

PANAGIOTIS (PANOS) ARTEMIADIS, Ph.D.

Professor of Mechanical Engineering

Director, Human-Oriented Robotics and Control (HORC) Lab

Department of Mechanical Engineering | University of Delaware | Newark, DE 19716

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CV Last Updated: August 2026

Total External Funding: \$37.5M Total (\$6.4M Direct Share)

Publications: 140 Peer-Reviewed (170 Total) | **Citations:** 5,638 | **h-index:** 38

Patents: 12 Total (8 Issued)

Ph.D. Advisees: 15 Graduated, 5 Current | **M.S. Advisees:** 24 | **Undergrad Researchers:** 70

Courses Taught: 30 Semester Offerings | **Mean Teaching Evaluation:** 4.71 / 5.00

Invited Talks: 36 Total (3 Keynotes) | **Editorial Leadership:** 1 EiC, 5 Assoc. Editor Roles

Major Honors: DARPA YFA, AFOSR YIP, 6 Best Paper Awards or Nominations

Education

Ph.D. in Mechanical Engineering

2009

National Technical University of Athens, Athens, Greece

Dissertation: "Control methodologies for neuro-robotic systems"

Advisor: Prof. Kostas J. Kyriakopoulos

B.S. / M.S. (5-Year Diploma) in Mechanical Engineering

2003

National Technical University of Athens, Athens, Greece

Thesis: "Visual servoing of robotic manipulators for grasping of tiles on a moving transfer belt"

Advisor: Prof. Kostas J. Kyriakopoulos

Academic Appointments & Professional Experience

Professor

Sep 2024 – Present

Department of Mechanical Engineering, University of Delaware, Newark, DE

- Director, Human-Oriented Robotics and Control (HORC) Lab
- Graduate Program Director, Master of Science in Robotics
- Affiliated Faculty (Joint Appointment), Department of Biomedical Engineering

Associate Professor (with Tenure)

Aug 2019 – Aug 2024

Department of Mechanical Engineering, University of Delaware, Newark, DE

- Director, Human-Oriented Robotics and Control (HORC) Lab
- Graduate Program Director, Master of Science in Robotics
- Affiliated Faculty (Joint Appointment), Department of Biomedical Engineering

Associate Professor (with Tenure)

Aug 2017 – Aug 2019

Department of Mechanical & Aerospace Engineering, Arizona State University, Tempe, AZ

- Founder and Director, Human-Oriented Robotics and Control (HORC) Lab
- Graduate Program Chair, Robotics and Autonomous Systems Graduate Program
- Graduate Faculty: Biomedical Engineering | Electrical Engineering | Systems Engineering
- Honors Faculty, Barrett, the Honors College

Assistant Professor

Aug 2011 – Jul 2017

Department of Mechanical & Aerospace Engineering, Arizona State University, Tempe, AZ

- Founder and Director, Human-Oriented Robotics and Control (HORC) Lab

- Graduate Faculty: Biomedical Engineering | Electrical Engineering
- Honors Faculty, Barrett, the Honors College

Postdoctoral Research Associate**Mar 2009 – Jul 2011***Massachusetts Institute of Technology (MIT), Cambridge, MA**Advisor:* Prof. Hermano Igo Krebs

- Developed a novel gait rehabilitation robotic device, the MIT-Skywalker.

Research Intern**Jun 2008 – Aug 2008***Toyota Technological Institute at Chicago (TTI-C), Chicago, IL**Advisor:* Prof. Gregory Shakhnarovich

- Developed mathematical models for human hand motion description.

Visiting Research Associate**Jan 2007 – May 2007***Brown University, Department of Computer Science, Providence, RI**Advisors:* Prof. Michael Black (Primary), Prof. John Donoghue

- Developed neural decoders for robot hand prosthesis.

Visiting Researcher**Nov 2006***DLR Institute of Robotics and Mechatronics, Wessling, Germany**Advisor:* Prof. Patrick van der Smagt

- Developed controller for multi-fingered robot hand.

Visiting Researcher**2005 – 2006***Scuola Superiore Sant'Anna, ARTS Lab, Pisa, Italy**Advisor:* Prof. Maria Chiara Carrozza

- Identification and control of a novel agonist-antagonist hydraulic robot arm.

Honors, Awards & Recognitions

Young Investigator Awards: 2 (DARPA, AFOSR) | Best Paper Awards & Finalists: 6
Teaching & Excellence Honors: 8 | Professional Rank: IEEE Senior Member

Major Research & Faculty Awards

DARPA Young Faculty Award (YFA)**Aug 2014***Defense Advanced Research Projects Agency (DARPA)*

Selected among 33 nationwide junior faculty awardees engaging in critical DoD research challenges.

AFOSR Young Investigator Award (YIP)**Jan 2014***Air Force Office of Scientific Research (AFOSR)*

Selected among 42 early-career scientists nationwide conducting high-promise basic scientific research.

Frontiers of Engineering Education (FOEE) Selected Member**Mar 2015***National Academy of Engineering (NAE)*

Selected among the nation's most innovative engineering educators to promote substantive engineering education.

ASU Fulton Exemplar Faculty Award**May 2017***Arizona State University, Tempe, AZ*

Recognizes faculty combining high research productivity, instructional excellence, and doctoral mentoring.

Sarafi Award for Best Ph.D. Thesis (AY 2008–2009)**Dec 2012***National Technical University of Athens, Athens, Greece*

Awarded for the top Ph.D. dissertation across all engineering disciplines at NTUA.

Best Paper & Publication Awards

Best Student Paper Award (2nd Runner Up) **Sep 2021**
IEEE International Conference on Multisensor Fusion and Integration (MFI), Karlsruhe, Germany
 Paper: “Automatic Identification of the Leader in a Swarm using an Optimized Clustering and Probabilistic Approach”

RehabWeek Paper Award Finalist **Jul 2019**
IEEE 16th International Conference on Rehabilitation Robotics (ICORR), Toronto, Canada
 Paper: “Anticipatory muscle responses in transitions from rigid to compliant surfaces: towards smart ankle-foot prostheses”

2nd Best Student Paper Award **Oct 2008**
IEEE International Conference on Bioinformatics and Bioengineering (BIBE), Athens, Greece
 Paper: “Assessment of Muscle Fatigue using a Probabilistic Framework for an EMG-based Robot Control Scenario” (Selected out of 400 papers)

Best Application Paper Finalist (Top 5) **Sep 2008**
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Nice, France
 Paper: “Estimating Arm Motion and Force using EMG signals: On the Control of Exoskeletons” (Top 5 out of 700 papers)

Best Paper Finalist (Top 5) **Sep 2007**
IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM), Zurich, Switzerland
 Paper: “EMG-based Position and Force Control of a Robot Arm: Application to Teleoperation and Orthosis” (Top 5 out of 350 papers)

Thomaidion Award for Scientific Publications **2005 – 2008**
National Technical University of Athens, Athens, Greece
 Annual university awards recognizing outstanding peer-reviewed conference publications in robotics and control.

Teaching, Service & Professional Recognitions

Nominated for the Excellence in Teaching Award **Apr 2025**
University of Delaware Faculty Senate, Newark, DE

Nominated for the College of Engineering Excellence in Teaching Award **Apr 2025**
College of Engineering, University of Delaware, Newark, DE

Nominated for the Excellence in Teaching Award **Apr 2023**
University of Delaware Faculty Senate, Newark, DE

Elevation to IEEE Senior Member **Feb 2017**
Institute of Electrical and Electronics Engineers (IEEE)
 Grade held by top 10% of IEEE members reflecting significant documented achievements and professional maturity.

ASASU Centennial Professor Award (Honorable Mention) **Apr 2015**
Arizona State University, Tempe, AZ

Fulton Faculty Development Chair **Apr 2015**
Ira A. Fulton Schools of Engineering, Arizona State University, Tempe, AZ

Top 5% Teaching Award **Apr 2013**
Ira A. Fulton Schools of Engineering, Arizona State University, Tempe, AZ
 Recognized among top 10–12 engineering faculty across all five schools for teaching excellence.

Nominated for the ASASU Centennial Professor Award

Feb 2013

Arizona State University, Tempe, AZ

Publications

Editorials: 1 | Journals: 51 | Books Edited: 1 | Book Chapters: 7
 Refereed Conference Papers: 76 | Non-Refereed/Workshop Abstracts: 28
 Magazine Articles: 6

* Corresponding author Underline Graduate student advised † Undergraduate student advised

Editorials

1. **Panagiotis Artemiadis*** and Marco Santello, "Editorial: Foreword for special issue on rehabilitation robotics and human-robot interaction," *Robotica*, vol. 32, special issue 08, pp. 1189–1190, December 2014.

Peer-Reviewed Journal Articles

51. Bradley Hobbs and **Panagiotis Artemiadis***, "Investigating the Adaptive Effects of Ground Compliance in Visual Feedback-Based Propulsion Training," *Journal of Rehabilitation Methods and Technologies*, 2026.
50. Gustavo A. Cardona, Shubham S. Kumbhar, and **Panagiotis Artemiadis***, "Toward Seamless Physical Human-Humanoid Interaction: Insights from Control, Intent, and Modeling with a Vision for What Comes Next," *Journal of Intelligent & Robotic Systems*, 2026.
49. Brockmeier, A., Artemiadis, P., Boukari, H., Callison-Burch, C., Eaton, E., Harley, J., Powers, T., Principe, J. C., Reisman, D., and Wu, C., "Human-AI cooperation in healthcare and rehabilitation," *Delaware Journal of Public Health*, 2026.
48. Chrysostomos Karakasis, Camryn Scully, Robert Salati, and **Panagiotis Artemiadis***, "Control of Powered Ankle-Foot Prostheses on Compliant Terrain: A Quantitative Approach to Stability Enhancement," *Actuators*, 2026.
47. Charikleia Angelidou, Jaclyn Sions, and **Panagiotis Artemiadis***, "ASTRA-BF: A Human-in-the-loop Algorithm for Predicting Surface Transitions in Robotic Lower Limb Prosthetics Using Biomechanical Features," *Robotics and Autonomous Systems*, 191, 105030, 2025.
46. Charikleia Angelidou, Vaughn Chambers, Bradley Hobbs, Chrysostomos Karakasis, and **Panagiotis Artemiadis***, "Kinematics, kinetics, and muscle activations during human locomotion over compliant terrains," *Scientific Data*, 12(1), 84, 2025.
45. Vaughn Chambers, Bradley Hobbs, William Gaither†, Zachary The†, Anthony Zhou†, Chrysostomos Karakasis, and **Panagiotis Artemiadis***, "The Variable Stiffness Treadmill (VST) 2: Development and Validation of a Unique Tool to Investigate Locomotion on Compliant Terrain," *ASME Journal of Mechanisms and Robotics*, 17(3), Mar 2025.
44. Jesus Orozco and **Panagiotis Artemiadis***, "Extracting Human Levels of Trust in Human-Swarm Interaction using EEG signals," *IEEE Transactions on Human-Machine Systems*, vol. 54, no. 2, pp. 182–191, April 2024.
43. Chrysostomos Karakasis, Ioannis Poulakakis, and **Panagiotis Artemiadis***, "An Energy-based Framework for Robust Dynamic Bipedal Walking over Compliant Terrain," *ASME Journal of Dynamic Systems, Measurement, and Control*, 146(2): 021008, March 2024.

42. Vaughn Chambers, Madison Johnson[†], and **Panagiotis Artemiadis***, “Robot-assisted Targeted Gait Training,” *Journal of Kinesiology and Exercise Sciences*, 105(34): 11–22, 2024.
41. Charikleia Angelidou and **Panagiotis Artemiadis***, “On Predicting Transitions to Compliant Surfaces in Human Gait via Neural and Kinematic Signals,” *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 31: 2214–2223, 2023.
40. Ciaran T. O’Neill, Harrison T. Young, Cameron J. Hohimer, Tommaso Proietti, Mo Rastgaar, **Panagiotis Artemiadis**, and Conor J. Walsh, “Tunable, Textile-based Joint Impedance Module for Soft Robotic Applications,” *Soft Robotics*, 2023.
39. Vaughn Chambers and **Panagiotis Artemiadis***, “Using Robot-Assisted Stiffness Perturbations to Evoke Aftereffects Useful to Post-Stroke Gait Rehabilitation,” *Frontiers in Robotics and AI*, 9, 2023.
38. Chrysostomos Karakasis and **Panagiotis Artemiadis***, “Real-time kinematic-based detection of foot-strike during walking,” *Journal of Biomechanics*, vol. 129, p. 110849, 2021.
37. Vaughn Chambers and **Panagiotis Artemiadis***, “A Model-Based Analysis of Supraspinal Mechanisms of Inter-Leg Coordination in Human Gait: Toward Model-Informed Robot-Assisted Rehabilitation,” *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, vol. 29, pp. 740–749, 2021.
36. Carly Thalman and **Panagiotis Artemiadis***, “A Review of Soft Wearable Robots that Provide Active Assistance: Trends, Common Actuation Methods, Fabrication, and Applications,” *Wearable Technologies*, 1, E3, 2020.
35. Bradley Hobbs and **Panagiotis Artemiadis***, “A Review of Robot-Assisted Lower-Limb Stroke Therapy: Unexplored Paths and Future Directions in Gait Rehabilitation,” *Frontiers in Neuro-robotics*, 14, 2020.
34. Chuong H. Nguyen, George K. Karavas, and **Panagiotis Artemiadis***, “Adaptive multi-degree of freedom Brain Computer Interface using online feedback: towards novel methods and metrics of mutual adaptation between humans and machines for BCI,” *PLoS ONE*, 14(3): e0212620, 2019.
33. Christopher A. Buneo*, Joshua Klein, Bryan Whitsell, and **Panagiotis Artemiadis**, “Perception of arm position in three-dimensional space,” *Frontiers in Human Neuroscience*, vol. 12, article 331, 2018.
32. Juri Taborri, Valentina Agostini, **Panagiotis Artemiadis**, Marco Ghislieri, Daniel A. Jacobs, Jinsook Roh, and Stefano Rossi*, “Feasibility of muscle synergy outcomes in clinics, robotics and sports: a systematic review,” *Applied Bionics and Biomechanics*, vol. 2018, Article ID 3934698, 19 pages, 2018.
31. Chuong H. Nguyen and **Panagiotis Artemiadis***, “EEG Feature Descriptors and Discriminant Analysis under Riemannian Manifold perspective,” *Neurocomputing*, vol. 275, pp. 1871–1883, 2018.
30. Chuong H. Nguyen, George K. Karavas, and **Panagiotis Artemiadis***, “Inferring imagined speech using EEG signals: a new approach using Riemannian manifold features,” *Journal of Neural Engineering*, 15(1), 016002, 2018.
29. Michael Wininger*, **Panagiotis Artemiadis**, Claudio Castellini, and Patrick M. Pilarski, “Peripheral Nervous System-Machine Interfaces,” *Frontiers in Neurorobotics*, 11, p. 54, 2017.
28. Jeffrey Skidmore and **Panagiotis Artemiadis***, “Unilateral Changes in Walking Surface Compliance Evoke Dorsiflexion in Paretic Leg of Impaired Walkers,” *Journal of Rehabilitation and Assistive Technologies Engineering*, 4: 2055668317738469, 2017.

