instituto Tecnológico Autónomo de México, Summer 2018 (ENLACE)
- Athena Tsai, National Sun Yat-sen University, Summer 2018 (ISRP)
- Richard Du, UCSD, Spring 2018
- Pengfei Li, Zhejiang University, Summer 2017 (ISRP)

## Professional Activities

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### Journal and Conference Organization:

1. Associate Editor, International Journal of Robotics Research, Special Issue on RSS 2018.
2. Publications Chair, Robotics: Science and Systems (RSS), 2018.
3. Associate Editor, IEEE Int. Conf. on Robotics and Automation (ICRA), 2017, 2018, 2019.

### Workshop Organization:

1. Program committee member, Workshop on “Algorithms and Architectures for Learning in-the-Loop Systems in Autonomous Flight,” IEEE Int. Conf. on Robotics and Automation (ICRA), Montreal, Canada, May 2019.
2. Program committee member, “Work-in-Progress Abstracts, Demos, and Posters,” International Conference on Cyber-Physical Systems (ICCPS), Montreal, Canada, April, 2019.
3. Co-organizer, Workshop on “Perception, Inference, and Learning for Joint Semantic, Geometric, and Physical Understanding,” IEEE Int. Conf. on Robotics and Automation (ICRA), Brisbane, Australia, May 2018.
4. Program committee member, Workshop on “Informative Path Planning and Adaptive Sampling,” IEEE Int. Conf. on Robotics and Automation (ICRA), Brisbane, Australia, May 2018.
5. Co-organizer, Workshop on “Learning Perception and Control for Autonomous Flight: Safety, Memory, and Efficiency,” Robotics: Science and Systems (RSS), Cambridge, MA, USA, July 2017.
6. Co-organizer, Workshop on “Robot-Environment Interaction for Perception and Manipulation,” Robotics: Science and Systems (RSS) Conference, Ann Arbor, MI, USA, June 2016.

### Government Activities:

1. NSF Panelist: CISE/CPS 2016, 2017, 2018, 2019
2. Workshop on Foundations of Intelligent Sensing, Action and Learning sponsored by the Basic Research Office of the Assistant Secretary of Defense for Research and Engineering, Philadelphia, PA, October 2015.

- NSF Workshop on Learning, Perception and Control, Arlington, VA, August 2015.

### Reviewer:

- **Journals:** IEEE Transactions on Robotics; International Journal of Robotics Research; Elsevier Robotics and Autonomous Systems; Springer Autonomous Robots; IEEE Sensors Journal; IEEE Robotics and Automation Magazine; IEEE Robotics and Automation Letters; IEEE Trans. on Control of Network Systems; ASME Journal of Dynamic Systems, Measurement, and Control; Elsevier Computer Vision and Image Understanding; IEEE Trans. on Information Theory; Springer Journal of Intelligent and Robotic Systems; IEEE Trans. on Signal Processing; IEEE Trans. on Aerospace and Electronic Systems; IEEE Trans. on Signal and Information Processing over Networks
- **Conferences:** Robotics: Science and Systems (RSS), IEEE International Conference on Robotics and Automation (ICRA), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Conference on Neural Information Processing Systems (NeurIPS), IEEE Conference on Computer Vision and Pattern Recognition (CVPR), European Conference on Computer Vision (ECCV), IEEE Conference on Decision and Control (CDC), American Control Conference (ACC), International Conference on Advanced Robotics (ICAR), IFAC Conference on Analysis and Design of Hybrid Systems, IEEE International Conference on Automation Science and Engineering, IEEE Multi-conference on Systems and Control, IEEE/SICE International Symposium on System Integration

### Society Membership:

IEEE, Robotics and Automation Society	2014 - Present
IEEE, Member	2007 - Present
Phi Beta Kappa Society	2008 - Present
IEEE, Communication Society	2012 - 2013
IEEE, Engineering in Medicine and Biology Society	2007 - 2008
American Society of Mechanical Engineers (ASME)	2007 - 2008

### University Service:

- ECE Graduate Recruiting and Admissions Committee, 2018, 2019.
- ECE MS Comprehensive Exam Committee, 2018, 2019.

### Ph.D. Committees:

- Yi Li, ECE PhD Qualifying Exam (Sep. 2019), UCSD
- John Ho, ECE PhD Preliminary Exam (May 2019), UCSD
- Zhichao Li, ECE PhD Preliminary Exam (Apr. 2019), UCSD
- Mo Shan, ECE PhD Preliminary Exam (Apr. 2019), UCSD
- Yunsheng Li, ECE PhD Qualifying Exam (Apr. 2019), UCSD
- Bo Liu, ECE PhD Qualifying Exam (Apr. 2019), UCSD
- Pedro Morgado, ECE PhD Qualifying Exam (Mar. 2019), UCSD
- Jacob Johnson, ECE PhD Preliminary Exam (Feb. 2019), UCSD
- Carlos Nieto-Granda, ECE PhD Qualifying Exam (Jan. 2019), UCSD
- Ahmed Qureshi, ECE Preliminary Exam (Jan 2019), UCSD
- Pedro P. V. Tecchio, ESE PhD Proposal (Dec. 2018) and Thesis Committee (Jul. 2019), UPenn
- Kartik Mohta, ESE PhD Proposal (Aug. 2018) and Thesis Committee (Nov. 2018), UPenn
- Aaron Ma, MAE PhD Senate Exam (Nov. 2018), UCSD
- Sikang Liu, MEAM PhD Proposal (May 2018) and Thesis Committee (Oct. 2018), UPenn
- Michael Ostertag, ECE Preliminary Exam (Oct. 2018), UCSD
- Dylan Drotman, MAE PhD Senate Exam (Oct. 2018), UCSD
- Nachiket Deo, ECE PhD Qualifying Exam (Sep. 2018), UCSD
- Greame Best, AMME PhD Thesis Committee (Jul. 2018), University of Sydney
- Huan Yu, MAE PhD Senate Exam (Jun. 2018) and Thesis Committee (Jun. 2019), UCSD

20. Tianyu Wang, ECE PhD Preliminary Exam (May 2018), UCSD
21. Nikhil Das, ECE PhD Qualifying Exam (Nov. 2017), UCSD
22. Stephen Chen, MAE PhD Senate Exam (Jul. 2017) and Thesis Committee (Aug. 2019), UCSD
23. Daniel Yang, MAE PhD Senate Exam (Dec. 2016), UCSD

**M.S. Committees:**

1. Alexander Khoury, ECE M.S. Thesis Committee (Aug. 2019), UCSD
2. Ibrahim Akbar, ECE M.S. Thesis Committee (Aug. 2019), UCSD
3. Weiqi Xu, CSE M.S. Thesis Committee (May 2019), UCSD
4. Brian Wilcox, ECE M.S. Thesis Committee (Mar. 2019), UCSD
5. Aravind Seetharaman, ECE M.S. Thesis Committee (Mar. 2019), UCSD
6. Andrew Saad Abd El-Messih, ECE M.S. Thesis Committee (Dec. 2018), UCSD
7. Nicholas Ha, ECE M.S. Thesis Committee (Nov. 2018), UCSD
8. Mayur Bency, ECE M.S. Thesis Committee (Jun. 2018), UCSD
9. Kenny Chen, ECE M.S. Thesis Committee (Jun. 2018), UCSD
10. Francis Joseph, MAE M.S. Thesis Committee (May 2018), UCSD
11. Matthew Epperson, ECE M.S. Thesis Committee (Mar. 2018), UCSD