Curriculum Vitae

CONTACT INFORMATION

Office Address:
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EDUCATION

- Ph.D. in Mechanical Engineering, Stanford University, June 2013.
- M.S. in Mechanical Engineering, Stanford University, April 2009.
- B.S. with honors in Mechanical Engineering, Northwestern University, June 2004.

PhD DISSERTATION

D. M. Aukes, "Design and Analysis of Selectively Compliant Underactuated Robotic Hands," Stanford University, 2013.

- Advisor: Prof. Mark Cutkosky.
- Thesis Committee: Prof. Mark Cutkosky, Prof. Oussama Khatib, Prof. Paul Mitiguy.

PROFESSIONAL EXPERIENCE

Assistant Professor, Ira A. Fulton Schools of Engineering, January 2016-Present

- Director IDEAlab (Integrating Design, Engineering, and Analysis)
- Graduate Faculty Member: SEMTE(chair), Human Systems Engineering(co-chair)
- Affiliate: CHART Center, Biomimicry Center
- Honors Faculty, Barrett Honors College

Wyss Institute Fellow, Harvard University, 2015-2016

Post-Doctoral Researcher, Harvard Microrobotics Laboratory, Harvard University, 2013-2015

Graduate Researcher, Stanford Biomimetics and Dexterous Manipulation Laboratory, Stanford University, 2007-2013

Systems Engineer, DMC, Inc., Chicago, IL, 2004-2007

Student Intern, General Motors, North America Product Development, Warren, MI, Summer 2003

Student Intern, Los Alamos National Laboratory, DARHT Project, Los Alamos, NM, Summer 2002

AWARDS, HONORS, FELLOWSHIPS

- Keen Professorship, Fall 2017
- Wyss Institute Postdoctoral Fellowship in Technology Development, 2014-2015
- Stanford Graduate Fellow, Stanford University, 2007-2010
- Magna Cum Laude, Northwestern University, 2004
- Department Honors, Northwestern University, 2004
- Tau Beta Pi, 2004

PUBLICATIONS, INTELLECTUAL PROPERTY, AND PRESENTATIONS

JOURNAL PUBLICATIONS

1. Aukes, Daniel M, Benjamin Goldberg, Mark R Cutkosky, and Robert J Wood. 2014. "An Analytic Framework for Developing Inherently-Manufacturable Pop-up Laminate Devices." Smart Materials and Structures 23 (9): 094013.
2. Felton, S M, K P Becker, D M Aukes, and R J Wood. 2015. "Self-Folding with Shape Memory Composites at the Millimeter Scale." Journal of Micromechanics and Microengineering 25 (8): 085004.
3. Tolley, Michael T, Samuel M Felton, Shuhei Miyashita, Daniel Aukes, Daniela Rus, and Robert J Wood. 2014. "Self-Folding Origami: Shape Memory Composites Activated by Uniform Heating." Smart Materials and Structures 23 (9): 094006.
4. Aukes, Daniel McConnell, Barrett Heyneman, John Ulmen, Hannah Stuart, Mark R. Cutkosky, Susan Kim, Pablo Garcia, and Aaron Edsinger. 2014. "Design and Testing of a Selectively Compliant Underactuated Hand." The International Journal of Robotics Research 33 (5): 721–35.

JOURNAL PUBLICATIONS (SUBMITTED, NOT YET ACCEPTED)

1. Sharifzadeh, Mohammad, and Daniel M. Aukes. 2019. "Curvature-Induced Buckling for Flapping-Wing Vehicles." (Submitted).
2. Sharifzadeh, Mohammad, Yuhao Jiang, Amir Salimi Lafmejani, Kevin Nichols, Daniel M. Aukes, Yuhao Jiang, Amir Salimi Lafmejani, Kevin Nichols, and Daniel M. Aukes. 2019. "Maneuverable Swimming in Extreme Environments with a Fish-Inspired Robot." (In Preparation).
3. Bagheri, Hosain, Sheldon Cummings, Cayla Roy, Rachel Casleton, Ashley Wan, Nicole Erjavic, Anna Hu, et al. 2019. "Control and Function of Octopus Suckers." (Submitted), 1–16.

