

Curriculum Vitae
Feitian Zhang

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(i) Professional Preparation

Harbin Institute of Technology, Harbin, China, Automatic Control, B.S., 2007
Harbin Institute of Technology, Harbin, China, Automatic Control, M.S., 2009
Michigan State University, East Lansing, U.S., Electrical Engineering; Ph.D., 2014
University of Maryland, College Park, MD, U.S., Aerospace Engineering, Postdoc, 2014 – 2016

(ii) Appointments

2021 – Present, Associate Professor, Department of Advanced Manufacturing and Robotics,
College of Engineering, Peking University
2016 – 2021, Assistant Professor, ECE Department, George Mason University
2019, Summer Fellow, ONR Summer Faculty Research Program, NSWC Carderock Division
2014 – 2016, Postdoctoral Research Associate, Aerospace Engineering, University of Maryland

(iii) Research Interests

Bioinspired Robotics, Control Systems, Artificial Intelligence, Underwater Vehicles, and Aerial Vehicles

(iv) Honors and Awards

ONR Summer Faculty Research Fellowship, Office of Naval Research, 2019
Jeffress Trust Award in Interdisciplinary Research, Jeffress Trust, 2019
SCEEE Research Initiation Award, Southeastern Center for Electrical Engineering Education, 2018
GMU Multidisciplinary Research Award, George Mason University, 2017
Second Place, Engineering Graduate Research Symposium, Michigan State University, 2014
Graduate School Dissertation Completion Fellowship, Michigan State University, 2014
Special Scholarship of Harbin Institute of Technology (top 1), 2005
Scholarship of Chinese Academy of Sciences at Harbin Institute of Technology (top 1), 2004

(v) Teaching

08612680, Topics in Nonlinear Systems, PKU (S 2022, S 2023)
00334330, Signals and Systems, PKU (F 2021, F 2022)
ECE 421, Classical Systems and Control Theory, GMU (S & F 2019, S & F 2020)
ECE 521, Linear Systems and Control, GMU (S & F 2017, S & F 2018, S 2020)
ECE 422, Digital Control Systems, GMU (S 2018)
ECE 627, Adaptive Control, GMU (F 2018)
ECE 492/493 (Team Advisor), Senior Design, GMU (2016, 2017, 2018, 2019, 2020)
BENG 492/493 (Team Advisor), Senior Design, GMU (2016, 2017, 2018, 2019)

(vi) Publications**Books**

1. G. Cook and F. Zhang, *Mobile Robots: Navigation, Control and Sensing, Surface Robots and AUVs*, Wiley-IEEE Press, 2020