27. Bryan Whitsell and **Panagiotis Artemiadis***, “Physical Human-Robot Interaction (pHRI) in 6 DOF With Asymmetric Cooperation,” *IEEE Access*, vol. 5, pp. 10834–10845, 2017.
26. Keivan Mojtahedi, Bryan Whitsell, **Panagiotis Artemiadis***, and Marco Santello, “Communication and Inference of Intended Movement Direction during Human-Human Physical Interaction,” *Frontiers in Neurobotics*, vol. 11(21), pp. 1–12, 2017.
25. **Panagiotis Artemiadis***, “Brain-Swarm Control Interfaces: The Transition from Controlling One Robot to a Swarm of Robots,” *Advances in Robotics & Automation*, 6: e127, 2017 (editorial article).
24. Alycia Gailey, **Panagiotis Artemiadis**, and Marco Santello*, “Proof of concept of an online EMG-based decoding of hand postures and individual digit forces for prosthetic hand control,” *Frontiers in Neurology - Neuroprosthetics*, vol. 8(7), pp. 1–15, 2017.
23. Minas Liarokapis*, Charalampos P. Bechlioulis, **Panagiotis Artemiadis**, and Kostas J. Kyriakopoulos, “Deriving Humanlike Arm Hand System Poses,” *ASME Journal of Mechanisms and Robotics*, vol. 9(1), 2017.
22. Justin Hunt, Hyunglae Lee, and **Panagiotis Artemiadis***, “A Novel Shoulder Exoskeleton Robot Using Parallel Actuation and a Passive Slip Interface,” *ASME Journal of Mechanisms and Robotics*, vol. 9(1), 2017.
21. Ioannis Kaneris[†], Alison Gibson[†], and **Panagiotis Artemiadis***, “A Cross-Modal Feedback Scheme for Control of Prosthetic Grasp Strength,” *Journal of Rehabilitation and Assistive Technologies Engineering*, vol. 3, pp. 1–10, 2016.
20. Jeffrey Skidmore and **Panagiotis Artemiadis***, “On the effect of walking surface stiffness on inter-limb coordination in human walking: toward bilaterally informed robotic gait rehabilitation,” *Journal of NeuroEngineering and Rehabilitation*, 13(23), pp. 1–15, 2016.
19. Stefan Seiterle, Tyler Susko, **Panagiotis Artemiadis**, Robert Riener, and Hermano Igo Krebs*, “Interlimb Coordination in Body-Weight Supported Locomotion: A Pilot Study,” *Journal of Biomechanics*, vol. 48, issue 11, pp. 2837–2843, 2015.
18. Jeffrey Skidmore and **Panagiotis Artemiadis***, “Unilateral Floor Stiffness Perturbations Systematically Evoke Contralateral Leg Muscle Responses: a New Approach to Robot-assisted Gait Therapy,” *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, vol. 24(4), pp. 467–474, 2016.
17. Mark Ison, Ivan Vujaklija, Bryan Whitsell, Dario Farina, and **Panagiotis Artemiadis***, “High-Density Electromyography and Motor Skill Learning for Robust Long-Term Control of a 7-DoF Robot Arm,” *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, vol. 24(4), pp. 424–433, 2016.
16. Mark Ison and **Panagiotis Artemiadis***, “Proportional Myoelectric Control of Robots: Muscle Synergy Development drives Performance Enhancement, Retainment, and Generalization,” *IEEE Transactions on Robotics*, vol. 31, issue 2, pp. 259–268, 2015.
15. Ryan Frost[†], Jeffrey Skidmore, Marco Santello, and **Panagiotis Artemiadis***, “Sensorimotor control of gait: A novel approach for the study of the interplay of visual and proprioceptive feedback,” *Frontiers in Human Neuroscience*, 9: 14, 2015.
14. Castellini, Claudio, **Panagiotis Artemiadis**, Michael Wininger*, Arash Ajoudani, Merkur Alimusaj, Antonio Bicchi, Barbara Caputo, William Craelius, Strahinja Dosen, Kevin Englehart, Dario Farina, Arjan Gijsberts, Sasha B. Godfrey, Levi Hargrove, Mark Ison, Todd Kuiken, Marko Markovic, Patrick M. Pilarski, Rudiger Rupp, and Erik Scheme, “Proceedings of the first workshop on Peripheral Machine Interfaces: Going beyond traditional surface electromyography,” *Frontiers in Neurobotics*, 8: 22, 2014.

13. Jeffrey Skidmore, Andrew Barkan[†], and **Panagiotis Artemiadis**^{*}, “Variable Stiffness Treadmill (VST): System Development, Characterization and Preliminary Experiments,” *IEEE/ASME Transactions on Mechatronics*, vol. 20, issue 4, pp. 1717–1724, 2015.
12. Mark Ison and **Panagiotis Artemiadis**^{*}, “The Role of Muscle Synergies in Myoelectric Control: Trends and Challenges for Simultaneous Multifunction Control,” *Journal of Neural Engineering*, vol. 11(5), 2014.
11. Harshil Patel, Gerald O’Neill[†], and **Panagiotis Artemiadis**^{*}, “On the Effect of Muscular Co-contraction on the 3D Human Arm Impedance,” *IEEE Transactions on Biomedical Engineering*, vol. 61(10), pp. 2602–2608, 2014.
10. Stephen Warren[†] and **Panagiotis Artemiadis**^{*}, “On the Control of Human-Robot Bi-manual Manipulation,” *Journal of Intelligent and Robotic Systems*, vol. 78, pp. 21–32, 2015.
9. Chris Wilson Antuvan, Mark Ison, and **Panagiotis Artemiadis**^{*}, “Embedded Human Control of Robots using Myoelectric Interfaces,” *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, vol. 22, no. 4, pp. 820–827, 2014.
8. Yuting Wang and **Panagiotis Artemiadis**^{*}, “Closed-Form Inverse Kinematic Solution for Anthropomorphic Motion in Redundant Robot Arms,” *Advances in Robotics & Automation*, 2: 110, 2013.
7. Minas V. Liarokapis^{*}, **Panagiotis Artemiadis**, Kostas J. Kyriakopoulos, and Elias S. Manolakos, “A Learning Scheme for Reach to Grasp Movements: On EMG-Based Interfaces Using Task Specific Motion Decoding Models,” *IEEE Journal of Biomedical and Health Informatics*, vol. 17(5), pp. 915–921, 2013.
6. **Panagiotis Artemiadis**^{*}, “EMG-based Robot Control Interfaces: Past, Present and Future,” *Advances in Robotics & Automation, Long Editorial Article*, 1:e107, 2012.
5. **Panagiotis Artemiadis**^{*} and Kostas J. Kyriakopoulos, “A Switching Regime Model for the EMG-based Control of a Robot Arm,” *IEEE Transactions on Systems, Man, and Cybernetics, Part B: Cybernetics*, vol. 41(1), pp. 53–63, 2011.
4. **Panagiotis Artemiadis**^{*} and Kostas J. Kyriakopoulos, “An EMG-based Robot Control Scheme Robust to Time-varying EMG Signal Features,” *IEEE Transactions on Information Technology in Biomedicine*, vol. 14(3), pp. 582–588, 2010.
3. **Panagiotis Artemiadis**^{*}, Pantelis T. Katsiaris, and Kostas J. Kyriakopoulos, “A biomimetic approach to inverse kinematics for a redundant robot arm,” *Autonomous Robots*, vol. 29(3), pp. 293–308, 2010.
2. **Panagiotis Artemiadis**^{*} and Kostas J. Kyriakopoulos, “EMG-based Control of a Robot Arm using Low-Dimensional Embeddings,” *IEEE Transactions on Robotics*, vol. 26(2), pp. 393–398, 2010.
1. Emanuele Cattin^{*}, Stefano Roccella, Nicola Vitiello, Clemens Eder, Irene Sardellitti, **Panagiotis Artemiadis**, Pierpaolo Vacalebri, Fabrizio Vecchi, Maria Chiara Carrozza, Kostas J. Kyriakopoulos, and Paolo Dario, “Design and Development of a Novel Robotic Platform for Neuro-Robotics Applications: the NEURobotics ARM (NEURARM),” *RSJ Advanced Robotics*, 22, pp. 3–37, 2008.

Books

1. **Panagiotis Artemiadis** (Ed.), *Neuro-robotics: From brain machine interfaces to rehabilitation robotics*, Vol. 2, Springer Series: Trends on Augmentation of Human Performance, Springer, 2014.

Book Chapters

7. Jeevan Perera, Monica Visinsky, Evan Laske, Panagiotis Artemiadis, George Salazar, Kimia Seyedmadani, Elizabeth Schmida, Michael Steele, and Isaac Mensah, Jr., “Robotic systems safety,” In Tommaso Sgobba, Gary Eugene Musgrave, Gary Johnson, Michael T. Kezirian (Eds.), *Safety Design for Space Systems (2nd edition)*, pp. 1033–1082, Elsevier, 2023.
6. Minas V. Liarakakis*, Kostas J. Kyriakopoulos, and **Panagiotis Artemiadis**, “A Learning Scheme for EMG Based Interfaces: On Task Specificity in Motion Decoding Domain,” In Panagiotis Artemiadis (Ed.), *Neuro-robotics: From brain machine interfaces to rehabilitation robotics*, Vol. 2, pp. 3–36, Springer Netherlands, 2014.
5. Christopher Buneo*, Stephen Helms Tilley, Marco Santello, **Panagiotis Artemiadis**, and Veronica Santos, “Optimal Neural Representations for Brain-Mediated Human-Robot Interactions,” In Panagiotis Artemiadis (Ed.), *Neuro-robotics: From brain machine interfaces to rehabilitation robotics*, Vol. 2, pp. 207–237, Springer Netherlands, 2014.
4. Hermano Igo Krebs*, Anindo Roy, **Panagiotis Artemiadis**, Joeeun Ahn, and Neville Hogan, “Beyond human or robot administered treadmill training,” In Volker Dietz, Tobias Nef, William Zev Rymer (Eds.), *Neurorehabilitation Technology*, Springer Publications, 2012.
3. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, “Bio-inspired mechatronics and control interfaces,” In Vassilis Cutsuridis, Amir Hussain, John G. Taylor (Eds.), *Perception-action cycle: Models, architectures and hardware*, Springer Publications, 2011.
2. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, “Human peripheral nervous system controlling robots,” In Fei Hu, Yang Xiao (Eds.), *Bio-inspired Computing and Communication Networks*, Auerbach Publications, Taylor & Francis Group, CRC, 2011.
1. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, “EMG-Based Position and Force Estimates in Coupled Human-Robot Systems: Towards EMG-Controlled Exoskeletons,” In Oussama Khatib, Vijay Kumar, George Pappas (Eds.), *Experimental Robotics*, Springer Publications, pp. 241–250, 2009.

Peer-Reviewed Conference Papers with Indexed Proceedings (Long Papers)

76. Stergios Bachoumas, John Cahill[†], and **Panagiotis Artemiadis***, “Head-On: Robust Tactile Force Sensing for Quadrupedal Interaction,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2026 (to appear).
75. Jesus Orozco, Coleman Walsh[†], and **Panagiotis Artemiadis***, “Human Trust-Driven Adaptive Control for Unmanned Aerial Swarms,” *International Conference on Unmanned Aircraft Systems (ICUAS)*, 2026 (to appear).
74. Charikleia Angelidou, Jaclyn Sions, and **Panagiotis Artemiadis***, “On Predicting Transitions to Compliant Surfaces in Adults with Transtibial Amputation: A Real-Time Classification Approach,” *47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Copenhagen, Denmark, 2025.
73. Jesus Orozco, Stergios Bachoumas, and **Panagiotis Artemiadis***, “Quantifying Human Trust in Controlling Robot Swarms: EEG-based Analysis and Classification,” *47th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Copenhagen, Denmark, 2025.
72. Charikleia Angelidou, Benjamin Chen[†], and **Panagiotis Artemiadis***, “Dynamic Adaptation of Robotic Ankle-Foot Prostheses to Compliant Terrain: Reacting to Surface Stiffness Changes in Real-Time,” *IEEE International Conference on Rehabilitation Robotics (ICORR)*, Chicago, IL, 2025 (to appear).

71. Vaughn Chambers and **Panagiotis Artemiadis***, “Unilateral Compliant Surfaces in Post-Stroke Gait Retraining: Enhancing Symmetry and Stability,” *IEEE International Conference on Rehabilitation Robotics (ICORR)*, pp. 267–271, Chicago, IL, 2025.
70. Shubham Kumbhar and **Panagiotis Artemiadis***, “MPC-QP-based Control Framework for Compliant Behavior of Humanoid Robots in Physical Collaboration with Humans,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 14714–14720, Atlanta, GA, 2025.
69. Stergios Bachoumas and **Panagiotis Artemiadis***, “Learning Adversarial Policies for Swarm Leader Identification using a Probing Agent,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 1–7, Atlanta, GA, 2025.
68. Charikleia Angelidou and **Panagiotis Artemiadis***, “Reducing Complexity, Enhancing Precision: Predicting Compliant Surface Transitions in Walking via Neighborhood Component Analysis,” *10th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechanics (BioRob)*, Heidelberg, Germany, September 2024.
67. Bradley Hobbs and **Panagiotis Artemiadis***, “Intentional Increases in Push-off Force Coupled With Visual Feedback: Towards New Strategies in Robot-Assisted Gait Rehabilitation,” *10th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechanics (BioRob)*, Heidelberg, Germany, September 2024.
66. Bradley Hobbs and **Panagiotis Artemiadis***, “Virtual Reality-based Robot-Assisted Method for Gait Training Showing Retention of Anticipatory Motor Responses,” *10th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechanics (BioRob)*, Heidelberg, Germany, September 2024.
65. Georgia Kouvoutsakis, Kleio Baxevani, Jesus Orozco, Herbert Tanner, **Panagiotis Artemiadis**, James Galloway, Guoquan Huang, and Elena Kokkoni, “A Pediatric Motor Training Environment Based on Human-swarm Interactions,” *IEEE International Conference on Development and Learning (ICDL)*, Austin, Texas, May 2024.
64. Charikleia Angelidou and **Panagiotis Artemiadis***, “On Intuitive Control of Ankle-Foot Prostheses: A Sensor Fusion-based Algorithm for Real-Time Prediction of Transitions to Compliant Surfaces,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Detroit, MI, USA, pp. 2122–2127, 2023.
63. Chrysostomos Karakasis, Robert Salati, and **Panagiotis Artemiadis***, “Adjusting the Quasi-Stiffness of an Ankle-Foot Prosthesis Improves Walking Stability during Locomotion over Compliant Terrain,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Detroit, MI, USA, pp. 2140–2145, 2023.
62. Vaughn Chambers and **Panagiotis Artemiadis***, “A Model-Based Analysis of The Effect of Repeated Unilateral Low Stiffness Perturbations on Human Gait: Toward Robot-Assisted Rehabilitation,” *IEEE International Conference on Robotics and Automation (ICRA)*, 2023 (to appear).
61. Bradley Hobbs and **Panagiotis Artemiadis***, “A Systematic Method for Outlier Detection in Human Gait Data,” *IEEE 17th International Conference on Rehabilitation Robotics (ICORR)*, pp. 1–6, 2022.
60. Chrysostomos Karakasis, Ioannis Poulakakis, and **Panagiotis Artemiadis***, “Robust Dynamic Walking for a 3D Dual-SLIP Model under One-Step Unilateral Stiffness Perturbations: Towards Bipedal Locomotion over Compliant Terrain,” *30th Mediterranean Conference on Control and Automation (MED)*, pp. 969–975, 2022.
59. Vaughn Chambers and **Panagiotis Artemiadis***, “Repeated Robot-assisted Unilateral Stiffness Perturbations Result in Significant Aftereffects Relevant to Post-Stroke Gait Rehabilitation,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 5426–5433, 2022.