JOURNAL PUBLICATIONS (IN PREPARATION)

1. Sharifzadeh, Mohammad, Yuhao Jiang, and Daniel Aukes. 2018. "Spherical Parallel Manipulators Fabricated via Laminate Processes." (In Preparation), September.
2. Khodambashi, Roozbeh, Matthew Peet, Spring Berman, Rebecca Fisher, Hamid Marvi, Ximin He, and Daniel M. Aukes. 2019. "Design of Soft, Thermo-Responsive Hydrogel Actuators with Integrated Heaters." (In Prep).
3. Khodambashi, Roozbeh, Azadeh Doroudchi, Mohammad Sharifzadeh, Dongting Li, Rebecca E Fisher, Hamid Marvi, Matthew M Peet, Ximin He, Spring Berman, and Daniel Aukes. 2019. "Control of Soft Polymeric Actuators: A Paradigm Shift in Designing Hydrogel-Based Soft Machines." (Submitted), 1–35.

4. Shuch, Benjamin D, Eric Rogers, Taha Shafa, and Daniel M Aukes. 2019. "A TWO DOF LAMINATE LEG WALKING ROBOT PLATFORMS FOR USE IN RESEARCH AND THE CLASSROOM." Journal of Mechanisms and Robotics (in Preparation).
5. Xu, Y., M. Sun, R. Khodambashi, A. Wu, S. Berman, M.M. Peet, R.E. Fisher, H. Marvi, D. Aukes, and X. He. 2019. "Temperature and Strain Dual Responsive Tactile Hydrogel as Soft Robotic Materials." (In Prep).
6. Roy, C, S Cummings, B Cota Valenzuela, B Cherry, P Kang, S Berman, M Peet, et al. 2019. "Analysis of the Neuromuscular Structure of Octopus Arms via Contrast Enhanced MRI." (In Prep).

Refereed Conference Papers

1. Brauer, Cole, and Daniel M Aukes. 2019. "VOXEL-BASED CAD FRAMEWORK FOR PLANNING FUNCTIONALLY GRADED." In ASME 2019 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference.
2. Knaup, Jacob W, and Daniel M Aukes. 2019. "DESIGN, MODELING, AND OPTIMIZATION OF A HOPPING ROBOT PLATFORM." In ASME 2019 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference.
3. Huerta, Mark, Jennifer Bekki, Adam Carberry, Samantha Brunhaver, Gary Lichtenstein, Daniel Aukes, Julianne Holloway, Doug Melton, and Ann McKenna. 2019. "The Process of Conceptualizing and Creating the Engineering Faculty Impact Collaborative to Support Faculty Development and Mentorship." In 2019 ASEE Annual Conference and Exposition.
4. Shuch, Benjamin D, Eric Rogers, Taha Shafa, and Daniel M Aukes. 2019. "DESIGN OF A TWO DOF LAMINATE LEG TRANSMISSION FOR CREATING WALKING ROBOT PLATFORMS." In ASME 2019 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference. Anaheim, CA, USA.
5. Mesa, Olga, Saurabh Mhatre, Malika Singh, and Dan Aukes. 2019. "CREASE: Synchronized Gait Through Folded Geometry." In ECAADI(Accepted), 1–10.
6. Yang, Dangli, Shatadal Mishra, Daniel M Aukes, and Wenlong Zhang. 2019. "Design , Planning , and Control of an Origami-Inspired Foldable Quad-Rotor." In 2019 American Control Conference.
7. Doroudchi, Azadeh, Sachin Shivakumar, Rebecca E. Fisher, Hamid Marvi, Daniel Aukes, Ximin He, Spring Berman, and Matthew M. Peet. 2018. "Decentralized Control of Distributed Actuation in a Segmented Soft Robot Arm." In IEEE Conference on Decision and Control (CDC). Miami Beach, FL.
8. Sharifzadeh, Mohammad, Roozbeh Khodambashi, and Daniel M. Aukes. 2018. "ON LOCOMOTION OF A LAMINATED FISH-INSPIRED ROBOT IN A SMALL-TO-SIZE ENVIRONMENT." In Proceedings of the ASME 2018 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE 2018).
9. Khodambashi, Roozbeh, Mohammad Sharifzadeh, and Daniel M. Aukes. 2018. "An Integrated Design and Simulation Environment for Rapid Prototyping of Laminate Robotic Mechanisms." In Volume 5B: 42nd Mechanisms and Robotics Conference, V05BT07A068. American Society of Mechanical Engineers.
10. H. Bagheri, A. Gendt, S. Subramanian, S. Berman, M. Peet, D. Aukes, X. He, R.E. Fisher, H. Marvi. 2018. "Switchable Fibrillar Adhesives Under Different Degrees of Saturation." In Materials Research Society Spring Meeting. Phoenix, AZ.
11. Y. Xu, M. Sun, R. Y. Zhao, X. Qian, S. Berman, M. Peet, R.E. Fisher, H. Marvi, D. Aukes, X. He. 2018. "Multi-Responsive Tactile Hydrogels as Soft Robotic Materials." In Materials Research Society Spring Meeting. Phoenix, AZ.