Journal Articles

1. S. K. Rajendran and F. Zhang, “Design, Modeling, and Visual Learning-based Control of Soft Robotic Fish Driven by Super-coiled Polymers,” *Frontiers in Robotics and AI*, 8(Soft Robotics):809427, 2022
2. S. K. Rajendran, Q. Wei, and F. Zhang, “Two Degree-of-freedom Robotic Eye: Design, Modeling, and Learning-based Control in Foveation and Smooth Pursuit,” *Bioinspiration & Biomimetics*, 16(4):046022, 2021
3. F. Dang, S. Nasreen, and F. Zhang, “DMD-Based Background Flow Sensing for AUVs in Flow Pattern Changing Environments,” *IEEE Robotics and Automation Letters*, vol. 6, no. 3, pp. 5207-5214, 2021
4. F. Dang and F. Zhang, “Distributed Flow Estimation for Autonomous Underwater Robots Using Proper Orthogonal Decomposition-based Model Reduction,” *Journal of Dynamic Systems, Measurement, and Control*, Special issue on Unmanned Mobile Systems, 141.7 (2019): 071010
5. F. Zhang, O. Ennasr, and X. Tan, “Gliding Robotic Fish: An Underwater Sensing Platform and Its Spiral-Based Tracking in 3D Space,” *Marine Technology Society Journal*, vol. 51, no. 5, pp. 71–78, 2017
6. F. Zhang, F. Lagor, H. Lei, X. Tan and D. Paley, “Robotic Fish: Flow-relative Control Behaviors Using Distributed Flow Sensing,” *ASME Dynamic Systems and Control Magazine* (insert of Mechanical Engineering Magazine), 138(3): S2–S5, March 2016. Special Issue on Bio-inspired Systems
7. F. Zhang, O. Ennasr, E. Litchman, and X. Tan, “Autonomous sampling of water columns using gliding robotic fish: Algorithms and harmful algae-sampling experiments,” *IEEE Systems Journal*, Special issue on Cyber-innovated Environmental Sensing, Monitoring and Modeling for Sustainability, vol. 10, no. 3, pp. 1271–1281, 2016
8. F. Zhang, F. Lagor, D. Yeo, P. Washington, and D. Paley, “Distributed Flow Sensing for Closed-loop Speed Control of a Flexible Fish Robot,” *Bioinspiration & Biomimetics*, Special issue on Bio-inspired Soft Robotics, 10(6): 065001, 2015
9. F. Zhang and X. Tan, “Passivity-based stabilization of underwater gliders with a control surface,” *Journal of Dynamic Systems, Measurement, and Control*, 137.6 (2015): 061006
10. F. Zhang, F. Zhang, X. Tan, “Tail-enabled spiraling maneuver for gliding robotic fish,” *Journal of Dynamic Systems, Measurement, and Control*, vol. 136, no. 4, 041028 (8 pp), 2014
11. F. Zhang, J. Thon, C. Thon and X. Tan, “Miniature underwater glider: Design and experimental results,” *IEEE/ASME Transactions on Mechatronics*, vol. 19, no. 1, pp. 394–399, 2014

Conference Articles

1. J. Wang, T. Shen, D. Zhao, and F. Zhang, “Flow Sensing-Based Underwater Target Detection Using Distributed Mobile Sensors,” *the 61st IEEE Conference on Decision and Control*, Cancun, Mexico, pp.2681-2687, 2022
2. S. K. Rajendran, Q. Wei, N. Yao, and F. Zhang, “Observability Analysis and Reduced-Order Observer Design for a Super-Coiled Polymer-Driven Robotic Eye,” *the 61st IEEE Conference on Decision and Control*, Cancun, Mexico, pp.1385-1391, 2022