58. Chrysostomos Karakasis and **Panagiotis Artemiadis***, “F-VESPA: A Kinematic-based Algorithm for Real-time Heel-strike Detection During Walking,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pp. 5098–5103, 2021.
57. Ajitesh Singh and **Panagiotis Artemiadis***, “Automatic Identification of the Leader in a Swarm using an Optimized Clustering and Probabilistic Approach,” *IEEE International Conference on Multisensor Fusion and Integration (MFI)*, pp. 1–6, 2021. **[Best Student Paper Award 2nd Runner Up]**
56. Lynsey Lehmann and **Panagiotis Artemiadis***, “Quantifying Kinematic Adaptations of Gait During Walking on Terrains of Varying Surface Compliance,” *8th IEEE RAS/EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob)*, New York City, NY, USA, pp. 816–821, 2020.
55. Andrew Levitsky, Josh Klein, **Panagiotis Artemiadis**, and Christopher Buneo*, “Effects of Transcutaneous Electric Nerve Stimulation on Upper Extremity Proprioceptive Function,” *42nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, Montreal, Canada, pp. 3577–3580, July 2020.
54. Daniel Larsson, Chuong Nguyen, and **Panagiotis Artemiadis***, “Modeling and Control of Mid-flight Coupling of Quadrotors: A new concept for Quadrotor cooperation,” *IEEE International Conference on Unmanned Aircraft Systems (ICUAS)*, Athens, Greece, pp. 310–315, September 2020.
53. Michael Drolet[†], Emiliano Quinones Yumbla, Bradley Hobbs, and **Panagiotis Artemiadis***, “On the Effects of Visual Anticipation of Floor Compliance Changes on Human Gait: Towards Model-based Robot-Assisted Rehabilitation,” *IEEE International Conference on Robotics and Automation (ICRA)*, Paris, France, pp. 9072–9078, May 2020.
52. Emiliano Quinones Yumbla, Ruby Afriyie Obeng, Jeffrey Ward, Thomas Sugar, and **Panagiotis Artemiadis***, “Anticipatory muscle responses in transitions from rigid to compliant surfaces: towards smart ankle-foot prostheses,” *IEEE 16th International Conference on Rehabilitation Robotics (ICORR)*, pp. 880–885, 2019. **[RehabWeek Paper Award Finalist]**
51. Jeffrey Skidmore and **Panagiotis Artemiadis***, “A Comprehensive Analysis of Sensorimotor Mechanisms of Inter-Leg Coordination in Gait Using the Variable Stiffness Treadmill: Physiological Insights for Improved Robot-Assisted Gait Therapy,” *IEEE 16th International Conference on Rehabilitation Robotics (ICORR)*, pp. 28–33, 2019.
50. Justin Hunt, **Panagiotis Artemiadis***, and Hyunglae Lee, “Optimizing Stiffness of a Novel Parallel-Actuated Robotic Shoulder Exoskeleton for a Desired Task or Workspace,” *IEEE International Conference on Robotics and Automation (ICRA)*, Brisbane, Australia, pp. 6745–6751, May 2018.
49. George Karavas, Daniel T. Larsson, and **Panagiotis Artemiadis***, “A hybrid brain-machine interface for control of robotic swarms: Preliminary results,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pp. 5065–5075, 2017.
48. Justin Hunt, **Panagiotis Artemiadis***, and Hyunglae Lee, “Development of a novel shoulder exoskeleton using parallel actuation and slip,” *ASME Dynamic Systems and Control Conference (DSCC)*, 2016.
47. Jeffrey Skidmore and **Panagiotis Artemiadis***, “Sudden changes in walking surface compliance evoke contralateral EMG in a hemiparetic walker: a case study of inter-leg coordination after neurological injury,” *Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, 2016.

46. Jeffrey Skidmore and **Panagiotis Artemiadis***, “Unilateral Walking Surface Stiffness Perturbations Evoke Brain Responses: Toward Bilaterally Informed Robot-assisted Gait Rehabilitation,” *IEEE International Conference on Robotics and Automation (ICRA)*, 2016.
45. George K. Karavas and **Panagiotis Artemiadis***, “On the Effect of Swarm Collective Behavior on Human Perception: Towards Brain-Swarm Interfaces,” *IEEE Conference on Multisensor Fusion and Integration (MFI)*, 2015.
44. Mark Ison and **Panagiotis Artemiadis***, “Multi-Directional Impedance Control with Electromyography for Compliant Human-Robot Interaction,” *IEEE International Conference on Rehabilitation Robotics (ICORR)*, 2015.
43. Alison Gibson[†] and **Panagiotis Artemiadis***, “Neural Closed-loop Control of a Hand Prosthesis using Cross-modal Haptic Feedback,” *IEEE International Conference on Rehabilitation Robotics (ICORR)*, 2015.
42. Jeffrey Skidmore and **Panagiotis Artemiadis***, “Leg Muscle Activation Evoked by Floor Stiffness Perturbations: A Novel Approach to Robot-assisted Gait Rehabilitation,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 6463–6468, 2015.
41. Mark Ison, Ivan Vujaklija, Bryan Whitsell, Dario Farina, and **Panagiotis Artemiadis***, “Simultaneous Myoelectric Control of a Robot Arm using Muscle Synergy-Inspired Inputs from High-Density Electrode Grids,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 6469–6474, 2015.
40. Bryan Whitsell and **Panagiotis Artemiadis***, “On the Role Duality and Switching in Human-Robot Cooperation: An adaptive approach,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 3770–3775, 2015.
39. Mark Ison and **Panagiotis Artemiadis***, “Enhancing Practical Multifunctional Myoelectric Applications through Implicit Motor Control Training Systems,” *36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, pp. 3525–3528, 2014.
38. Alison Gibson[†] and **Panagiotis Artemiadis***, “Object Discrimination Using Optimized Multi-frequency Auditory Cross-Modal Haptic Feedback,” *36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, pp. 6505–6508, 2014.
37. Jeffrey Skidmore, Andrew Barkan[†], and **Panagiotis Artemiadis***, “Investigation of Contralateral Leg Response to Unilateral Stiffness Perturbations using a Novel Device,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pp. 2081–2086, 2014.
36. Mark Ison, Chris Wilson Antuvan, and **Panagiotis Artemiadis***, “Learning Efficient Control of Robots Using Myoelectric Interfaces,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 2880–2885, 2014.
35. Andrew Barkan[†], Jeffrey Skidmore, and **Panagiotis Artemiadis***, “Variable Stiffness Treadmill (VST): a Novel Tool for the Investigation of Gait,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 2838–2843, 2014.
34. Mark Ison and **Panagiotis Artemiadis***, “Beyond user-specificity for EMG decoding using multiresolution muscle synergy analysis,” *ASME Dynamic Systems and Control Conference (DSCC)*, 2013.
33. Harshil Patel, Gerald D. O’Neill[†], and **Panagiotis Artemiadis***, “Regulation of 3D human arm impedance through muscle co-contraction,” *ASME Dynamic Systems and Control Conference (DSCC)*, 2013.
32. Alison Gibson[†], Mark Ison, and **Panagiotis Artemiadis***, “User-independent hand motion classification with electromyography,” *ASME Dynamic Systems and Control Conference (DSCC)*, 2013.

31. Stephen Warren[†] and **Panagiotis Artemiadis***, “Bio-inspired robot control for human-robot bi-manual manipulation,” *ASME Dynamic Systems and Control Conference (DSCC)*, 2013.
30. Minas V. Liarokapis*, **Panagiotis Artemiadis**, and Kostas J. Kyriakopoulos, “Telemanipulation with the DLR/HIT II Robot Hand Using a Dataglove and a Low Cost Force Feedback Device,” *IEEE Mediterranean Conference on Control and Automation (MED)*, pp. 431–436, 2013.
29. Minas V. Liarokapis*, **Panagiotis Artemiadis**, and Kostas J. Kyriakopoulos, “Task Discrimination from Myoelectric Activity: A Learning Scheme for EMG based Interfaces,” *IEEE International Conference on Rehabilitation Robotics (ICORR)*, 2013.
28. Gerald O’Neill[†], Harshil Patel, and **Panagiotis Artemiadis***, “An intrinsically safe mechanism for physically coupling humans with robots,” *IEEE International Conference on Rehabilitation Robotics (ICORR)*, 2013.
27. Minas V. Liarokapis*, **Panagiotis Artemiadis**, and Kostas J. Kyriakopoulos, “Quantifying Anthropomorphism of Robot Hands,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 2041–2046, 2013.
26. Pantelis Katsiaris*, **Panagiotis Artemiadis**, and Kostas Kyriakopoulos, “Relating Postural Synergies to Low-D Muscular Activations: Towards Bio-inspired Control of Robotic Hands,” *IEEE International Conference on BioInformatics and BioEngineering*, pp. 245–250, 2012.
25. Minas Liarokapis*, **Panagiotis Artemiadis**, and Kostas Kyriakopoulos, “Functional Anthropomorphism for Human to Robot Motion Mapping: The Case of Robotic Arm Hand Systems,” *IEEE International Symposium on Robot and Human Interactive Communication (Ro-Man)*, pp. 31–36, 2012.
24. Minas Liarokapis*, **Panagiotis Artemiadis**, Pantelis Katsiaris, and Kostas Kyriakopoulos, “Learning Task-Specific Models for Reach to Grasp Movements: Towards EMG-Based Teleoperation of Robotic Arm-Hand Systems,” *IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob)*, pp. 1287–1292, 2012.
23. Minas Liarokapis*, **Panagiotis Artemiadis**, Pantelis Katsiaris, Kostas Kyriakopoulos, and Elias Manolakos, “Learning Human Reach-to-Grasp Strategies: Towards EMG-based Control of Robotic Hands,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 2287–2292, 2012.
22. Ioannis Filippidis, Kostas Kyriakopoulos*, and **Panagiotis Artemiadis**, “Navigation Functions Learning from Experiments: Application to Anthropomorphic Grasping,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 570–575, 2012.
21. **Panagiotis Artemiadis*** and Hermano Igo Krebs, “On the interlimb coordination and synchronization during gait,” *33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, pp. 1571–1574, 2011.
20. Hermano I. Krebs, Stefano Rossi, Seung-Jae Kim, **Panagiotis Artemiadis***, Dustin Williams, Enrico Castelli, and Paolo Cappa, “Pediatric Anklebot,” *IEEE 12th International Conference on Rehabilitation Robotics (ICORR)*, 2011.
19. **Panagiotis Artemiadis*** and Hermano Igo Krebs, “Interlimb coordination evoked by unilateral mechanical perturbation during body-weight supported gait,” *IEEE 12th International Conference on Rehabilitation Robotics (ICORR)*, 2011.
18. **Panagiotis Artemiadis*** and Hermano Igo Krebs, “On the potential field-based control of the MIT-Skywalker,” *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 1427–1432, 2011.

17. **Panagiotis Artemiadis***, Pantelis T. Katsiaris, Minas V. Liarokapis, and Kostas J. Kyriakopoulos, "On the Effect of Human Arm Manipulability in 3D Force Tasks: Towards Force-controlled Exoskeletons," *IEEE International Conference on Robotics and Automation (ICRA)*, pp. 3784–3789, 2011.
16. **Panagiotis Artemiadis*** and Hermano Igo Krebs, "On the control of the MIT-Skywalker," *32nd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC)*, pp. 1287–1291, 2010.
15. Pantelis T. Katsiaris, **Panagiotis Artemiadis***, and Kostas J. Kyriakopoulos, "Modeling Anthropomorphism in Dynamic Human Arm Movements," *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pp. 3507–3512, 2010.
14. **Panagiotis Artemiadis***, Pantelis T. Katsiaris, Minas V. Liarokapis, and Kostas J. Kyriakopoulos, "Impedance: Characterization and Modeling in 3D Space," *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pp. 3103–3108, 2010.
13. **Panagiotis Artemiadis*** and Hermano Igo Krebs, "Impedance-based control of the MIT-Skywalker," *ASME Dynamic Systems and Control Conference (DSCC)*, 2010.
12. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, "A Bio-inspired Filtering Framework for the EMG-based Control of Robots," *17th Mediterranean Conference on Control and Automation*, Thessaloniki, Greece, pp. 1155–1160, June 2009.
11. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, "Assessment of Muscle Fatigue using a Probabilistic Framework for an EMG-based Robot Control Scenario," *IEEE International Conference on Bioinformatics and Bioengineering*, Athens, Greece, October 2008. **[Second Best Student Paper]**
10. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, "Estimating Arm Motion and Force using EMG signals: On the Control of Exoskeletons," *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Nice, France, pp. 279–284, September 2008. **[Best Application Paper Finalist]**
9. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, "EMG-based Position and Force Control of Coupled Human-Robot Systems: Towards EMG-controlled Exoskeletons," *International Symposium on Experimental Robotics (ISER)*, Athens, Greece, July 2008.
8. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, "EMG-based Teleoperation of a Robot Arm Using Low-Dimensional Representation," *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, San Diego, CA, USA, pp. 489–495, October 2007.
7. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, "EMG-based Position and Force Control of a Robot Arm: Application to Teleoperation and Orthosis," *IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*, Switzerland, pp. 1–6, September 2007. **[Best Paper Finalist]**
6. Nikolaos A. Bompos, **Panagiotis Artemiadis***, Apollon S. Oikonomopoulos, and Kostas J. Kyriakopoulos, "Modeling, Full Identification and Control of the Mitsubishi PA-10 Robot Arm," *IEEE/ASME International Conference on Advanced Intelligent Mechatronics (AIM)*, Switzerland, pp. 1–6, September 2007.
5. **Panagiotis Artemiadis***, Gregory Shakhnarovich, Carlos Vargas-Irwin, John Donoghue, and Michael J. Black, "Decoding Grasp Aperture from Motor-Cortical Population Activity," *IEEE EMBS Conference on Neural Engineering*, Hawaii, pp. 518–521, May 2007.
4. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, "EMG-based teleoperation of a robot arm in planar catching movements using ARMAX model and trajectory monitoring techniques," *IEEE International Conference on Robotics and Automation (ICRA)*, Orlando, FL, pp. 3244–3249, May 2006.

3. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, “Teleoperation of a Robot Arm in 2D Catching Movements using EMG Signals and a Bio-inspired Motion Law,” *IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob)*, Pisa, Italy, pp. 41–46, February 2006.
2. I. Sardellitti, E. Cattin*, **Panagiotis Artemiadis**, S. Roccella, F. Vecchi, M. C. Carrozza, K. J. Kyriakopoulos, and P. Dario, “Description, characterization and assessment of a bio-inspired shoulder joint-first link robot for neuro-robotic applications,” *IEEE/RAS-EMBS International Conference on Biomedical Robotics and Biomechatronics (BioRob)*, Pisa, Italy, pp. 112–117, February 2006.
1. **Panagiotis Artemiadis*** and Kostas J. Kyriakopoulos, “Teleoperation of a Robot Manipulator using EMG Signals and a Position Tracker,” *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, Edmonton, Canada, pp. 1003–1008, August 2005.

Non-Refereed Conference and Workshop Abstracts

28. Charikleia Angelidou and **Panagiotis Artemiadis***, “A Human-in-the-loop Algorithm for Predicting Surface Transitions in Robotic Lower Limb Prosthetics,” *Military Health System Research Symposium (MHSRS)*, Kissimmee, FL, 2025.
27. Vaughn Chambers and **Panagiotis Artemiadis**, “A neuro-musculoskeletal model predicts the effect of a new type of perturbation on human walking,” *NSF DARE Conference: Transformative Opportunities for Modeling in Neurorehabilitation*, Los Angeles, CA, March 3–4, 2023.
26. **Panagiotis Artemiadis***, Chuong H. Nguyen, and George K. Karavas, “Brain-computer interface methods for imagined speech using Riemannian manifold feature classification,” In N. G. Hatsopoulos, J. S. Pezaris (Eds.), *Proceedings of AREADNE 2020*, Santorini, Greece, June 16–20, 2020.
25. **Panagiotis Artemiadis***, Chuong H. Nguyen, and George K. Karavas, “Novel approach to decoding neural activity to multi-degree of freedom BCI: methods and metrics of mutual adaptation in humans and machines,” In N. G. Hatsopoulos, J. S. Pezaris (Eds.), *Proceedings of AREADNE 2018*, Santorini, Greece, June 20–24, 2018.
24. Chuong H. Nguyen, George K. Karavas, and **Panagiotis Artemiadis***, “Adaptive Multi-Degree of Freedom BCI using Online Learning: Towards Novel Methods and Metrics of Mutual Adaptation between Humans and Machines for BCI,” *Southwest Robotics Symposium*, Tempe, AZ, 2018.
23. Justin Hunt, **Panagiotis Artemiadis***, and Hyunglae Lee, “Optimizing Stiffness of a Novel Parallel-Actuated Robotic Shoulder Exoskeleton for a Desired Task or Workspace,” *Southwest Robotics Symposium*, Tempe, AZ, 2018.
22. J. Klein, Bryan Whitsell, **Panagiotis Artemiadis***, and C. Buneo, “3D assessment of upper limb proprioception,” *Southwest Robotics Symposium*, Tempe, AZ, 2018.
21. Linda Fou[†], Jeffrey Skidmore, and **Panagiotis Artemiadis***, “The Variable Impedance Treadmill (VIT) for Robot-assisted Rehabilitation,” *Biomedical Engineering Society (BMES)*, 2017.
20. Jeffrey Skidmore and **Panagiotis Artemiadis***, “Sudden unilateral changes in walking surface compliance evoke contralateral EMG in a hemiparetic stroke patient: a case study of inter-leg coordination after neurological injury,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2017.
19. Joshua D. Klein, Bryan Whitsell, Megha Patel, **Panagiotis Artemiadis**, and Christopher A. Buneo, “Gravitational Effects on Proprioceptive Sensitivity,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2017.

18. George K. Karavas, Chuong Nguyen, and **Panagiotis Artemiadis***, “Controlling a Swarm of Quadrotors Using Brain Signals,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2017.
17. Justin Hunt, **Panagiotis Artemiadis**, and Hyunglae Lee, “Stiffness Analysis of a Novel Parallel Actuated Wearable Robotic Shoulder,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2017.
16. Chuong H. Nguyen and **Panagiotis Artemiadis***, “Comparison of EEG Feature Descriptors and Discriminant Analysis on Riemannian Manifold,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2017.
15. Jeffrey Skidmore, Andrew Barkan[†], Adrian Ion[†], and **Panagiotis Artemiadis***, “Inter-leg coordination in human walking: Toward a novel approach for robot-assisted gait rehabilitation,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2016.
14. Bryan Whitsell and **Panagiotis Artemiadis***, “Robot human interaction: EEG and correct vs. incorrect motion,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2016.
13. Justin Hunt, Hyunglae Lee, and **Panagiotis Artemiadis***, “Development of a novel parallel manipulator using modular motion coupling and its implementation in an exoskeleton shoulder device,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2016.
12. Ioannis Kaneris[†] and **Panagiotis Artemiadis**, “Control of Prosthetic Grasp Strength Using Audio-Feedback,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2015.
11. Ryan Frost[†], Jeffrey Skidmore, Marco Santello, and **Panagiotis Artemiadis**, “Sensorimotor control of gait: A novel approach for the study of the interplay of visual and proprioceptive feedback,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2015.
10. Jeffrey Skidmore, Andrew Barkan[†], and **Panagiotis Artemiadis**, “Unilateral Floor Stiffness Perturbations Systematically Evoke Contralateral Leg Muscle Responses: Toward a New Approach to Robot-assisted Gait Therapy,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2015.
9. Mark Ison, Ivan Vujaklija, Bryan Whitsell, Dario Farina, and **Panagiotis Artemiadis**, “Muscle Synergy-Inspired Inputs for Robust Simultaneous Myoelectric Control of a Robot Arm,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2015.
8. Andrew Barkan[†], Jeffrey Skidmore, and **Panagiotis Artemiadis**, “Variable Stiffness Treadmill (VST): a Novel Tool for the Investigation of Gait,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2014.
7. Keivan Mojtahedi, Bryan Whitsell, **Panagiotis Artemiadis**, and Marco Santello, “Impedance-based communication for human-robot interaction,” *Society for Neuroscience*, 2014.
6. Alycia Galley, Mark Ison, Marco Santello, and **Panagiotis Artemiadis**, “An EMG-based state machine decoder for the detection of hand posture and grip force for reach-to-grasp tasks,” *Society for Neuroscience*, 2014.
5. Mark Ison, Bryan Whitsell, and **Panagiotis Artemiadis**, “Toward Robust and Intuitive Myoelectric Robot Control Through Implicit Motor Control Training Systems,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2014.
4. Alison Gibson[†] and **Panagiotis Artemiadis**, “Neural Closed-Loop Control of a Hand Prosthesis using Cross-modal Haptic Feedback,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2014.
3. Mark Ison and **Panagiotis Artemiadis**, “Advances in EMG control interfaces: Beyond decoding, beyond subject specificity,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2013.
2. Harshil Patel, Gerald O’Neill[†], and **Panagiotis Artemiadis**, “3D human arm impedance: What we really control?,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2013.
1. Stephen Warren[†] and **Panagiotis Artemiadis**, “Bio-inspired robot control for human-robot bi-manual manipulation,” *ASU Rehabilitation Robotics Workshop*, Tempe, AZ, 2013.

Non-Refereed Magazine Articles

6. **Panagiotis Artemiadis***, “Robotics and power-saving in industry,” *Plant Management*, March 2007.
5. **Panagiotis Artemiadis***, “Automated storage and retrieval systems,” *Plant Management*, December 2006.
4. **Panagiotis Artemiadis***, “Robotic welding,” *Plant Management*, September 2006.
3. **Panagiotis Artemiadis***, “Robotics and machine vision: Design – Industrial applications,” *Plant Management*, April 2006.
2. **Panagiotis Artemiadis***, “Machine vision: Application in industry,” *Plant Management*, January 2006.
1. **Panagiotis Artemiadis***, “Control systems in industry: Application of closed-loop systems – Robotics,” *Plant Management*, October 2005.

Patents

Issued Patents: 8 Full Applications (Pending): 2 Provisional Applications: 2

Underline Graduate student advised † Undergraduate student advised

Issued Patents

8. **Panagiotis Artemiadis**, Hyunglae Lee, and Justin Hunt, “Mechanism for alleviating the effects of joint misalignment between users and wearable robots”, U.S. Patent No. 10,814,473, 27 Oct. 2020.
7. **Panagiotis Artemiadis**, Hyunglae Lee, and Justin Hunt, “Spherical parallel manipulator architecture for shoulder robotic exoskeleton”, U.S. Patent No. 10,800,031, 13 Oct. 2020.
6. **Panagiotis Artemiadis** and Georgios Konstantinos Karavas, “Systems and methods for a hybrid brain interface for robotic swarms using EEG signals and an input device”, U.S. Patent No. 10,712,820, 14 Jul. 2020.
5. **Panagiotis Artemiadis** and Daniel Larsson, “Systems and methods for dynamics, modeling, simulation and control of mid-flight coupling of quadrotors”, U.S. Patent No. 10,642,285, 5 May 2020.
4. **Panagiotis Artemiadis** and Mark Ison, “Systems and methods for simultaneous position and impedance control for myoelectric interfaces”, U.S. Patent No. 10,610,099, 7 Apr. 2020.
3. **Panagiotis Artemiadis** and Jeffrey Skidmore, “Systems and methods for gait rehabilitation using mechanical perturbations”, U.S. Patent No. 9,707,442, 18 Jul. 2017.
2. **Panagiotis Artemiadis** and Andrew Barkan[†], “Variable Stiffness Treadmill System”, U.S. Patent No. 9,757,610, 12 Sep. 2017.
1. **Panagiotis Artemiadis** and Gerald O’Neill[†], “Coupling System”, U.S. Patent No. 9,833,895, 5 Dec. 2017.

Full Patent Applications (Pending)

2. **Panagiotis Artemiadis**, Bradley Hobbs, Vaughn Chambers, William Gaither[†], and Zachary Thé[†], “A Dual-Belt Treadmill System with Controllable Stiffness”, United States Patent Application (Pending; converted from Provisional Application UD23-46), 2023.
1. **Panagiotis Artemiadis** and Charikleia Angelidou, “Systems for real-time prediction of transitions to rigid and compliant surfaces using myoelectric and kinematic data”, United States Patent Application (Pending; converted from Provisional Application No. 63453928), 2023.

Provisional Patent Applications

2. **Panagiotis Artemiadis** and Mark Ison, “Functional prosthetic device training using an implicit motor control training system and electromyography”, United States Patent Application No. 15/245,108 (Pending), 2017.
1. **Panagiotis Artemiadis** and Alison Gibson[†], “Cross-modal feedback architecture for perceiving force information through sound”, U.S. Patent Office, Provisional Application No. 61/896,505, 2013.

Research Activities – Sponsored Projects

Total Awarded Funds: \$37,526,124 Artemiadis' Share: \$6,438,292 Total Projects: 24 (16 completed) Roles: 17 PI, 5 co-PI, 2 SP

Note: As Lead PI, total award amounts represent full project budgets administered under Dr. Artemiadis' direction. **Share** indicates the direct budgetary allocation designated to Dr. Artemiadis' laboratory.

PI: Principal Investigator **co-PI:** Co-Principal Investigator **SP:** Senior Personnel / Co-Investigator

Active Grants

8. “NSF AI Institute for Human-AI Cooperation”, Award #: 2433450
Senior Personnel | Jul 2026 – Jun 2031 | **National Science Foundation (NSF), IIS**
Total Funding: \$21,500,000 | **Artemiadis Share:** \$146,420
Goal: Promotes national leadership in artificial intelligence by transforming AI into an adaptive teammate allowing human users and AI systems to interact in dynamic collaboration.
7. “Preventing Falls in Real-Time: Translating a Predictive, Embedded Terrain-Recognition System for Lower-Limb Prosthetics”
Principal Investigator | Sep 2026 – Aug 2027 | **Institute for Engineering Driven Health (IEDH)**
Total Funding: \$74,973 | **Artemiadis Share:** \$74,973
Goal: Translates lab-validated predictive terrain-recognition algorithms into a fully untethered “AI Sensory Retrofit Module” Minimum Viable Product (MVP) to actively prevent falls in lower-limb amputees.
6. “2026 NSF Mind, Machine and Motor Nexus (M3X) Principal Investigators' Meeting; Alexandria, Virginia; February 2026”, Award #: 2538205
co-Principal Investigator | Aug 2025 – Aug 2026 | **National Science Foundation (NSF), M3X**

Total Funding: \$197,950 | **Artemiadis Share:** \$15,018

Goal: Organizes and hosts the inaugural 2026 NSF M3X Principal Investigators' Meeting to foster collaboration, showcase research, and inspire future work at the intersection of human and intelligent machine interaction.

5. "SCH: Collaborative Research: A Multi-level Control Architecture of Agile Robotic Prostheses for Real-World Mobility over Challenging and Uneven Terrains", Award #: 2500472

Principal Investigator and Lead | Aug 2025 – Jul 2029 | **National Science Foundation (NSF), SCH**

Total Funding: \$1,000,000 | **Artemiadis Share:** \$334,000

Goal: Enhances independence, safety, and quality of life of individuals with lower-limb amputations by developing adaptive control strategies for robotic prostheses that navigate real-world terrain.

4. "Robot-induced personalized ground stiffness perturbations for long-term gait adaptation and rehabilitation after stroke", Award #: 2415093

Principal Investigator | Aug 2024 – Jul 2027 | **National Science Foundation (NSF), CBET - DARE**

Total Funding: \$486,830 | **Artemiadis Share:** \$486,830

Goal: Enhances post-stroke gait recovery by improving balance, propulsion, and symmetry using the Variable Stiffness Treadmill 2 (VST 2) to introduce vertical stiffness perturbations.

3. "ART: Translating Engineering Driven Health Initiatives From Idea to Impact", Award #: 2331440
Senior Personnel | Feb 2024 – Jan 2028 | **National Science Foundation (NSF), ITE**

Total Funding: \$6,283,700 | **Artemiadis Share:** \$0 (cost-share only)

Goal: Introduces an accelerated innovation ecosystem where unmet needs and use-defined gaps derived from stakeholders and corporate partners provide inspiration for translational research.

2. "Model-informed patient-specific rehabilitation using robotics and neuromuscular modeling", Award #: 1R01HD111071-01

Principal Investigator | Sep 2022 – Sep 2026 | **NIH - NICHD**

Total Funding: \$1,178,558 | **Artemiadis Share:** \$456,276

Goal: Advances therapeutic engineering for hemiparetic gait by combining predictive modeling, in-silico optimization, and experimental validation of robot-assisted interventions.

1. "SCH: INT: Pediatric motor rehabilitation via socially interacting robot swarms", Award #: 2014264

co-Principal Investigator | Oct 2020 – Sep 2026 | **National Science Foundation (NSF), CISE - IIS SCH**

Total Funding: \$1,099,340 | **Artemiadis Share:** \$341,985

Goal: Enabled the development of an enriched infant motor rehabilitation environment utilizing socially interacting robotic toy swarms in play-based activities.

Completed Grants

16. "MRI: Development of an Integrated Instrument for Testing Safety and Robustness of Robotic Co-Workers in Dynamic Environments", Award #: 2018905

co-Principal Investigator | Oct 2020 – Sep 2024 | **National Science Foundation (NSF), CISE - CNS MRI**

Total Funding: \$551,682 | **Artemiadis Share:** \$197,681

Goal: Developed a fully integrated sensing and control instrument to evaluate robotic algorithm performance in response to systematically induced dynamic perturbations.