12. M. Qin, M. Sun, X. Qian, Y. Xu, S. Berman, M. Peet, R.E. Fisher, H. Marvi, D. Aukes, X. He. 2018. "Ultra-Sensitive, Highly-Selective, Real-Time Chemical Wearable Sensors and Soft Artificial Muscle." In 9th Annual Bay Area Biomedical Device Conference. San Jose, CA.
13. H. Bagheri, A. Gendt, S. Cummings, S. Subramanian, S. Berman, M. Peet, D. Aukes, X. He, R.E. Fisher, H. Marvi. 2018. "Octopus Sucker Adhesion and Suction Performance Under Various Environmental Conditions." In Society for Integrative and Comparative Biology.
14. M. Qin, X. Qian, M. Sun, S. Berman, M. Peet, R.E. Fisher, H. Marvi, D. Aukes, X. He. 2017. "Bioinspired Adaptive Materials for Optical Molecular Sensing and Artificial Phototropism." In Canadian Society for Chemistry Conference and Exhibition. Toronto, Canada.
15. Luck, Kevin Sebastian, Joseph Campbell, Michael Jansen, Daniel McConnell Aukes, and Heni Ben Amor. 2017. "From the Lab to the Desert: Fast Prototyping and Learning of Robot Locomotion." In Proceedings of Robotics: Science and Systems. Cambridge, Massachusetts.
16. Jansen, Andrew, Kevin Sebastian Luck, Joseph Campbell, Heni Ben Amor, and Daniel M Aukes. 2017. "Bio-Inspired Robot Design Considering Load-Bearing and Kinematic Ontogeny of Chelonioidea Sea Turtles." In Conference on Biomimetic and Biohybrid Systems, 216–29. Stanford, CA.
17. Koh, Je-sung, Daniel M Aukes, Brandon Araki, Sarah Pohorecky, Yash Mulgaonkar, Michael T Tolley, Vijay Kumar, Daniela Rus, and Robert J Wood. 2017. "A Modular Folded Laminate Robot Capable of Multi Modal Locomotion." In 2016 International Symposium on Experimental Robotics(ISER), edited by Dana Kulić, Yoshihiko Nakamura, Oussama Khatib, and Gentiane Venture, 1:59–70. Springer Proceedings in Advanced Robotics. Springer International Publishing.
18. Mulgaonkar, Yash, Brandon Araki, Je-sung Koh, Luis Guerrero-Bonilla, Daniel M Aukes, Anurag Makineni, Michael T Tolley, Daniela Rus, Robert J Wood, and Vijay Kumar. 2016. "The Flying Monkey: A Mesoscale Robot That Can Run, Fly, and Grasp." In 2016 IEEE International Conference on Robotics and Automation (ICRA), 2016–June:4672–79. IEEE.
19. Doshi, Neel, Benjamin Goldberg, Ranjana Sahai, Noah Jafferis, Daniel Aukes, and Robert J Wood. 2015. "Model Driven Design for Flexure-Based Microrobots." In 2015 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 4119–26. IEEE.
20. Aukes, Daniel M., and Robert J. Wood. 2015. "PopupCAD: A Tool for Automated Design, Fabrication, and Analysis of Laminate Devices." Edited by Thomas George, Achyut K. Dutta, and M. Saif Islam. SPIE.DSS, no. May 2015 (May): 94671B.
21. Aukes, Daniel M., Onur Ozcan, and Robert J. Wood. 2014. "Monolithic Design and Fabrication of a 2-DOF Bio-Inspired Leg Transmission." In Conference on Biomimetic and Biohybrid Systems, 1–10. Milan: Springer International Publishing.
22. Aukes, Daniel M., and Robert J. Wood. 2014. "PopupCAD: A New Design Tool for Developing Self-Folding Devices." In MRS Spring Meeting. San Francisco.
23. An, Byoungkwon, Shuhei Miyashita, Michael T. Tolley, Daniel M. Aukes, Laura Meeker, Erik D. Demaine, Martin L. Demaine, Robert J. Wood, and Daniela Rus. 2014. "An End-to-End Approach to Making Self-Folded 3D Surface Shapes by Uniform Heating." In 2014 IEEE International Conference on Robotics and Automation (ICRA), 1466–73. Hong Kong: IEEE.
24. Stuart, Hannah S, Shiquan Wang, Bayard Gardineer, David L Christensen, Daniel M Aukes, and Mark Cutkosky. 2014. "A Compliant Underactuated Hand with Suction Flow for Underwater Mobile Manipulation." In 2014 IEEE International Conference on Robotics and Automation (ICRA), 6691–97. Hong Kong: IEEE.