3. S. K. Rajendran, Q. Wei, N. Yao, and F. Zhang, "Modeling and Learning-Based Control for Super-Coiled Polymer-Driven Robotic Eye," *2022 American Control Conference (ACC)*, Atlanta, GA, Poster Paper, 2022
4. F. Dang, S. Nasreen, and F. Zhang, "A Novel FFT-Assisted Background Flow Sensing Framework for Autonomous Underwater Vehicles In Dynamic Environment with Changing Flow Patterns," *IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, Toronto, ON, Canada (virtual), pp.336–341, 2020
5. F. Dang, S. Nasreen, and F. Zhang, "Background Flow Sensing for Autonomous Underwater Vehicles Using Model Reduction with Dynamic Mode Decomposition," *IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*, Boston, MA (virtual), pp.125–131, 2020
6. F. Dang and F. Zhang, "Distributed Flow Estimation for Autonomous Underwater Robots Using POD-based Model Reduction," *the 57rd IEEE Conference on Decision and Control (CDC)*, Miami Beach, FL, pp. 4453–4458, 2018
7. S. Rajendran, Q. Wei, and F. Zhang, "Foveation Control of a Robotic Eye Using Deep Reinforcement Learning," *ASME Dynamic Systems and Control Conference*, Atlanta, GA, Paper DSCC2018-9209 (7 pp), 2018
8. S. Rajendran and F. Zhang, "Learning Based Speed Control of Soft Robotic Fish," *ASME Dynamic Systems and Control Conference*, Atlanta, GA, Paper DSCC2018-8977 (7 pp), 2018
9. F. Dang and F. Zhang, "DMD-Based Distributed Flow Sensing For Bio-Inspired Autonomous Underwater Robots," *ASME Dynamic Systems and Control Conference*, Atlanta, GA, Paper DSCC2018-9113 (8 pp), 2018
10. S. Rajendran and F. Zhang, "Developing A Novel Robotic Fish With Antagonistic Artificial Muscle Actuators," *2017 ASME Dynamic Systems and Control Conference (DSCC)*, Tysons Corner, VA, Paper DSCC2017-5380 (7 pp), 2017
11. F. Dang and F. Zhang, "Identification of Hydrodynamic Coefficients of a Robotic Fish Using Improved Extended Kalman Filter," *2017 ASME Dynamic Systems and Control Conference (DSCC)*, Tysons Corner, VA, Paper DSCC2017-5385 (9 pp), 2017
12. F. Zhang, P. Washington, and D. Paley, "A Flexible, Reaction-Wheel-Driven Fish Robot: Flow Sensing and Flow-Relative Control," *Proceedings of the 2016 American Control Conference (ACC)*, Boston, MA, pp. 1221–1226, 2016
13. F. Zhang, F. Lagor, D. Yeo, P. Washington, and D. Paley, "Distributed flow sensing using Bayesian estimation for a flexible fish robot," *2015 ASME Dynamic Systems and Control Conference (DSCC)*, Columbus, OH, Paper DSCC2015-9732 (10 pp), 2015
14. F. Zhang, O. Ennasr, E. Litchman, and X. Tan, "Autonomous sampling of water columns using gliding robotic fish: Control algorithms and field experiments," *Proceedings of the 2015 IEEE Conference on Robotics and Automation (ICRA)*, Seattle, WA, pp. 517–522, 2015
15. F. Zhang and X. Tan, "Three-dimensional spiral tracking control for gliding robotic fish," *Proceedings of the 53rd IEEE Conference on Decision and Control (CDC)*, Los Angeles, CA, pp. 5340–5345, 2014
16. F. Zhang, J. Wang, J. Thon, C. Thon, E. Litchman, and X. Tan, "Gliding robotic fish for mobile sampling of aquatic environments," [Invited], *Proceedings of 11th IEEE International Conference on Networking, Sensing and Control (ICNSC)*, Miami, FL, pp. 167–172, 2014
17. F. Zhang and X. Tan, "Nonlinear observer design for stabilization of gliding robotic fish," *Proceedings of the 2014 American Control Conference (ACC)*, Portland, OR, pp. 4175–4720, 2014
18. F. Zhang and X. Tan, "Gliding robotic fish and its tail-enabled yaw motion stabilization using sliding mode control," *Proceedings of the 2013 ASME Dynamic Systems and Control Conference (DSCC)*, Palo Alto, CA, Paper DSCC2013-4015 (10 pp), 2013
19. B. Tian, F. Zhang, and X. Tan, "Design and development of an LED-based optical communication sys-

- tem for underwater autonomous robots,” *Proceedings of the IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*, Wollongong, Australia, 1558–1563, 2013
20. F. Zhang, F. Zhang, and X. Tan, “Steady spiraling motion of gliding robotic fish,” *Proceedings of the 2012 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Vilamoura Algarve, Portugal, pp. 1754–1759, 2012
 21. F. Zhang, X. Tan, and H. K. Khalil, “Passivity-based controller design for stabilization of underwater gliders,” *Proceedings of the 2012 American Control Conference (ACC)*, Montreal, Canada, pp. 5408–5413, 2012
 22. F. Zhang, J. Thon, C. Thon, and X. Tan, “Miniature underwater glider: Design, modeling, and experimental results,” *Proceedings of the 2012 IEEE International Conference on Robotics and Automation (ICRA)*, St. Paul, MN, pp. 4904–4910, 2012
 23. A. T. Abdulsadda, F. Zhang, and X. Tan, “Localization of source with unknown amplitude using IPMC sensor arrays,” Y. Bar-Cohen & F. Carpi, editors, *Electroactive Polymer Actuators and Devices (EAPAD) XIII, Proc. of SPIE*, vol. 7976, pp. 797627: 1–11, 2011