15. "Robotics Innovation Challenge"

Principal Investigator | Jun 2020 – Jun 2023 | **Graduate College, University of Delaware**

Total Funding: \$40,000 | **Artemiadis Share:** \$40,000

Goal: Established a robotics innovation challenge for graduate students in the Master of Science in Robotics program at the University of Delaware.

14. “NRI: INT: COLLAB: Anthropomorphic robotic ankle prosthesis with programmable materials”, Award #: 2025797 (prev. 1830256)
Principal Investigator (UD Lead) | Sep 2018 – Sep 2024 | **National Science Foundation (NSF), CISE - IIS NRI**
Total Funding: \$1,512,182 | **Artemiadis Share:** \$832,000
Goal: Created a customizable agile ankle-foot prosthesis with modular design and impedance modulation decoupled from torque control.
13. “DURIP: Optical robot localization system for research on human-swarm interaction and interfaces for optimum human-machine teaming”, Award #: FA9550-18-1-0464
Principal Investigator | Jun 2018 – Jun 2019 | **Air Force Office of Scientific Research (AFOSR)**
Total Funding: \$268,496 | **Artemiadis Share:** \$268,496
Goal: Acquired a motion capture system to evaluate computational methods for reconstructing high-level goals from macroscopic analysis of swarm behaviors.
12. “Multi-modal human-swarm interfaces for an active swarm tactics ecosystem”
Principal Investigator | Jun 2018 – May 2019 | **DOD Seed Funding, Fulton Schools of Engineering, ASU**
Total Funding: \$40,000 | **Artemiadis Share:** \$40,000
Goal: Advanced scientific knowledge of manned-unmanned teaming and developed methods allowing humans to control tactics of multi-agent robotic teams.
11. “Small legged robot - Nao”
Principal Investigator | Jun 2018 – May 2019 | **Minor Research Infrastructure (mRI), ASU**
Total Funding: \$6,000 | **Artemiadis Share:** \$6,000
Goal: Procured a humanoid Nao robotic system to facilitate research on bipedal robotic systems.
10. “A human-machine symbiotic system for the extraction of high-level behaviors from a macroscopic view of swarms”, Award #: FA9550-18-1-0221
Principal Investigator | May 2018 – May 2023 | **Air Force Office of Scientific Research (AFOSR)**
Total Funding: \$584,560 | **Artemiadis Share:** \$584,560
Goal: Developed computational methods to decipher and reconstruct high-level goals from macroscopic analysis of collective behaviors in swarms.
9. “Hybrid Brain-Machine Interfaces for Controlling Robotic Swarms”
Principal Investigator | Feb 2018 – Feb 2020 | **ASU & ABC Robotics Center (Ben-Gurion Univ.)**
Total Funding: \$30,000 | **Artemiadis Share:** \$30,000
Goal: Developed control algorithms for hybrid multi-agent systems using brain-computer interfaces.
8. “Modeling and Analysis of Sensorimotor Dynamics in Inter-leg Coupling Leads to a Novel Model-based Approach to Human Gait Rehabilitation”, Award #: 2015786 (prev. 1727838)
Principal Investigator | Sep 2017 – Sep 2022 | **National Science Foundation (NSF), CMMI - DCSD**
Total Funding: \$373,953 | **Artemiadis Share:** \$373,953
Goal: Investigated inter-leg coordination mechanisms during gait to build foundations for transformative gait retraining methods.
7. “PFI:BIC - ASPIRE: Hierarchical control of a Smart ankle-foot Prosthesis that supports Increased mobility for REal-life activities”, Award #: 2020009 (prev. 1718114)

Principal Investigator | Aug 2017 – Dec 2024 | **National Science Foundation (NSF), IIP**
Total Funding: \$1,231,900 | **Artemiadis Share:** \$1,231,900
Goal: Developed and evaluated a smart powered ankle-foot prosthesis supporting increased mobility for daily real-life activities.

6. “Perception and action interfaces in the symbiosis of humans and multi-agent systems”, Award #: FA9550-14-1-0149

Principal Investigator | Sep 2014 – Sep 2017 | **AFOSR Young Investigator Program (YIP)**
Total Funding: \$360,000 | **Artemiadis Share:** \$360,000
Goal: Developed intelligent perception interfaces for effective interaction between humans and multi-agent systems.

5. “Optimizing human supervision of multi-agent systems”, Award #: D14AP00068

Principal Investigator | Sep 2014 – Sep 2017 | **DARPA Young Faculty Award (YFA)**
Total Funding: \$500,000 | **Artemiadis Share:** \$500,000

Goal: Optimized human-swarm control interfaces and supervisory strategies for multi-agent systems.

4. “Neural correlates of cooperative manipulative actions”, Award #: GES0255

co-Investigator | Jun 2014 – Dec 2015 | **Arizona Department of Health Services**
Total Funding: \$100,000 | **Artemiadis Share:** \$33,000

Goal: Examined neural correlates of joint manipulative actions between robots and primates.

3. “Fulton Faculty Development Chair funding”

Principal Investigator | Jun 2015 – Jun 2018 | **Ira A. Fulton Schools of Engineering, ASU**
Total Funding: \$30,000 | **Artemiadis Share:** \$30,000

Goal: Supported Faculty Development Chair initiatives to seed innovative teaching and research programs.

2. “Robot-assisted gait rehabilitation”

Principal Investigator | Jun 2013 – Jun 2014 | **Piper Health Solutions Seed Program, ASU**
Total Funding: \$50,000 | **Artemiadis Share:** \$50,000

Goal: Applied sensorimotor control principles to gait rehabilitation using a variable stiffness treadmill.

1. “3-D Projection System for Virtual Reality Applications”

co-Investigator | Feb 2012 | **Fulton Schools of Engineering Infrastructure Competition, ASU**

Total Funding: \$26,000 | **Artemiadis Share:** \$5,200

Goal: Acquired 3D projection infrastructure for virtual reality applications in robotics and motor control research.

Invited Lectures and Presentations

Total Invited Talks: 36 Keynote / Plenary / Distinguished: 3 Academic Seminars: 24 Workshops & Industry: 9
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36. “Toward Human-Robot Symbiosis: Interactive Control for Mobility, Collaboration, and Rehabilitation”, Mechanical Engineering Department, National Technical University of Athens, Athens, Greece, 2026.

35. “Toward Human-Robot Symbiosis: Interactive Control for Mobility, Collaboration, and Rehabilitation”, Autonomous and Intelligent Robotics Lab (AIR Lab), Lehigh University, Bethlehem, PA, 2026.

34. "Toward Human-Robot Symbiosis: Interactive Control for Mobility, Collaboration, and Rehabilitation", *Distinguished Speaker*, Mechanical Engineering Department, Colorado School of Mines, Golden, CO, 2025.
33. "Human gait rehabilitation using robotics and neuromuscular modeling", *Keynote Speaker*, XII Congreso Iberoamericano de Tecnologías de Apoyo a la Discapacidad (Ibero-American Congress of Support Technologies for Disability), São Carlos, São Paulo, Brazil, 2023.
32. "Human-Oriented Robotics & Control", CHARM/CPI/DEI REU Program, University of Delaware, Newark, DE, 2023.
31. "Human gait rehabilitation using robotics and neuromuscular modeling", BIOMS Program, University of Delaware, Newark, DE, 2023.
30. "Human-Oriented Robotics", Hellenic Institute of Advanced Studies, Athens, Greece, 2022.
29. "Modeling and control of human-robot interaction and interfaces", University of Delaware, Newark, DE, 2019.
28. "Modeling and control of human-robot interaction and interfaces", Rice University, Houston, TX, 2019.
27. "Advanced human-robot control and interaction interfaces", University of California, Riverside, Riverside, CA, 2018.
26. "Advanced human-robot control and interaction interfaces", National Technical University of Athens, Athens, Greece, 2018.
25. "Advanced human-robot control and interaction interfaces", MIT Lincoln Laboratory, Lexington, MA, 2017.
24. "Advanced Human-Robot Control Interfaces", University of Nebraska Omaha, Omaha, NE, 2017.
23. "Using your brain to control a swarm of drones", *Plenary Speaker*, Commercial UAV Expo 2017, Las Vegas, NV, 2017.
22. "On the effect of walking surface stiffness on inter-limb coordination in human walking: a unique perspective to robotic gait rehabilitation", Workshop on Physical Human-Robot & Human-Telerobot Interaction: From Theory to Application for Neuro-rehabilitation, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Vancouver, Canada, 2017.
21. "On the effect of walking surface stiffness on inter-limb coordination in human walking: a unique perspective to robotic gait rehabilitation", Workshop on Adaptive Control Methods in Assistive Technologies, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Vancouver, Canada, 2017.
20. "Advanced Human-Robot Control and Interaction Interfaces", Council of Scientific Society Presidents (CSSP) Frontiers of Science Meeting, Washington, DC, 2016.
19. "Advanced Human-Robot Control and Interaction Interfaces", University of Maryland, College Park, MD, 2016.
18. "On the effect of walking surface stiffness on inter-limb coordination in human walking: a unique perspective to robotic gait rehabilitation", Barrow Neurological Institute Rehabilitation Symposium, Phoenix, AZ, 2016.
17. "Perception and control interfaces between humans and robotic swarms", 27th Annual Association of Unmanned Vehicle Systems International (AUVSI) Pathfinder Chapter Symposium, Huntsville, AL, 2016.
16. "Interfacing Robots with Humans", Flextronics Inc., San Jose, CA, 2016.

15. “EMG Interfacing for Wearable Robotics and others”, Wearable Robotics Association Conference (WearRAcon), Phoenix, AZ, 2016.
14. “I, Robot”, SEMTE Freshman Lecture, Arizona State University, Tempe, AZ, 2015.
13. “Advanced human-robot control and interaction interfaces”, Department of Mechanical Engineering, Rice University, Houston, TX, 2015.
12. “Advanced human-robot control and interaction interfaces”, Department of Biomedical Engineering, University of Delaware, Newark, DE, 2015.
11. “Advanced human-machine decision and control interfaces”, 2014 Systems Engineering & Architecture Symposium, Raytheon Company, Tucson, AZ, 2014.
10. “Advances in EMG control interfaces: beyond decoding, beyond subject-specificity”, Workshop on Non-Invasive PNS-Machine Interfaces, International Conference on Rehabilitation Robotics (ICORR), University of Washington, Seattle, WA, 2013.
9. “Interfacing Humans with Robots! Ideas for applications in space”, SpaceVision 2013 (Space Based Robotics), Arizona State University, Tempe, AZ, 2013.
8. “From Neuro-robotic systems to Motor Rehabilitation”, ASU ASME Student Section, Arizona State University, Tempe, AZ, 2011.
7. “From Neuro-robotic systems to Motor Rehabilitation”, Control, Instrumentation, and Robotics (CIR) Seminar Series, Massachusetts Institute of Technology (MIT), Cambridge, MA, 2011.
6. “From Neuro-robotic systems to Motor Rehabilitation”, Department of Mechanical Engineering, Vanderbilt University, Nashville, TN, 2011.
5. “From Neuro-robotic systems to Motor Rehabilitation”, Department of Mechanical Engineering, Arizona State University, Tempe, AZ, 2011.
4. “Neuro-robotic systems in the service of the mobility impaired”, Department of Computer Science, Brown University, Providence, RI, 2011.
3. “Control methodologies for neuro-robotics systems”, Italian Institute of Technology (IIT), Genoa, Italy, 2008.
2. “Control methodologies for neuro-robotics systems”, Department of Mechanical Engineering, University of Maryland, College Park, MD, 2008.
1. “Service Robots for impaired humans: the dawn of advanced neuro-prosthetic robot hands”, International Expert Days on Service Robotics, Lauffen am Neckar, Germany, 2008.

Student Advising and Mentorship

Note: Underlined names indicate currently advised students.

Postdocs: 2

Ph.D. Chair / Co-Chair: 15 Graduated, 5 Current | **Ph.D. Committee:** 18 Graduated, 3 Current

M.S. Thesis Chair: 24 Graduated, 0 Current | **M.S. Thesis Committee:** 12 Graduated

Undergraduates: 66 Past, 4 Current

Postdoctoral associates advised

2. **Gustavo A. Cardona** (S'25 – S'26) — Univ. of Delaware, Mechanical Engineering
Role: Supervisor
1. **Chuong H Nguyen** (S'18 – S'20) — Arizona State Univ., Mechanical Engineering
Role: Supervisor

Ph.D. Students — Chair and Co-Chair

Current Ph.D. Students

5. **Udit Ekansh** (F'26 – Pres.) — Univ. of Delaware, Mechanical Engineering
Role: Chair · *Expected Graduation:* Spring 2030
4. **Weston Brousseau** (F'26 – Pres.) — Univ. of Delaware, Mechanical Engineering
Role: Chair · *Expected Graduation:* Spring 2030
3. **Jordan Witt** (F'25 – Pres.) — Univ. of Delaware, Biomedical Engineering
Role: Chair · *Expected Graduation:* Spring 2030
2. **Stergios Bachoumas** (F'22 – Pres.) — Univ. of Delaware, Mechanical Engineering
Role: Chair · *Expected Graduation:* Spring 2027
1. **Shubham Kumbhar** (F'22 – Pres.) — Univ. of Delaware, Mechanical Engineering
Role: Chair · *Expected Graduation:* Spring 2027

Graduated Ph.D. Students

15. **Chara Angelidou** (F'21 – Sum'26) — Univ. of Delaware, Mechanical Engineering (Role: Chair)
Thesis: “Toward intuitive control of ankle-foot prostheses: A high-level framework for intelligent and adaptive locomotion over compliant terrains”
14. **Jesus Orozco** (F'21 – S'26) — Univ. of Delaware, Mechanical Engineering (Role: Chair)
Thesis: “Quantifying and utilizing human trust in the adaptive control of robot swarms”
13. **Bradley Hobbs** (F'18 – F'24) — Univ. of Delaware, Mechanical Engineering (Role: Chair)
Thesis: “A visual feedback approach to training gait kinetics with robotic systems over compliant terrain”
12. **Vaughn Chambers** (F'19 – S'24) — Univ. of Delaware, Mechanical Engineering (Role: Chair)
Thesis: “The effects of unilaterally compliant terrain on human gait: Toward robot-assisted model-informed post-stroke gait rehabilitation”
11. **Chrysostomos Karakasis** (F'19 – Sum'24) — Univ. of Delaware, Mechanical Engineering (Role: Chair)
Thesis: “Robust and Stable Locomotion over Compliant Terrains: Application to Lower-limb Prostheses and Bipedal Robots”
10. **Emiliano Quinones Yumbla** (F'17 – S'23) — Arizona State Univ., Mechanical Engineering
Role: Co-Chair
9. **Matthew Cavorsi** (F'17 – S'23) — Harvard Univ., Mechanical Engineering (Role: Co-Chair)
Thesis: “Resilient Multi-Robot Coordination using Network Connectivity and Trust”
8. **Carly Thalman** (S'19 – S'21) — Arizona State Univ., Systems Engineering (Role: Co-Chair)
Thesis: “Soft Wearable Robotics for Ankle and Lower Body Gait Rehabilitation”
7. **Justin Hunt** (F'14 – F'20) — Arizona State Univ., Mechanical Engineering (Role: Co-Chair)
Thesis: “Development of a Novel Low Inertia Exoskeleton Device for Characterizing the Neuromuscular Properties of the Human Shoulder”
6. **Masood Nevisipour** (F'15 – F'19) — Arizona State Univ., Mechanical Engineering (Role: Co-Chair)
Thesis: “Advanced Prosthetics and Joint Mechanisms”
5. **Bryan Whitsell** (F'14 – F'17) — Arizona State Univ., Mechanical Engineering (Role: Chair)
Thesis: “Human-Robot Interaction Utilizing Asymmetric Cooperation and the Brain”
4. **Robert Holgate** (F'14 – Sum'17) — Arizona State Univ., Mechanical Engineering (Role: Co-Chair)
Thesis: “Advanced Prosthetics and Joint Mechanisms”
3. **Jeffrey Skidmore** (F'13 – S'17) — Arizona State Univ., Mechanical Engineering (Role: Chair)