25. Aukes, Daniel M., and Robert J. Wood. 2014. "Algorithms for Rapid Development of Inherently-Manufacturable Laminate Devices." In Volume 1: Development and Characterization of Multifunctional Materials; Modeling, Simulation and Control of Adaptive Systems; Structural Health Monitoring; Keynote Presentation, 1:V001T01A005. Newport, RI, USA: ASME.
26. Aukes, Daniel McConnell, and Mark R Cutkosky. 2013. "Simulation-Based Tools for Evaluating Underactuated Hand Designs." In 2013 IEEE International Conference on Robotics and Automation, 2067–73. IEEE.
27. Aukes, Daniel, Susan Kim, Pablo Garcia, Aaron Edsinger, and Mark R Cutkosky. 2012. "Selectively Compliant Underactuated Hand for Mobile Manipulation." In 2012 IEEE International Conference on Robotics and Automation, 2824–29. IEEE.
28. Aukes, Daniel, Barrett Heyneman, Vincent Duchaine, and Mark R. Cutkosky. 2011. "Varying Spring Preloads to Select Grasp Strategies in an Adaptive Hand." In 2011 IEEE/RSJ International Conference on Intelligent Robots and Systems, 1373–79. IEEE.

PEER-REVIEWED CONFERENCE PAPERS (SUBMITTED, NOT YET ACCEPTED)

1. CASLETON, R, M MORGENTHALER, S SHAIKH, M SORGE, B TUCKER, I ESSENDRUP, S BERMAN, et al. n.d. "Chemoreception in Octopus Bimaculoides." In SICB 2019 (Submitted).
2. Lafmejani, Amir Salimi, Azadeh Doroudchi, Hamed Farivarnejad, Ximin He, Daniel Aukes, Matthew M Peet, Hamid Marvi, Rebecca E Fisher, and Spring Berman. 2020. "Kinematic Modeling and Trajectory Tracking Control of an Octopus-Inspired Continuum Robot." In 2020 IEEE International Conference on Robotics and Automation (Submitted), 1–9.

Invited Book Chapters Submitted / In Preparation

1. Bagheri, Hosain, Spring Berman, Matthew M. Peet, Daniel M. Aukes, Ximin He, Rebecca E. Fisher, and Hamidreza Marvi. 2020. "Octopus Sucker Control and Functionality." In Bioinspired Sensing, Actuation, and Control in Underwater Soft Robotic Systems (in Preparation), edited by Derek Paley and Norm Wereley. Springer.
2. Lo, Chiao-Yueh, Yusen Zhao, Yousif Alsaid, Matthew M. Peet, Rebecca E. Fisher, Hamidreza Marvi, Spring Berman, Daniel M. Aukes, and Ximin He. 2020. "Bioinspired Sensing, Actuation, and Control in Underwater Soft Robotic Systems." In Bioinspired Sensing, Actuation, and Control in Underwater Soft Robotic Systems (in Preparation), edited by Derek Paley and Norm Wereley. Springer.