(vii) Patent

1. X. Tan, F. Zhang, J. Wang, J. Thon, “Gliding robotic fish navigation and propulsion,” US Patent 9,718,523 B2, issued on August 1, 2017; and the divisional US Patent 10,589,829 B2, issued on March 17, 2020

(viii) Reviewer for Publications

1. IEEE Transactions on Robotics
2. IEEE/ASME Transactions on Mechatronics
3. IEEE Transactions on Control of Network Systems
4. IEEE Transactions on Systems, Man, and Cybernetics: Systems
5. IEEE Transactions on Industrial Electronics
6. IEEE Robotics and Automation Letters
7. Journal of Guidance, Control, and Dynamics
8. Bioinspiration and Biomimetics
9. IEEE Journal of Oceanic Engineering
10. IEEE Robotics and Automation Magazine
11. Ocean Engineering
12. Marine Technology Society Journal
13. Asian Journal of Control
14. International Journal of Intelligent Robotics and Applications
15. Robotics and Autonomous Systems
16. Neural Computing and Applications
17. Journal of Marine Science and Application
18. Robotics and Biomimetics
19. Mathematical Problems in Engineering
20. Journal of Hydrodynamics
21. Defense Technology
22. Frontiers of Information Technology & Electronic Engineering
23. IEEE International Conference on Robotics and Automation (ICRA)
24. American Control Conference (ACC)
25. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)
26. IEEE Conference on Decision and Control (CDC)

27. IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)
28. IEEE International Conference on Automation Science and Engineering (CASE)
29. IEEE Multi-conference on Systems and Control (MSC)
30. ASME Dynamic Systems and Control Conference (DSCC)
31. IEEE International Conference on Soft Robotics (RoboSoft)
32. Distributed Autonomous Robotic Systems (DARS)
33. IEEE-RAS International Conference on Humanoid Robotics (Humanoids)
34. World Congress on Intelligent Control and Automation (WCICA)
35. International Conference on Ubiquitous Robots (UR)

(ix) Reviewer for Proposal Programs

1. Panelist, National Science Foundation (2017, 2018, 2019, 2020)

(x) Media Coverage

1. Mason Engineering students and faculty compete at 99+ Luftballons competition, Mason VSE News, by Ryley McGinnis, 1/8/2021
2. Mason bioengineering grads invent device to improve brain and spinal surgery, Mason VSE News, by John Hollis, 06/27/2019
3. A New Fish in the Sea: Engineers Create Swimming Robotic Fish, Mason VSE News, by Nanci Hellmich, 12/03/2018
4. Robofish GRACE takes a road trip, MSU Today, Faculty Voice: Xiaobo Tan, 07/26/2013
5. Submersible robotic fishoplane can swim for hundreds of kilometers, IEEE Spectrum, by Evan Ackerman, 01/17/2013
6. Robofish GRACE glides with the greatest of ease, MSU Today, by Tom Oswald, 01/14/2013
7. Robofish can glide (almost) forever, NBC News, by John Roach, 01/15/2013
8. Robotic fish search water for pollutants, Bloomberg TV and Planet Forward, 06/04/2012

(xi) Advising

Ph.D. Students

1. Mingyang Yang, Peking University, 2022–Present
2. Lu Yue, Robotics, Peking University, 2022–Present
3. Liuyang Wang, Robotics, Peking University, 2022–Present
4. Hao Cheng, Robotics, Peking University, 2021–Present
5. Jun Wang, Robotics, Peking University, 2021–Present
6. Sunil Rajendran, Electrical Engineering, George Mason University, 2018–2022
Dissertation: Super Coiled Polymer-Driven Bio-Inspired Robots: Design, Modeling, and Learning-Based Control
7. Fengying Dang, Electrical Engineering, George Mason University, 2017–2021
Dissertation: Flow Sensing Based Environmental Perception of Autonomous Underwater Robots
8. Joseph Prince Mathew, Electrical Engineering, George Mason University, 2018–2021 (co-advised)
9. Dinesh Kumar Karri, Electrical Engineering, George Mason University, 2018–2021 (co-advised)