Thesis: “On the Effect of Walking Surface Stiffness on Inter-leg Coordination during Human Walking”

Honors: Outstanding Graduate in MAE (2017), NSF GRFP Honorable Mention (2015)

2. **Mark Ison** (F’12 – S’15) — Arizona State Univ., Mechanical Engineering (Role: Chair)

Thesis: “On Enhancing Myoelectric Interfaces by Exploiting Motor Learning and Flexible Muscle Synergies”

Honors: Outstanding Graduate in MAE (2015), Outstanding Dissertation Award (2015)

1. **Jong-Hwa Lee** (S’12 – S’15) — Arizona State Univ., Mechanical Engineering (Role: Co-Chair)

Thesis: “A musculoskeletal model of the human hand to improve human-device interaction”

Ph.D. Students — Committee Member

21. **Hannah Cohen** (F’20 – Pres.) — University of Delaware, Mechanical Engineering (Expected graduation: Sum’26)
20. **Abhijeet Mangesh Kulkarni** (F’20 – Pres.) — University of Delaware, Mechanical Engineering (Expected graduation: Sum’26)
19. **Kristin Schmidt** (F’19 – Pres.) — University of Delaware, Mechanical Engineering (Expected graduation: Sum’26)
18. **GilHwan Kim** (F’20 – S’26) — University of Delaware, Mechanical Engineering (Graduated: S’26)
17. **Rebecca Nikonowicz** (F’19 – S’26) — University of Delaware, Mechanical Engineering (Graduated: S’26)
16. **Kleio Baxevani** (F’19 – S’24) — University of Delaware, Mechanical Engineering (Graduated: S’24)
15. **Varum Nalam** (F’16 – S’20) — Arizona State University, Mechanical Engineering (Graduated: S’20)
14. **Ragesh Kumar Ramachandran** (F’11 – F’18) — Arizona State University, Mechanical Engineering (Graduated: Fall ’18)
13. **Charla Lindley** (F’11 – S’18) — Arizona State University, Biomedical Engineering (Graduated: Spring ’18)
12. **Keivan Mojtahedi** (F’13 – S’18) — Arizona State University, Biomedical Engineering (Graduated: Spring ’18)
11. **Cody Barton** (F’14 – F’18) — Arizona State University, Biomedical Engineering (Graduated: Fall ’18)
10. **Nathan Cahill** (F’14 – Sum’17) — Arizona State University, Mechanical Engineering (Graduated: Sum ’17)
9. **Sean Wilson** (F’11 – S’17) — Arizona State University, Mechanical Engineering (Graduated: S’17)
8. **Michael Krzyzaniak** (F’14 – S’17) — Arizona State University, Media Arts and Sciences (Graduated: S’17)
7. **Juan Oziel De la Fuente Valadez** (F’11 – F’16) — Arizona State University, Mechanical Engineering (Graduated: F’16)
6. **Reza Kamyar** (F’11 – S’16) — Arizona State University, Mechanical Engineering (Graduated: S’16)

5. **Randall Hellman** (F'11 – S'16) — Arizona State University, Mechanical Engineering (Graduated: S'16)
4. **Minas Liarokapis** (F'11 – Sum'14) — National Technical University of Athens, Greece, Mechanical Engineering (Graduated: Sum '14)
3. **Ruben Ponce Wong** (F'11 – Sum'13) — Arizona State University, Mechanical Engineering (Graduated: Sum '13)
2. **Michael De Gregorio** (F'11 – Sum'13) — Arizona State University, Mechanical Engineering (Graduated: Sum '13)
1. **Qiushi Fu** (F'11 – Sum'13) — Arizona State University, Biomedical Engineering (Graduated: Sum '13)

M.S. Thesis Students — Chair and Co-Chair

24. **Camryn Scully** (S'23 – S'24) — University of Delaware, Mechanical Engineering, Master's in Robotics (*Role: Chair, Graduated: S'24*)
23. **Yashwanth Tekumudi** (S'23 – S'24) — University of Delaware, Mechanical Engineering, Master's in Robotics (*Role: Chair, Graduated: S'24*)
22. **Angela Kuczykowski** (F'20 – S'23) — University of Delaware, Mechanical Engineering, Master's in Robotics (*Role: Chair, Graduated: S'23*)
21. **Sujal Amrit Topno** (F'21 – S'23) — University of Delaware, Mechanical Engineering, Master's in Robotics (*Role: Chair, Graduated: S'23*)
20. **Robert Salati** (F'20 – S'23) — University of Delaware, Mechanical Engineering, Master's in Robotics (*Role: Chair, Graduated: S'23*)
19. **Zachary Thé** (F'20 – F'22) — University of Delaware, Mechanical Engineering, Master's in Robotics (*Role: Chair, Graduated: F'22*)
18. **Robert Samuelson** (F'20 – F'22) — University of Delaware, Mechanical Engineering, Master's in Robotics (*Role: Chair, Graduated: F'22*)
17. **Ajitesh Singh** (F'19 – S'21) — University of Delaware, Mechanical Engineering, Master's in Robotics (*Role: Chair, Graduated: S'21*)
16. **Junxin Wang** (F'18 – S'19) — Arizona State University, Mechanical Engineering (*Role: Chair, Graduated: S'19*)
15. **Harsh Lal** (F'18 – S'19) — Arizona State University, Mechanical Engineering (*Role: Chair, Graduated: S'19*)
14. **Ruby Afriyie Obeng** (F'18 – S'19) — Arizona State University, Biomedical Engineering (*Role: Chair, Graduated: S'19*)
13. **Sudhanshu Biyani** (F'18 – S'19) — Arizona State University, Mechanical Engineering (*Role: Chair, Graduated: S'19*)
12. **Akshay Singhvi** (F'18 – S'19) — Arizona State University, Mechanical Engineering (*Role: Chair, Graduated: S'19*)
11. **Akshat Baveja** (F'14 – Sum'17) — Arizona State University, Aerospace Engineering (*Role: Chair, Graduated: Sum '18*)

10. **Georgios Konstantinos Karavas** (F'14 – Sum'17) — Arizona State University, Aerospace Engineering (*Role*: Chair, *Graduated*: Sum '17, *Thesis*: “Brain Computer Interfaces for the Control of Robotic Swarms”)
9. **Daniel Larsson** (S'15 – S'16) — Arizona State University, Aerospace Engineering (*Role*: Chair, *Graduated*: S'16, *Thesis*: “Dynamics, modeling, simulation and control of mid-flight coupling of quadrotors”, *Current*: Ph.D. student at Georgia Tech)
8. **Andrew Barkan** (S'15 – S'16) — Arizona State University, Mechanical Engineering (*Role*: Chair, *Graduated*: S'16, *Awards*: Outstanding Graduate in MAE, Outstanding Thesis Award, Moeur Award, NSF Graduate Student Fellowship, *Current*: Ph.D. student at UC Berkeley)
7. **Aniket Shirsat** (S'15 – S'16) — Arizona State University, Mechanical Engineering (*Role*: Chair, *Graduated*: S'15)
6. **Jeremy Johnson** (F'14 – S'15) — Arizona State University, Mechanical Engineering (*Role*: Chair, *Graduated*: S'15)
5. **Bryan Whitsell** (F'12 – S'14) — Arizona State University, Mechanical Engineering (*Role*: Chair, *Graduated*: S'14, *Thesis*: “Human-Robot Cooperation: Communication and Leader-Follower Dynamics”)
4. **Yuting Wang** (S'12 – S'13) — Arizona State University, Mechanical Engineering (*Role*: Chair, *Graduated*: S'13, *Thesis*: “Closed-form Inverse Kinematic Solution for Anthropomorphic Motion in Redundant Robot Arms”)
3. **Chris Wilson Antuvan** (S'12 – S'13) — Arizona State University, Mechanical Engineering (*Role*: Chair, *Graduated*: S'13, *Thesis*: “EMG-based Robot Control Interfaces: Beyond Decoding”)
2. **Harshil Patel** (F'11 – S'13) — Arizona State University, Mechanical Engineering (*Role*: Chair, *Graduated*: S'13, *Thesis*: “Control of 3D Human Arm Impedance”)
1. **Vigneswaran Appia** (F'11 – S'13) — Arizona State University, Mechanical Engineering (*Role*: Chair, *Graduated*: S'13, *Thesis*: “Design and Construction of Treadmill with controllable stiffness”)

M.S. or M.S.E. Thesis Students — Committee Member

12. **Venkatraman Renganathan** (S'16 – S'17) — Arizona State University, Electrical Engineering (Graduated: S'17)
11. **Joe Campbell** (S'16 – S'17) — Arizona State University, Computer Science and Engineering (Graduated: S'17)
10. **Jesus Aldaco** (S'16 – S'17) — Arizona State University, Electrical Engineering (Graduated: S'17)
9. **Zhichao Li** (S'16 – S'17) — Arizona State University, Electrical Engineering (Graduated: S'17)
8. **Xianglong Lu** (S'16 – S'17) — Arizona State University, Electrical Engineering (Graduated: S'17)
7. **Philip New** (S'14 – S'15) — Arizona State University, Mechanical Engineering (Graduated: S'15)
6. **Chase Wheeler** (S'14 – F'14) — Arizona State University, Mechanical Engineering (Graduated: F'14)
5. **Shih-Kai Su** (F'11 – F'12) — Arizona State University, Computer Science and Engineering (Graduated: F'12)
4. **Mark Trudgen** (S'12 – F'12) — Arizona State University, Mechanical Engineering (Graduated: F'12)

3. **James Kristoff** (F'11 – F'11) — Arizona State University, Mechanical Engineering (Graduated: F'11)
2. **Chad Ripley** (F'11 – F'11) — Arizona State University, Mechanical Engineering (Graduated: F'11)
1. **Rose Robin Gilbert** (F'11 – F'11) — Arizona State University, Mechanical Engineering (Graduated: F'11)

Undergraduate Students

70. **John (Jack) Cahill** (F'24 – Pres.) — University of Delaware, Mechanical Engineering (Research Mentor)
69. **Ariane Simbulan** (S'26 – Pres.) — University of Delaware, Mechanical Engineering (Research Mentor)
68. **Christopher Segura** (S'26 – Pres.) — University of Delaware, Mechanical Engineering (Research Mentor)
67. **Jack Palacio** (S'26 – Pres.) — University of Delaware, Mechanical Engineering (Research Mentor)
66. **Coleman Walsh** (S'24 – S'26) — University of Delaware, Mechanical Engineering (Research Mentor & Honors Thesis Chair)
65. **Noah Stiebritz** (S'23 – F'23) — University of Delaware, Mechanical Engineering (Research Mentor)
64. **Ben Caro** (F'22 – S'25) — University of Delaware, Mechanical Engineering (Research Mentor)
63. **Jensen Gaither** (F'22 – S'24) — University of Delaware, Mechanical Engineering (Research Mentor)
62. **Madison Johnson** (F'22 – S'24) — University of Delaware, Mechanical Engineering (Research Mentor)
61. **Jacob Meredith** (F'22 – S'24) — University of Delaware, Mechanical Engineering (Research Mentor)
60. **Anthony Zhou** (Sum'22 – F'22) — University of California, Berkeley / University of Delaware, Mechanical Engineering (Research Mentor)
59. **Michael Rosen** (S'21 – S'22) — University of Delaware, Mechanical Engineering (Research Mentor)
58. **Chris Czerwinski** (F'20 – F'21) — University of Delaware, Mechanical Engineering (Research Mentor)
57. **Jack Swift** (F'20 – S'22) — University of Delaware, Mechanical Engineering (Research Mentor)
56. **Guilherme Moura E Osorio De Valdoleiros** (F'21 – S'22) — University of Delaware, Mechanical Engineering (Research Mentor, NSF REU mentor)
55. **Sydney Przywara** (F'20 – S'22) — University of Delaware, Mechanical Engineering (Research Mentor, NSF REU mentor)
54. **Zachary Thé** (F'20 – S'21) — University of Delaware, Mechanical Engineering (Research Mentor, NSF REU mentor)

53. **Camille Fischer** (F'20 – S'21) — University of Delaware, Mechanical Engineering (Research Mentor)
52. **Hayden Rehn** (F'20 – S'21) — University of Delaware, Mechanical Engineering (Research Mentor)
51. **Makoto Saitoh** (F'20 – S'21) — University of Delaware, Mechanical Engineering (Research Mentor)
50. **Allysa Mae Tuano** (S'20 – F'20) — University of Delaware, Mechanical Engineering (Research Mentor)
49. **Matthew Balbierer** (S'20 – F'20) — University of Delaware, Mechanical Engineering (Research Mentor)
48. **Lynsey Lehmann** (S'18 – S'20) — Arizona State University, Mechanical Engineering (Fulton Undergraduate Research Initiative Mentor, NSF REU mentor; Awards: FURI research award Sum'17, F'17, NSF REU award)
47. **Alex Fulginiti** (S'18 – S'19) — Arizona State University, Mechanical Engineering (NSF REU mentor; Award: NSF REU award)
46. **Brandon Dubbs** (S'18 – S'19) — Arizona State University, Mechanical Engineering (NSF REU mentor; Award: NSF REU award)
45. **Enoch O'Neal** (S'18 – S'19) — Arizona State University, Mechanical Engineering (Undergraduate Research Initiative Mentor)
44. **Michael Drolet** (S'18 – S'19) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award Sum'18)
43. **Justin Clark** (Sum'17 – F'17) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award Sum'17, F'17)
42. **Himanshu Dave** (S'17 – F'17) — Arizona State University, Electrical Engineering (FURI Mentor; Award: FURI research award Sum'17, F'17)
41. **William Kostecki** (S'17 – F'17) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award S'17, Sum'17)
40. **Christopher Weidemann** (Sum'17 – F'17) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award Sum'17, F'17)
39. **Michael Sanchez** (Sum'17 – F'17) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award Sum'17, F'17)
38. **Tyler Mcdaniel** (S'16 – S'17) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award F'16, S'17)
37. **Sebastian Klype** (F'16 – S'17) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award F'16, S'17)
36. **Shreya Udupa** (S'16 – S'17) — Arizona State University, Mechanical Engineering (FURI Mentor and Honors Thesis Chair; Award: FURI research award Sum'16, F'16; Graduated: S'17; Barrett Honors Thesis: "Robotic 3D Mapping for Virtual Reality Implementation")
35. **Linda Fou** (S'15 – S'17) — Arizona State University, Mechanical Engineering (FURI Mentor and Honors Thesis Chair; Award: FURI research award F'15, S'16; Graduated: S'17; Barrett Honors Thesis: "Implementation of variable damping to gait rehabilitation technology")