PATENTS, PATENT APPLICATIONS, PROVISIONAL PATENTS, AND INVENTION DISCLOSURES

PATENTS

1. Senanayake, R, Grit Denker, P Lincoln, Roy D. Kornbluh, S. Lincoln, R. Heydt, Harsha Prahlad, et al. 2017. "Adaptable Input/Output Device." US Patent 9,563,274 B2 2 (12).
2. Garcia, Pablo E., Thomas P. Low, Harsha Prahlad, Daniel Aukes, Susan Kim, and Roy D. Kornbluh. 2016. "Twisted String Actuator Systems." US Patent 9.272,425 B2.
3. Garcia, Pablo E., Thomas P. Low, Harsha Prahlad, Daniel Aukes, Susan Kim, and Roy D. Kornbluh. 2016. "Multilayer Electrolaminate Braking System." US Patent 9,272,427 B2.
4. Garcia, PE, TP Low, H Prahlad, Daniel Aukes, Susan Kim, and D Kornbluh. 2014. "Mobile Robotic Manipulator System." US Patent 8,833,826 B2.

PATENT APPLICATIONS

1. Aukes, Daniel M., Hani Ben Amor, Kevin Luck, Michael Jansen, and Joseph Campbell. n.d. "SYSTEMS AND METHODS FOR RAPID-PROTOTYPED ROBOTIC DEVICES." US Patent Application 62/597,276.
2. Zhang, Wenlong, Dangli Yang, and Daniel Aukes. 2019. "SYSTEMS AND METHODS FOR A FOLDABLE UNMANNED AERIAL VEHICLE HAVING A LAMINATE STRUCTURE." US Patent Application.

PROVISIONAL PATENTS

1. Zhang, Wenlong, Daniel Aukes, and Dangli Yang. 2018. "System and Method for a Foldable Unmanned Aerial Vehicle Having on Laminate Structure." US Provisional Patent.
2. Aukes, Daniel M., Hani Ben Amor, Kevin Luck, Michael Jansen, and Joseph Campbell. 2017. "Systems and Methods for Rapid-Prototyped Robotic Devices." US Provisional Patent 584205: 1–28.
3. Aukes, Daniel M., Mohammad Sharifzadeh, and Kevin Nichols. 2018. "Mechanisms For Steering Robotic Fish." US Provisional Patent.
4. Aukes, Daniel M., Roozbeh Khodambashi, Ximin He, and Yousif Alsaid. 2019. "Shape Morphing Soft Material." US Provisional Patent.

ASU INVENTION DISCLOSURES

1. AZTE# M18-109P: SYSTEMS AND METHODS FOR A FOLDABLE UNMANNED AERIAL VEHICLE HAVING A LAMINATE STRUCTURE
2. AZTE# M18-118P: Systems and Methods for Rapid-Prototyped Robotic Devices
3. AZTE# M18-273P: Mechanisms For Steering Robotic Fish
4. AZTE# M19-170P: Design, Planning, and Control of an Origami-inspired Foldable Quadrotor
5. AZTE# M19-296P: Shape Morphing Soft Material

Invited Presentations – External

1. Toyota Research Institute, Palo Alto CA, Dec 2016
2. Foldable Robotics Workshop, IROS, Oct 2016
3. D. M. Aukes, "Automating the Design Process for Folding Laminate Devices," in Minimality & Design Automation, RSS Workshop, 2016.
4. D. M. Aukes, "Informal robotics: closing the loop between teaching and research," in Robot makers II: The future of digital rapid design and fabrication of robots, RSS Workshop, 2016.
5. University of California San Diego, March 2015
6. Cornell University, March 2015
7. University of Colorado Boulder, ATLAS Institute, March 2015
8. Arizona State University, March 2015
9. Massachussetts Institute of Technology, Mechanical Engineering Seminar Series, February 2015
10. SRI International, Menlo Park, CA, June 2014
11. D. M.Aukes, "DIY robots with popupCAD", Wyss Retreat 2014
12. D. M. Aukes, "PopupCAD: a New Design Tool for Developing Inherently-Manufacturable Laminate Devices," in Robot makers: The future of digital rapid design and fabrication of robots, RSS Workshop, 2014.
13. Aukes, D.M. (2012) Simulation-Based Tools For Evaluating Underactuated Hand Designs.

Guest Lecture at George Washington University.