M.S. Students

1. Shiwei Lian, Mechanical Engineering, Peking University, 2022–Present
2. Zeyu Sha, Mechanical Engineering, Peking University, 2022–Present
3. Yuchi Ma, Mechanical Engineering, Peking University, 2021 (co-advised)
4. Huaitong Song, Mechanical Engineering, Peking University, 2021 (co-advised)

5. Guohua Sun, Electrical Engineering, George Mason University, 2020
6. Nicholas Zempolish, Computer Science, George Mason University, 2019–2021
7. Snehashis Paul, Electrical Engineering, George Mason University, 2019
8. Qingyang Dai, Electrical Engineering, George Mason University, 2018–2021
9. Joseph Prince Mathew, Electrical Engineering, George Mason University, 2018–2019
10. Dinesh Kumar Karri, Electrical Engineering, George Mason University, 2018–2019
11. Fengying Dang, Electrical Engineering, George Mason University, 2017–2018
12. Sunil Rajendran, Electrical Engineering, George Mason University, 2016–2018
13. Vishakha Goyal, Robotics, University of Maryland, 2015–2016

Undergraduate Students

1. Yifei Tian, Robotics Engineering, Peking University, 2022–Present
2. Jiyue Tao, Robotics Engineering, Peking University, 2022–Present
3. Yunsong Zhang, Robotics Engineering, Peking University, 2022–Present
4. Yongjian Zhu, Robotics Engineering, Peking University, 2022–Present
5. Xinyu Zhou, Robotics Engineering, Peking University, 2021–Present
6. Arash Touhidi, Electrical Engineering, George Mason University, 2019–2021
7. Pablo B. Lamarca, Exchange Student, Universidad Carlos III De Madrid (UC3M), Spain, 2019–2020
8. Barak Widawsky, Computer Engineering, George Mason University, 2019–2020
9. Avery C. Austin, Mechanical Engineering, George Mason University, 2019–2020
10. Yizhe Wang, Electrical Engineering, George Mason University, 2019
11. Vu Luu, Computer Engineering, George Mason University, 2019
12. Abdullah Mohammad, Computer Engineering, George Mason University, 2019
13. Francis Ahenkora, Computer Engineering, George Mason University, 2019
14. Alberto Herranz, Exchange Student, Universidad Carlos III De Madrid (UC3M), Spain, 2018–2019
15. Simran Chawla, Computer Science, University of Maryland, 2015–2016
16. Patrick Washington, Aerospace Engineering, University of Maryland, 2014–2016
17. Cody Thon, Mechanical Engineering, Michigan State University, 2009–2014
18. Bin Tian, Electrical Engineering, Michigan State University, 2012–2013

Visiting Scholars

1. Prof. Hao Li, Wuhan University of Technology, China, 2017–2018

Research Volunteers

1. Sanjida Nasreen, CFD simulation, 2018–2020

Senior Design Teams

1. Aadam Dirie, Duy Tran, Kyle Shiflett, Peter Kim, Tirsaay Ahmed, ECE, 2020, “Mapping the Mason Pond”
2. Eric Phu, Jose Zurita, Yuhang Peng, Romani Fahmy, Kyle Guthrie, Will McCarty, ECE, 2020, “Aerial Soccer Game with Blimp UAVs: Actuation and Control”
3. Linh Le, Artem Melkunov, Tina Nguyen, Charles Stainer, Arash Touhidi, ECE, 2020, “Simultaneous Localization And Perception (SLAP)”
4. James Yang, Adam Boynton, Ryan Cathey, Nathaniel Wooley, Zachary Warner, Benson Garcia, ECE, 2020, “Developing Heterogeneous Lighter-Than-Air Aerial Vehicles”
5. Barak Widawsky, Nick Rivera, Edgar Pena, Victoria N Mai, Kira Page, ECE, 2020, “Underwater Inspection Using Real-Time Sonar Imaging Data”