34. **Andrew Cook** (S'15 – S'17) — Arizona State University, Mechanical Engineering (Committee Member; Graduated: S'17)
33. **Tanguy Toulouse** (S'15 – S'17) — Arizona State University, Mechanical Engineering (Committee Member; Graduated: S'17)
32. **Ryian Hunter** (S'16 – F'16) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award S'16, Sum'16)
31. **Adrian Ion** (S'16 – F'16) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award S'16, Sum'16)
30. **Gregory Hutchins** (S'15 – S'16) — Arizona State University, Mechanical Engineering (Committee Member; Graduated: S'16)
29. **Jasmine Delgado** (S'15 – F'15) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award Sum'15, F'15)
28. **Mateo Oramas** (S'15 – F'15) — Arizona State University, Mechanical Engineering (Research Mentor)
27. **Ioannis Kaneris** (S'14 – F'15) — Arizona State University, Computer Engineering (FURI Mentor; Award: FURI research award F'14)
26. **Sean Howard** (S'14 – F'15) — Arizona State University, Mechanical Engineering (Research Mentor; Award: FURI research award S'14, S'15; Graduated: F'15)
25. **Michael Heeb** (F'13 – F'15) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award Sum'14, F'14; Graduated: F'15)
24. **Elena Whitton** (F'13 – S'15) — Arizona State University, Mechanical Engineering (FURI Mentor and Honors Thesis Chair; Award: FURI research award Sum'14, F'14; Graduated: S'15; Barrett Honors Thesis: “Human Perception of Swarm Behavior”)
23. **Danielle Stevens** (F'13 – S'15) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award F'14, S'15; Graduated: S'15)
22. **Ryan Frost** (S'13 – S'15) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award S'14, Sum'14, S'15)
21. **Andrew Barkan** (F'12 – S'15) — Arizona State University, Mechanical Engineering (FURI Mentor and Honors Thesis Chair; Award: FURI research award S'13, Sum'13, F'13, S'14, F'14, S'15; Graduated: S'15; Barrett Honors Thesis: “Variable Stiffness Treadmill (VST): Design, development and implementation of a novel tool for the investigation of human gait”)
20. **Alison Gibson** (S'12 – S'15) — Arizona State University, Mechanical Engineering (FURI Mentor, NASA Space Grant Mentor; Graduated: S'15; FURI award S'13, F'13, S'14, Sum'14; ASU-NASA Space Grant award F'12, S'13, F'13, S'14, F'14; Awards: Outstanding Graduate Award in Aerospace Engineering (2015), Overall SEMTE Outstanding Graduate Award 2015, 2015 NSF Graduate Student Fellowship; Current: Ph.D. student at MIT)
19. **Jeremy Johnson** (F'12 – F'14) — Arizona State University, Mechanical Engineering (Research Mentor; Award: FURI research award Sum'13, F'13)
18. **Nicolas Jarrett** (F'13 – S'14) — Arizona State University, Mechanical Engineering (Research Mentor)
17. **Lizaveta Charnavusava** (F'13 – S'14) — Arizona State University, Mechanical Engineering (Research Mentor)

16. **Jack Lightholder** (S'13 – S'14) — Arizona State University, Mechanical Engineering (Research Mentor)
15. **Dillon Card** (F'12 – S'14) — Arizona State University, Mechanical Engineering (FURI Mentor and Honors Thesis Chair; Award: FURI research award S'13, Sum'13, F'13, S'14; Graduated: S'14; Barrett Honors Thesis: “Bio-inspired control for robot hand catching and grasping”)
14. **Brad Shoemaker** (F'12 – S'13) — Arizona State University, Mechanical Engineering (Research Mentor; Award: FURI research award S'13)
13. **Jonathon Houda** (F'12 – Sum'13) — Arizona State University, Mechanical Engineering (Research Mentor; Award: FURI research award S'13)
12. **Xavier Vargas** (F'12 – S'14) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award S'13, Sum'13, S'14)
11. **Eric Yanez** (F'12 – S'13) — Arizona State University, Mechanical Engineering (Honors Thesis Chair; Graduated: S'13; Barrett Honors Thesis: “The Development of a Submersible Magneto-Coupled Robot Arm”)
10. **Jennifer Megan Mincieli** (S'12 – S'14) — Arizona State University, Mechanical Engineering (FURI Mentor and Honors Thesis Chair; Award: FURI research award F'12, S'13, Sum'13, F'13, S'14; Graduated: S'14; Barrett Honors Thesis: “Bio-inspired control for robot hand catching and grasping”)
9. **William Lee** (S'12 – F'13) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award S'13)
8. **Stephen Warren** (F'11 – F'13) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award F'11, F'12, F'13)
7. **Taylor Cerchie** (F'11 – Sum'12) — Arizona State University, Mechanical Engineering (FURI Mentor; Award: FURI research award Sum'12)
6. **Gerald O'Neill** (F'11 – S'13) — Arizona State University, Mechanical Engineering (FURI Mentor and Honors Thesis Chair; Graduated: S'13; Barrett Honors Thesis: “A study of 3D human arm impedance towards the development of an EMG-controlled exoskeleton”; Award: FURI research award Sum'12, F'12, S'13, F'13)
5. **Vincent Bevilacqua** (F'11 – S'13) — Arizona State University, Mechanical Engineering (FURI Mentor and Honors Thesis Chair; Graduated: S'13; Barrett Honors Thesis: “An investigation of human error correction in anthropomorphic robotic armatures”; Award: FURI research award Sum'12, F'12, S'13)
4. **Shea Loges** (F'13 – S'14) — Arizona State University, Mechanical Engineering (Honors Thesis Committee Member; Graduated: S'14)
3. **Troy Torrez** (F'11 – S'12) — Arizona State University, Mechanical Engineering (Honors Thesis Committee Member; Graduated: S'12)
2. **Joshua Beck** (F'11 – S'12) — Arizona State University, Mechanical Engineering (Honors Thesis Committee Member; Graduated: S'12)
1. **Riley Shear** (F'11 – S'12) — Arizona State University, Mechanical Engineering (Honors Thesis Committee Member; Graduated: S'12)

Teaching Experience

Total Courses Taught: 30 Average Instructor Evaluation: 4.71 / 5.00
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University of Delaware

Department of Mechanical Engineering — Newark, DE

MEEG 671: Introduction to Robotics (Instructor)

- **S'26:** 26 students registered · Evaluation: **4.93 / 5.0**
- **S'25:** 33 students registered · Evaluation: **4.96 / 5.0**
- **S'24:** 39 students registered (32 in-person + 7 online) · Evaluation: **4.94 / 5.0**
- **S'23:** 35 students registered · Evaluation: **4.80 / 5.0**
- **S'22:** 26 students registered · Evaluation: **4.93 / 5.0**
- **S'21:** 17 students registered · Evaluation: **4.77 / 5.0**
- **S'20:** 21 students registered (18 in-person + 3 online) · Evaluation: **4.83 / 5.0**

MEEG 667: Digital Control (Instructor)

- **F'25:** 12 students registered · Evaluation: **5.00 / 5.0**
- **F'23:** 26 students registered · Evaluation: **5.00 / 5.0**
- **F'21:** 12 students registered · Evaluation: **4.93 / 5.0**

MEEG 311: Control Systems (Instructor)

- **F'24:** 134 students registered · Evaluation: **4.58 / 5.0**
- **F'22:** 78 students registered · Evaluation: **4.76 / 5.0**
- **F'20:** 152 students registered · Evaluation: **4.47 / 5.0**

Arizona State University

Department of Mechanical and Aerospace Engineering — Tempe, AZ

MAE 547: Modeling and Control of Robots (Instructor)

- **S'19:** 23 students registered · Evaluation (Part 2): **4.91 / 5.0**
- **F'17:** 32 students registered · Evaluation (Part 2): **4.74 / 5.0**
- **F'16:** 38 students registered · Evaluation (Part 2): **4.41 / 5.0**
- **F'14:** 31 students registered · Evaluation (Part 2): **4.81 / 5.0**

MAE 508 / MAE 598: Digital Control: Design and Implementation (Instructor)

- **S'18 (MAE 508):** 35 students registered · Evaluation (Part 2): **4.76 / 5.0**
- **S'17 (MAE 508):** 55 students registered · Evaluation (Part 2): **4.47 / 5.0**
- **S'16 (MAE 508):** 55 students registered · Evaluation (Part 2): **4.48 / 5.0**
- **S'15 (MAE 598):** 39 students registered · Evaluation (Part 2): **4.56 / 5.0**
- **S'14 (MAE 598):** 31 students registered · Evaluation (Part 2): **4.44 / 5.0**
- **S'13 (MAE 598):** 32 students registered · Evaluation (Part 2): **4.52 / 5.0**
- **S'12 (MAE 598):** 19 students registered · Evaluation (Part 2): **4.75 / 5.0**

MAE 318: System Dynamics and Control (Instructor)

- **F'15:** 87 students registered · Evaluation (Part 2): **4.73 / 5.0**
- **F'13:** 72 students registered · Evaluation (Part 2): **4.56 / 5.0**
- **F'12:** 72 students registered · Evaluation (Part 2): **4.66 / 5.0**

MAE 394: Honors Research Methods (Instructor)

- **F'17:** 46 students registered · Evaluation (Part 2): **4.55 / 5.0**

MEE 101: The ASU Experience (Instructor)

- **F'15:** 21 students registered · Evaluation (Part 2): **4.64 / 5.0**
- **F'14:** 19 students registered · Evaluation (Part 2): **4.37 / 5.0**

Massachusetts Institute of Technology

Department of Mechanical Engineering — Cambridge, MA

2.004: Dynamics and Control II (Lab Instructor)

- S'11: Lab Instructor

Professional Service & Leadership

Editor-in-Chief / AE Roles: 14 Workshops Organized: 13 Special Sessions Organized: 8 Program Committees & Panels: 8

Editorial Boards & Journal Leadership

- **Dec. 2011 – 2023:** *Editor-in-Chief*, Journal of Advances in Robotics & Automation
- **Oct. 2017 – May 2025:** *Associate Editor*, IEEE Transactions on Neural Systems and Rehabilitation Engineering
- **Dec. 2020 – 2023:** *Associate Editor*, Robotica, Cambridge University Press
- **Sept. 2019 – 2026:** *Associate Editor*, Wearable Technologies, Cambridge University Press
- **Jan. 2017 – 2021:** *Associate Editor*, IEEE Robotics & Automation Magazine
- **Aug. 2011 – Present:** *Editorial Board Member and Associate Editor for ICRA and IROS*, IEEE Robotics & Automation Society (RAS)
- **Dec. 2019 – Dec. 2022:** *Editorial Board Member*, ASME Journal of Mechanisms and Robotics
- **Dec. 2011 – Present:** *Editorial Board Member*, International Journal of Advanced Robotic Systems
- **Jan. 2013 – Present:** *Editorial Board Member*, Bioprocessing Technology, Herbert Publications
- **Dec. 2016:** *Editorial Board Member*, Journal of Rehabilitation and Assistive Technologies Engineering (RATE)
- **June 2020:** *Guest Editor*, Frontiers in Robotics and AI (Special Issue: “Decentralized Cooperative Aerial Multi-Robot Systems”)
- **Aug. 2018:** *Guest Editor*, Applied Bionics and Biomechanics (Special Issue: “Muscle Synergies: Use and Validation in Clinics, Robotics, and Sports”)
- **May 2017:** *Guest Editor*, Applied Bionics and Biomechanics Journal (Special Session: “Muscle Synergies: Use and Validation in Clinics, Robotics, and Sports”)
- **Aug. 2013:** *Guest Editor*, ROBOTICA (Special Issue: “Rehabilitation Robotics and Human-Robot Interaction”)

Conference & Workshop Organization

- **Feb. 2026:** *Organizing Committee Member*, 1st Hellenic Robotics Forum (HRF 2026)
- **Sept. 2024:** *Editor*, 10th IEEE International Conference on Biomedical Robotics and Biomechanics (BioRob 2024)
- **Sept. 2022:** *Editor*, 9th IEEE International Conference on Biomedical Robotics and Biomechanics (BioRob 2022)
- **May 2020:** *Co-Organizer*, Workshop on Human-Swarm Interaction, IEEE ICRA 2020, Paris, France [Acceptance rate: 45%]
- **May 2020:** *Co-Organizer*, Workshop on Advances in Lower Limb Dynamic Prostheses for Agile and Dynamic Walking, IEEE ICRA 2020, Paris, France [Acceptance rate: 45%]
- **Sept. 2020:** *Editor*, 8th IEEE International Conference on Biomedical Robotics and Biomechanics (BioRob 2020)
- **Sept. 2018:** *Associate Editor*, WearRAcon 19, Scottsdale, AZ
- **Jan. 2018:** *General Chair*, SouthWest Robotics Symposium, Arizona State University, Tempe,

AZ [*Secured \$37,000 in industry sponsorships*]