Invited Presentations – ASU Internal

1. SBHSE Seminar Series

Invited Conference Presentations, including students

1. Aukes, Daniel M., and Robert J. Wood. 2014. "PopupCAD: A New Design Tool for Developing Self-Folding Devices." In MRS Spring Meeting. San Francisco.
2. Aukes, Daniel M., and Robert J. Wood. 2015. "PopupCAD: A Tool for Automated Design, Fabrication, and Analysis of Laminate Devices." Edited by Thomas George, Achyut K. Dutta, and M. Saif Islam. SPIE.DSS, no. May 2015 (May): 94671B.

Peer-reviewed Conference Presentations, including students

1. Yang, Dangli, Shatadal Mishra, Daniel M Aukes, and Wenlong Zhang. 2019. "Design, Planning, and Control of an Origami-Inspired Foldable Quadrotor." In 2019 American Control Conference (ACC), 2551–56.
2. Mesa, Olga, Saurabh Mhatre, Malika Singh, and Dan Aukes. 2019. "CREASE: Synchronized Gait Through Folded Geometry." In ECAADI(Accepted), 1–10.
3. Knaup, Jacob W, and Daniel M Aukes. 2019. "DESIGN, MODELING, AND OPTIMIZATION OF A HOPPING ROBOT PLATFORM." In ASME 2019 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference.
4. Brauer, Cole, and Daniel M Aukes. 2019. "VOXEL-BASED CAD FRAMEWORK FOR PLANNING FUNCTIONALLY GRADED." In ASME 2019 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference.
5. Huerta, Mark, Jennifer Bekki, Adam Carberry, Samantha Brunhaver, Gary Lichtenstein, Daniel Aukes, Julianne Holloway, Doug Melton, and Ann McKenna. 2019. "The Process of Conceptualizing and Creating the Engineering Faculty Impact Collaborative to Support Faculty Development and Mentorship." In 2019 ASEE Annual Conference and Exposition.
6. Shuch, Benjamin D, Eric Rogers, Taha Shafa, and Daniel M Aukes. 2019. "DESIGN OF A TWO DOF LAMINATE LEG TRANSMISSION FOR CREATING WALKING ROBOT PLATFORMS." In ASME 2019 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference. Anaheim, CA, USA.
7. Bagheri, H, S Cummings, C Roy, R Casleton, A Wan, N Erjavic, A Hu, et al. 2019. "Octopus Suckers: Functionality and Control." In Society for Integrative and Comparative Biology Meeting. Tampa, FL.
8. Sharifzadeh, Mohammad, Roozbeh Khodambashi, and Daniel M. Aukes. 2018. "ON LOCOMOTION OF A LAMINATED FISH-INSPIRED ROBOT IN A SMALL-TO-SIZE ENVIRONMENT." In Proceedings of the ASME 2018 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE 2018).
9. Sharifzadeh, Mohammad, Roozbeh Khodambashi, and Daniel M Aukes. 2018. "An Integrated Design and Simulation Environment for Rapid Prototyping of Laminate Robotic Mechanisms ." Proceedings of the ASME 2018 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC/CIE 2018).
10. H. Bagheri, A. Gendt, S. Subramanian, S. Berman, M. Peet, D. Aukes, X. He, R.E. Fisher, H. Marvi. 2018. "Switchable Fibrillar Adhesives Under Different Degrees of Saturation." In Materials Research Society Spring Meeting. Phoenix, AZ.
11. Y. Xu, M. Sun, R. Y. Zhao, X. Qian, S. Berman, M. Peet, R.E. Fisher, H. Marvi, D. Aukes, X.

He. 2018. “Multi-Responsive Tactile Hydrogels as Soft Robotic Materials.” In Materials Research Society Spring Meeting. Phoenix, AZ.