6. Mohnish Vaid, Andre Griggs, Don Nguyen, Harsh Patel, Faraseldim Ali, Goutham Kommanaboyina, ECE, 2020, “Advanced Computer Vision with Depth Perception for Lighter-Than-Air Aerial Vehicles”
7. Wayne Tran, Brian Aguilar, Nisit Sean Visavakul, Andrew Hayden, Jasjeet Singh, ECE, 2019, “Developing an Automated Health Monitoring System for USVs”
8. Bennett Duncan, Logan Bieker, Peter Le, Anthony Matthews, Arjun Sikand, ECE, 2019, “FL.U.I.D. ROVs – Flow-sensing Underwater Implementation for Dynamic Remotely Operated Vehicles”
9. Sameer Ahmadi, Jermaine Azu, Saad Tambra, Momadu, Santuraki, Ahmed Abdulrahman, Darrell Evangelista, ECE, 2019, “Amphibious Aerial Aquatic Drone”
10. Andrew Ryan, Tyra Bookhart, Laura Carter, Paige Epler, BioEng, 2019, “An Automated Tubular Dilator for Minimally Invasive Brain and Spine Surgery”
Keynote Presentation at the 2019 VSE Undergraduate Research Celebration
11. Sergio Cruz, Blazej Horyza, Morteza Eskandari, ECE, 2018, “Bioinspired Unmanned Underwater Vehicle”
12. Kaitlyn Bub, Tina Bui, Huy Dang, Vivian Le, Matthew Rheinstein, Osaze Shears, ECE, 2018, “Project L.E.N.S. – A Robotic Eye System Using Artificial Muscles”
VSE Dean’s Advisory Board Award & ECE Outstanding Senior Design Award
13. Spencer Bauer, Jim Viar, Yufan Huang, Sean You, Bailor Hsu, ECE, 2018, “Developing an Amphibious Drone”
14. Layanne Hazim, Sergio Ribeiro, Totcheme Soufiano, Sami Mabrouk, Thang Dinh, ECE, 2018, “Researching the Feasibility of an Underwater Communication and Sensing System”
15. Jennifer Bleck, Monica Rios, Mariam Ahmad, Quentin O’Kelly, BioEng, 2017, “Biologically-Inspired Eye Robot with Artificial Muscles”
16. David Le, Dora Obodo, Antarius Daniel, Ahmad Mia, Lan-Khanh Tran, Qudsia Javid, BioEng, 2017, “Spinal Cannulation Automated Navigation (SCAN) Robotic System”
VSE Dean’s Advisory Board Award & BMES Student Design and Research Award
17. Ian Brierly, Wesley Chan, Md Ashraf Ansary, Trac Truong, Cong Do, Robert Nguyen, ECE, 2017, “Reaction Wheel Driven Aquatic Vessel”

High School Students

1. Karen Yang, Montgomery Blair High School, 2019
2. Angela Chen, Thomas Jefferson HS for Science and Technology, 2019
3. Sohan Sunku, Thomas Jefferson HS for Science and Technology, 2019
4. Maryum Khan, Chantilly High School, 2019
5. Joshua Yuan, Montgomery Blair High School, 2016
6. Elijah Achu, Eleanor Roosevelt High School, 2016

(xii) Presentations

1. “Bioinspired Distributed Flow Sensing for Autonomous Underwater Vehicles”, Young Researcher Symposium, Shenyang Institute of Automation, Chinese Academy of Sciences (virtual presentation), December 22, 2020
2. “Bioinspired Distributed Flow Sensing for Autonomous Underwater Vehicles”, Symposium on Bioinspired Underwater Robots, Peng Cheng Laboratory, Shenzhen, China (virtual presentation), August 18, 2020
3. “Design, Control, and Sensing of Autonomous Underwater Vehicles”, Young Researcher Symposium, Department of Automation at Shanghai Jiao Tong University (virtual presentation), June 25, 2020
4. “Flow Sensing and Control of Bio-inspired Underwater Vehicles”, ONR Summer Faculty Lecture