- **Oct. 2017:** *Special Session Co-Organizer*, Invited Session on Biomechatronics and Physical Human Robot Interaction, ASME DSCC 2017, Tysons Corner, VA
- **Sept. 2017:** *Special Session Co-Organizer*, Symposium on Multi-Scale Integration in Upper-Limb Prosthetics, AOPA World Congress 2017, Las Vegas, NV
- **Oct. 2017:** *Editor*, 7th IEEE International Conference on Biomedical Robotics and Biomechatronics (BioRob 2018)
- **May 2017:** *Co-Organizer*, Workshop on Mechanics of Human Locomotion and the Development of Wearable Robotic Systems, IEEE ICRA 2017, Singapore [*Acceptance rate: 50%*]
- **Feb. 2017:** *Co-Organizer & Committee Co-Chair*, 5th ASU Rehabilitation Robotics Workshop, Tempe, AZ [*Secured \$12,000 in industry sponsorships*]
- **Jan. 2017:** *Associate Editor*, IEEE International Conference on Rehabilitation Robotics (ICORR 2017), London, UK
- **Oct. 2016:** *Special Session Chair & Co-Organizer*, Invited Session on Biomechatronics and Physical Human Robot Interaction, ASME DSCC 2016, Minneapolis, MN
- **May 2016:** *Organizer*, Workshop on Human-Robot Interfaces for Enhanced Physical Interactions, IEEE ICRA 2016, Stockholm, Sweden [*Acceptance rate: 50%*]
- **Feb. 2016:** *Co-Organizer & Committee Co-Chair*, 4th ASU Rehabilitation Robotics Workshop, Tempe, AZ [*Secured \$18,000 in industry sponsorships*]
- **March 2016:** *Associate Editor*, IEEE RAS & EMBS BioRob 2016
- **Oct. 2015:** *Special Session Chair & Co-Organizer*, Invited Session on Biomechatronics and Physical Human Robot Interaction, ASME DSCC 2015, Columbus, OH
- **Aug. 2015:** *Organizer*, Workshop on Present and Future of Non-Invasive PNS-Machine Interfaces, IEEE ICORR 2015, Singapore
- **May 2015:** *Organizer*, Workshop on Rehabilitation Robotics and Human-Robot Interaction, IEEE ICRA 2015, Seattle, WA
- **Feb. 2015:** *Co-Organizer & Committee Co-Chair*, 3rd ASU Rehabilitation Robotics Workshop, Tempe, AZ [*Secured \$12,000 in industry sponsorships*]
- **Dec. 2014:** *Co-Organizer*, ASU Advanced Controls Symposium, Tempe, AZ
- **March 2014:** *Special Session Chair & Co-Organizer*, Physical Human-Robot Interactions and Human Assistive Systems, ASME DSCC 2014, San Antonio, TX
- **Feb. 2014:** *Co-Organizer & Committee Co-Chair*, 2nd ASU Rehabilitation Robotics Workshop, Tempe, AZ
- **June 2013:** *Co-Organizer*, Workshop on Present and Future of Non-Invasive PNS-Machine Interfaces, IEEE ICORR 2013, Seattle, WA
- **Feb. 2013:** *Co-Organizer & Committee Co-Chair*, 1st Piper Health Solutions Rehabilitation Robotics Workshop, Tempe, AZ
- **Aug. 2013:** *Editorial Board Member*, International Conference and Exhibition on Robotics & Mechatronics (RoboMech 2013), Raleigh, NC
- **June 2012:** *Organizer & Invited Sessions Chair (US Division)*, IEEE BioRob 2012
- **June 2012:** *Organizer & Special Session Chair*, “Bio-Inspired Design and Control of Robot Hands”, IEEE BioRob 2012
- **June 2012:** *Co-Organizer & Special Session Co-Chair*, “Assistive Robotics II”, IEEE BioRob 2012
- **Aug. 2010:** *Special Session Co-Chair*, “Adaptive Robots and Assistive and Rehabilitation Systems”, 32nd Annual IEEE EMBC 2010

Program Committees, Panels & Technical Leadership

- **Feb. 2021:** *Award Selection Panel Member*, IEEE ICRA Best Automation Paper Award Selection Committee
- **Oct. 2018:** *Scientific Program Committee Member*, IEEE International Conference on Robotic Computing (IRC 2018), Italy
- **Oct. 2017:** *Session Co-Chair*, Session on Human Assistive Systems, IEEE/RSJ IROS 2017, Vancouver, Canada
- **May 2016:** *Session Chair*, Rehabilitation Robotics Session, IEEE ICRA 2016, Stockholm, Sweden
- **Aug. 2015:** *Scientific Program Committee Member*, International Conference on Rehabilitation Robotics (ICORR 2015), Singapore
- **March 2014:** *Program Committee Member*, Workshop on Wearable Technology and Human-Wearable Robot Interaction, IEEE RO-MAN 2014, Scotland, UK
- **July 2013:** *Community Chair*, Peripheral Nervous System Human-Machine Interface (PNS-MI) Community
- **June 2012:** *Program Committee Member*, IEEE International Conference on Biomedical Robotics and Biomechatronics (BioRob 2012)
- **June 2011:** *Member of International Program Committee*, International Conference on Intelligent Robotics and Applications (ICIRA 2011)
- **June 2010:** *Member of International Program Committee*, International Conference on Intelligent Robotics and Applications (ICIRA 2010)

Institutional Service

Faculty Search Committees: 8 School & Dept Committees: 11 College & University Committees: 5 Program Assessor: 2 Semesters
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College & University Level

- **Fall 2025 – Present:** *Member*, Senate Ad-Hoc Committee on Artificial Intelligence, University of Delaware
- **Fall 2025 – Present:** *Member*, University of Delaware Research Council, University of Delaware
- **Fall 2019 – Present:** *Graduate Program Director*, M.S. in Robotics Program, University of Delaware
- **Fall 2019 – Present:** *Departmental Promotion & Tenure Committee Member*, Department of Mechanical Engineering, University of Delaware
- **Fall 2019 – Present:** *Departmental Promotion & Tenure Committee Member*, Department of Biomedical Engineering, University of Delaware
- **Fall 2018 – Spring 2019:** *Graduate Program Chair*, Robotics and Autonomous Systems Graduate Program, Arizona State University
- **Fall 2015 – Spring 2019:** *Research Advisory Board Member*, Ira A. Fulton Schools of Engineering, Arizona State University
- **Spring 2015 – Spring 2019:** *Development Faculty Chair*, Ira A. Fulton Schools of Engineering, Arizona State University
- **Spring 2015 – Spring 2019:** *Affiliated Faculty*, Center on the Future of War, Arizona State University
- **Spring 2014 – Spring 2019:** *Affiliated Faculty*, Global Security Initiative (GSI), Arizona State University
- **Fall 2015:** *Member*, Director Search Committee (School for Engineering of Matter, Transport and Energy), Arizona State University

Departmental & School Level

- **Spring 2026:** *Member*, Lab Coordinator II Search Committee, Department of Mechanical Engineering, University of Delaware
- **Spring 2026:** *Member*, Faculty Search Committee, Department of Mechanical Engineering, University of Delaware
- **Spring 2025:** *Member*, Ad Hoc Workload Committee, Department of Mechanical Engineering, University of Delaware
- **Spring 2024:** *Member*, Faculty Search Committee, Department of Mechanical Engineering, University of Delaware
- **Fall 2022 – Present:** *Chair*, Industry Liaison Committee, Department of Mechanical Engineering, University of Delaware
- **Fall 2022 – Spring 2023:** *Member*, Lab Coordinator II Search Committee, Department of Mechanical Engineering, University of Delaware
- **Fall 2022 – Spring 2023:** *Member*, Graduate Advisor Search Committee, Department of Mechanical Engineering, University of Delaware
- **Fall 2021 – Spring 2023:** *Member*, Graduate Curriculum Committee, Department of Mechanical Engineering, University of Delaware
- **Fall 2019 – Spring 2020:** *Member*, Undergraduate Lab Committee, Department of Mechanical Engineering, University of Delaware
- **Fall 2018 – Spring 2019:** *Chair*, Faculty Search Committee on Robotics and Autonomous Systems, SEMTE, Arizona State University
- **Fall 2018 – Spring 2019:** *Co-Chair*, Faculty Search Committee on Expressive and Interactive Robotics (Joint search with School of Arts, Media and Engineering), SEMTE, Arizona State University
- **Fall 2017 – Spring 2018:** *Co-Chair*, Faculty Search Committee on Expressive and Interactive Robotics (Joint search with School of Arts, Media and Engineering), SEMTE, Arizona State University
- **Spring 2017:** *Program Assessor*, Aerospace and Mechanical Engineering Program, SEMTE, Arizona State University
- **Fall 2016 – Spring 2017:** *Co-Chair*, Faculty Search Committee on Expressive Robotics (Joint search with School of Arts, Media and Engineering), SEMTE, Arizona State University
- **Spring 2016 – Spring 2019:** *Executive Committee Member*, SEMTE, Arizona State University
- **Fall 2015 – Spring 2016:** *Chair*, Faculty Search Committee on Robotics, SEMTE, Arizona State University
- **Spring 2015:** *Program Assessor*, Aerospace and Mechanical Engineering Program, SEMTE, Arizona State University
- **Fall 2014 – Spring 2015:** *Chair*, Faculty Search Committee on Autonomous, Intelligent and Robotic Systems, SEMTE, Arizona State University
- **Fall 2014 – Spring 2015:** *Member*, Faculty Search Committee on Wearable Robot Technologies, SEMTE, Arizona State University
- **Spring 2014 – Spring 2019:** *Member*, Graduate Affairs Committee, Mechanical & Aerospace Engineering, Arizona State University
- **Spring 2014:** *Member*, Faculty Search Committee on Robotics, SEMTE, Arizona State University
- **Fall 2012:** *Member*, Faculty Search Committee on Neurorehabilitation, School of Biological and Health Systems Engineering, Arizona State University

Outreach, Public Engagement & Media Coverage

K-12 & Community Outreach Events: 7 | Major Media Feature Highlights: Washington Post · Popular Science · CBS · C/Net · Daily Mail

STEM Outreach & Community Engagement

- **Summer 2025:** *K-12 STEM Outreach Presenter*, Foundations for Outreach & Recruitment of Great Engineers & Scientists (FORGES), Materials Research Science and Engineering Center (MRSEC), University of Delaware, Newark, DE
- **Spring 2025:** *K-12 STEM Outreach Presenter*, North Star Elementary School, Hockessin, DE
- **Summer 2014:** *Faculty Mentor Participant*, High School Summer Research Program, Ira A. Fulton Schools of Engineering, Arizona State University, Tempe, AZ
- **Fall 2013:** *Featured Researcher*, “STEM Journals TV Show” (Cox TV Channel 7) [[Video Clip](#)]
- **Spring 2013:** *Faculty Participant*, “Feasting with Faculty”, Undergraduate Initiatives Office, Ira A. Fulton Schools of Engineering, Arizona State University
- **Spring 2013:** *HORC Lab Exhibitor*, 2013 Engineering Open House, Ira A. Fulton Schools of Engineering, Arizona State University
- **Fall 2011:** *Guest Speaker*, ASU ASME Student Section, Arizona State University, Tempe, AZ

Selected Media & Press Coverage

- [UDaily](#) (July 2026): “UD to lead \$21.5 million NSF National AI Institute”
- [UDaily](#) (Dec. 2022): “Robot-assisted therapeutic engineering”
- [UDaily](#) (May 2022): “Programming Agility”
- [UDaily](#) (Feb. 2021): “Training robots to collaborate”
- [Phys.org](#) (Oct. 2017): “Drones controlled with brain-computer interface”
- [Newswise](#) (Oct. 2017): “Brain-Controlled Drones Are Here. What’s Coming in the Next Five Years?”
- [ExpoUAV](#) (Oct. 2017): “Decoding the Brain to Control a Swarm of Drones”
- [Science Daily](#) (Oct. 2017): “Brain-controlled drones are here: What’s coming in the next five years?”
- [TechRadar](#) (Oct. 2017): “The brain-controlled drone swarm revolution is coming”
- [Inside O&P](#) (Oct. 2017): “ASU scientists receive NSF grant to develop smart ankle”
- [Digital Journal](#) (Oct. 2017): “Brain controlled drones within the next five years”
- [Washington Post](#) (July 2016): “Meet the man who controls drones with his mind”
- [Popular Science](#) (July 2016): “This scientist is commanding a swarm of drones with his mind”
- [CBS5 Phoenix](#) (July 2016): “ASU researcher controls multiple drones with his mind”
- [AZ Family 3TV](#) (July 2016): “ASU researcher controls multiple drones with his mind”
- [KJZZ Radio](#) (July 2016): “How an ASU Professor Controls Drones Using His Mind”
- [PDDnet](#) (July 2016): “ASU Researcher controls drone ‘swarm’ with his mind”
- [Nerdist](#) (July 2016): “Soon, you’ll control swarms of drones with your mind”
- [Memeburn](#) (July 2016): “Arizona State University finds a way to control drones using brain-waves”
- [C/Net Tomorrow Daily](#) (July 2016): “SWAGBOT: Move over cowboys, drones are herding cattle now”
- [WWMT West Michigan](#) (July 2016): “Researchers create mind controlled drone device”

- **Inverse** (July 2016): “Brain-Powered drone swarms could seriously be a thing”
- **The Mirror** (July 2016): “US Army helps develop drones that can be flown using mind control”
- **The Science Explorer** (July 2016): “With this interface, one person can control a swarm of drones with their mind”
- **TechFactsLive** (July 2016): “Scientist controls multiple drones just by thinking”
- **DNA India** (July 2016): “Researcher builds technology to control drone swarms with his mind”
- **Fox News 31 Denver** (July 2016): “Arizona State researcher controls multiple drones with his mind”
- **Daily Mail** (July 2016): “The drones that fly using MIND CONTROL: Swarms of UAVs guided by brain waves”
- **Digital Trends** (July 2016): “This scientist can control a swarm of drones with his thoughts”
- **Stars and Stripes** (July 2016): “Engineering professor developing mind-controlled drones for Air Force”
- **TechRadar** (July 2016): “How to control a bunch of drones with the power of thought alone”
- **New York Post** (July 2016): “The military will soon control swarms of drones with their minds”
- **Science Daily** (July 2016): “Using wireless interface, operators control multiple drones by thinking”
- **SEMTE News** (April 2015): “Brain control: Taking human-technology interaction to the next level” *[re-published across 4 sites]*
- **SEMTE News** (Jan. 2015): “Fortifying national defense with robot swarms, resilient materials” *[re-published across 6 sites]*
- **State Press** (May 2014): “ASU professor strives to develop military vehicles controlled by thought”

Peer Review & Evaluative Service

Grant Reviewer: 5 Agencies (NSF, AFOSR, NIH, NASA, State of PA) Ad-Hoc Reviewer: 21 Academic Journals & Refereed Conferences
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Grant Proposal Reviewer (Ad Hoc)

- **National Science Foundation (NSF):** National Robotics Initiative (NRI), Partnerships for Innovation (PFI), Robust Intelligence (RI), Foundational Research in Robotics (FRR), Smart and Connected Health (SCH), Graduate Research Fellowship Program (GRFP)
- **Air Force Office of Scientific Research (AFOSR):** Young Investigator Program (YIP) Panel Reviewer (2 Terms)
- **National Institutes of Health (NIH):** Ad-Hoc Grant Reviewer
- **National Aeronautics and Space Administration (NASA):** NASA Postdoctoral Program (NPP) Reviewer
- **Pennsylvania Department of Health:** Research Grant Reviewer

Journal & Conference Paper Reviewer (Ad Hoc)

- **Primary Academic Journals:** *IEEE Transactions on Robotics (T-RO)*, *IEEE Transactions on Biomedical Engineering (T-BME)*, *IEEE/ASME Transactions on Mechatronics (T-MECH)*, *IFAC Journal of Mechatronics*, *Journal of NeuroEngineering and Rehabilitation (JNER)*, *Journal of Mechatronics*, *Applied Bionics and Biomechanics*, *Clinical Neurophysiology*, *Motor Control*, *Sensors*
- **Refereed Conferences:** *IEEE International Conference on Robotics and Automation (ICRA)*,

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Robotics: Science and Systems (RSS), Neural Information Processing Systems (NeurIPS), IEEE International Conference on Biomedical Robotics and Biomechatronics (BioRob), ASME Dynamic Systems and Control Conference (DSCC), IEEE International Conference on Rehabilitation Robotics (ICORR), IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN), IEEE Engineering in Medicine and Biology Conference (EMBC), IEEE European Control Conference (ECC), IEEE Mediterranean Conference on Control and Automation (MED)

Professional Affiliations & Memberships

Honors & Senior Status: ASME Fellow · IEEE Senior Member

- **American Society of Mechanical Engineers (ASME)** – *Fellow*
- **Institute of Electrical and Electronics Engineers (IEEE)** – *Senior Member*
 - IEEE Robotics and Automation Society (RAS)
 - IEEE Engineering in Medicine and Biology Society (EMBS)
- **American Heart Association (AHA)** – *Member*