

Nevada Undergraduate Research Award (with Aaron

with application to shape memory alloy actuators," *Proceedings of the 2017 Robotics: Science and Systems XIII*, Cambridge, Massachusetts, USA, 2017

[C5] D. Torres, T. Wang, **J. Zhang**, S. Dooley, X. Tan, N. Sepulveda, \Experimental characterization of the dynamics of VO₂-based MEMS mirrors," *Proceedings of ASME 2016 Conference on Smart Materials, Adaptive Structures and Intelligent Systems*, Stowe, Vermont, USA, Paper SMASIS2016-9129 (7 pp), 2016

[C6] A. Abul, **J. Zhang**, R. Steidl, R. Gemma and X. Tan, \Microbial fuel cells: Control-oriented modeling and experimental validation," *Proceedings of the 2016 American Control Conference*, Boston, MA, USA, pp. 412-417, 2016

[C7] **J. Zhang**, D. Torres, N. Sepulveda and X. Tan, \Compressive sensing-based Preisach hysteresis model identification" [**Invited**], *Proceedings of the 2015 American Control Conference*, Chicago, IL, USA, pp. 2637-2642, 2015

[C8] **J. Zhang**, D. Torres, E. Merced, N. Sepulveda and X. Tan, \A hysteresis-compensated self-sensing scheme for vanadium dioxide-coated microactuators," *Proceedings of the 2014 ASME Dynamic Systems and Control Conference*, San Antonio, TX, USA, Paper DSCC2014-6222 (10 pp), 2014

[C9] **J. Zhang**, E. Merced, N. Sepulveda and X. Tan, \Inversion of an extended generalized Prandtl-Ishlinskii hysteresis model: Theory and experimental results" [**Invited**], *Proceedings of the the 2014 American Control Conference*, Portland, OR, USA, pp. 4765-4770, 2014

[C10] **J. Zhang**, E. Merced, N. Sepulveda and X. Tan, \Optimal compression of a generalized Prandtl-Ishlinskii operator in hysteresis modeling," *Proceedings of the 2013 ASME Dynamic Systems and Control Conference*, Palo Alto, CA, USA, Paper DSCC2013-3969 (10 pp), 2013 [**Best Conference Paper in Applications Award**]

[C11] E. Merced, **J. Zhang**, X. Tan and N. Sepulveda, \Robust control of VO₂-coated microactuators based on an extended Prandtl-Ishlinskii operator" [**Invited**], *Proceedings of ASME 2016 Conference on Smart Materials, Adaptive Structures and Intelligent Systems*, Stowe, Vermont, USA, Paper SMASIS2016-9129 (7 pp), 2016

USA, 2017

[W2] **J. Zhang** and M. C. Yip, "Designing muscle-powered robotics with super-coiled polymers," *Robotics: Science and Systems*, in workshop: *Robot Makers: The future of digital rapid design and fabrication of robots*, (4 pp), Ann Arbor, MI, USA, 2016

PATENTS

[P1] M. C. Yip, **J. Zhang**, A. Tran and W. Kuang, "System and method for robust and low-cost multi-axis force sensor," U.S. Provisional Patent Application 62/433578, 2016

SEMINARS AND TALKS

[1] "Smart materials for motion generation: Analysis and robotic applications", Neuro Journal Club, University of Nevada Reno, Reno, NV, November 1, 2018, (Host: Dr. Dennis Mathew)

[2] "Motion generation with smart materials: Scalable solutions to modeling, control, and design", ME 100/200 Seminar Series, Department of Mechanical Engineering, University of California Santa Barbara, Santa Barbara, CA, April 9, 2018, (Host: Dr. Francesco Bullo)

[3] "Motion generation with smart materials: Scalable solutions to modeling, control, and design", Department of Mechanical Engineering, Temple University, Philadelphia, PA, April 3, with smart materials

Vasilii Mansurov (Master student), Electrical Engineering (Biomedical Emphasis), 2019/02 - present

Undergraduates Students Advisees

Christopher Mullen, Mechanical Engineering, 2019/05 - present

Christopher Fulwider, Mechanical Engineering, 2019/05 - present

Ryan Coulter, Mechanical Engineering [NSMrtllen,

PROFESSIONAL MEMBERSHIP AND

2. ASME Conference on Smart Materials, Adaptive Structures and Intelligent Systems (SMASIS 2019)
3. ASME Dynamic Systems and Control Conference (DSCC 2012, 2013, 2018, 2019)
4. IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM 2018, 2019)
5. IEEE Conference on Decision and Control (CDC 2016)
6. IEEE International Conference on Robotics and Automation (ICRA 2018)
7. IEEE International Conference on Robotics and Biomimetics (ROBIO 2018)
8. IEEE International Conference on Soft Robotics (RoboSoft 2018)
9. IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2018)
10. IFAC World Congress (WC 2017)

INSTITUTIONAL SERVICE

University Committees

1. Judge, UNR Graduate Poster Symposium November 2018
2. Evaluator, UNR Graduate Research Grant Program October 2018

Department Committees

1. Member, Faculty Search Committee (Aerospace System) September 2018 - present