- Series at Naval Surface Warfare Center Carderock Division, West Bethesda, MD, July 23, 2019
5. “Bioinspired Flow Sensing for Soft Underwater Robots”, Branch Colloquium at the United States Naval Research Laboratory (NRL), Washington DC, September 18, 2018
 6. “Gliding Robotic Fish & Its Spiral-Based Sampling”, Marine Technology Society TechSurge, Marine Propulsion & Design: Inspiration From Nature, Norfolk, VA, July 19, 2017
 7. “Flow sensing and moment control of a soft bioinspired underwater robot”, Society of Engineering Science (SES) 53rd Annual Technical Meeting, College Park, MD, October 5, 2016
 8. “A Flexible, Reaction-Wheel-Driven Fish Robot: Flow Sensing and Flow-Relative Control”, American Control Conference (ACC), Boston, MA, July 5, 2016
 9. “Design, Modeling and Control of Autonomous Underwater Robots”, ME Departmental Seminar, University of Hawaii at Manoa, Honolulu, HI, April 18, 2016
 10. “Design, Modeling and Control of Autonomous Underwater Robots”, ECE Departmental Seminar, George Mason University, Fairfax, VA, April 6, 2016
 11. “Design, Modeling and Control of Autonomous Underwater Robots”, ME Departmental Seminar, University of New Hampshire, Durham, NH, March 7, 2016
 12. “Design, Modeling and Control of Autonomous Underwater Robots”, ECE Departmental Seminar, Miami University, Oxford, OH, February 29, 2016
 13. “Distributed flow sensing using Bayesian estimation for a flexible fish robot”, ASME Dynamic Systems and Control Conference (DSCC), Columbus, OH, October 28, 2015
 14. “Autonomous Sampling of Water Columns Using Gliding Robotic Fish: Algorithms and Harmful Algae-Sampling Experiments”, IEEE International Conference on Robotics and Automation (ICRA), Seattle, WA, May 27, 2015
 15. “Flow Sensing and Feedback Control of a Fish-inspired Underwater Vehicle”, UMD Institute for Systems Research’s (ISR) 30th Anniversary, College Park, MD, May 8, 2015
 16. “Propulsive Speed Control with Flow Sensing for a Flexible Fish Robot”, UMD GSAC/AIAA Research Luncheon, College Park, MD, March 13, 2015
 17. “A flexible fish robot with distributed flow sensing”, UMD Mini-Workshop on Flow Sensing and Control, College Park, MD, January 16, 2015
 18. “Nonlinear observer design for stabilization of gliding robotic fish,” American Control Conference (ACC), Portland, OR, June 6, 2014
 19. “Gliding robotic fish: A highly maneuverable and energy-efficient platform for aquatic sensing”, Marine Robotic Controls Minisymposium, SIAM Conference on Control and Its Applications, San Diego, CA, July 8, 2013
 20. “Passivity-based controller design for stabilization of underwater gliders,” American Control Conference (ACC), Montreal, Canada, June 29, 2012
 21. “Miniature underwater glider: Design, modeling, and experimental results,” IEEE International Conference on Robotics and Automation (ICRA), St. Paul, MN, May 17, 2012

(xiii) Conference Session Chair/Co-Chair

1. ASME Dynamic Systems and Control Conference, Atlanta, GA, 2018 (Session TA5)
2. ASME Dynamic Systems and Control Conference, Tysons Corner, VA 2017 (Session 21-2)
3. ASME Dynamic Systems and Control Conference, Columbus, OH, (Section WA3)
4. SIAM Conference on Control and Its Applications, San Diego, CA, 2013 (Session CT13)

(xiv) Editorial Services

1. Associate Editor, IEEE/ASME Conference on Advanced Intelligent Mechatronics (AIM), 2020, 2021, 2022, 2023

(xv) Professional Membership

1. Member, Institute of Electrical and Electronics Engineers (IEEE)
2. Member, American Society of Mechanical Engineers (ASME)