12. M. Qin, M. Sun, X. Qian, Y. Xu, S. Berman, M. Peet, R.E. Fisher, H. Marvi, D. Aukes, X. He. 2018. “Ultra-Sensitive, Highly-Selective, Real-Time Chemical Wearable Sensors and Soft Artificial Muscle.” In 9th Annual Bay Area Biomedical Device Conference. San Jose, CA.
13. H. Bagheri, A. Gendt, S. Cummings, S. Subramanian, S. Berman, M. Peet, D. Aukes, X. He, R.E. Fisher, H. Marvi. 2018. “Octopus Sucker Adhesion and Suction Performance Under Various Environmental Conditions.” In Society for Integrative and Comparative Biology.
14. M. Qin, X. Qian, M. Sun, S. Berman, M. Peet, R.E. Fisher, H. Marvi, D. Aukes, X. He. 2017. “Bioinspired Adaptive Materials for Optical Molecular Sensing and Artificial Phototropism.” In Canadian Society for Chemistry Conference and Exhibition. Toronto, Canada.
15. Luck, Kevin Sebastian, Joseph Campbell, Michael Jansen, Daniel McConnell Aukes, and Heni Ben Amor. 2017. “From the Lab to the Desert: Fast Prototyping and Learning of Robot Locomotion.” In Proceedings of Robotics: Science and Systems. Cambridge, Massachusetts.
16. Jansen, Andrew, Kevin Sebastian Luck, Joseph Campbell, Heni Ben Amor, and Daniel M Aukes. 2017. “Bio-Inspired Robot Design Considering Load-Bearing and Kinematic Ontogeny of Chelonioidea Sea Turtles.” In Conference on Biomimetic and Biohybrid Systems, 216–29. Stanford, CA.
17. Koh, Je-sung, Daniel M Aukes, Brandon Araki, Sarah Pohorecky, Yash Mulgaonkar, Michael T Tolley, Vijay Kumar, Daniela Rus, and Robert J Wood. 2017. “A Modular Folded Laminate Robot Capable of Multi Modal Locomotion.” In 2016 International Symposium on Experimental Robotics(ISER), edited by Dana Kulić, Yoshihiko Nakamura, Oussama Khatib, and Gentiane Venture, 1:59–70. Springer Proceedings in Advanced Robotics. Springer International Publishing.
18. Mulgaonkar, Yash, Brandon Araki, Je-sung Koh, Luis Guerrero-Bonilla, Daniel M Aukes, Anurag Makineni, Michael T Tolley, Daniela Rus, Robert J Wood, and Vijay Kumar. 2016. “The Flying Monkey: A Mesoscale Robot That Can Run, Fly, and Grasp.” In 2016 IEEE International Conference on Robotics and Automation (ICRA), 2016–June:4672–79. IEEE.
19. Doshi, Neel, Benjamin Goldberg, Ranjana Sahai, Noah Jafferis, Daniel Aukes, and Robert J Wood. 2015. “Model Driven Design for Flexure-Based Microrobots.” In 2015 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 4119–26. IEEE.
20. Aukes, Daniel M., Onur Ozcan, and Robert J. Wood. 2014. “Monolithic Design and Fabrication of a 2-DOF Bio-Inspired Leg Transmission.” In Conference on Biomimetic and Biohybrid Systems, 1–10. Milan: Springer International Publishing.
21. An, Byoungkwon, Shuhei Miyashita, Michael T. Tolley, Daniel M. Aukes, Laura Meeker, Erik D. Demaine, Martin L. Demaine, Robert J. Wood, and Daniela Rus. 2014. “An End-to-End Approach to Making Self-Folded 3D Surface Shapes by Uniform Heating.” In 2014 IEEE International Conference on Robotics and Automation (ICRA), 1466–73. Hong Kong: IEEE.
22. Stuart, Hannah S, Shiquan Wang, Bayard Gardineer, David L Christensen, Daniel M Aukes, and Mark Cutkosky. 2014. “A Compliant Underactuated Hand with Suction Flow for Underwater Mobile Manipulation.” In 2014 IEEE International Conference on Robotics and Automation (ICRA), 6691–97. Hong Kong: IEEE.
23. Aukes, Daniel M., and Robert J. Wood. 2014. “Algorithms for Rapid Development of Inherently-Manufacturable Laminate Devices.” In Volume 1: Development and Characterization of Multifunctional Materials; Modeling, Simulation and Control of Adaptive

Systems; Structural Health Monitoring; Keynote Presentation, 1:V001T01A005. Newport, RI, USA: ASME.
24. Aukes, Daniel McConnell, and Mark R Cutkosky. 2013. "Simulation-Based Tools for Evaluating Underactuated Hand Designs." In 2013 IEEE International Conference on Robotics and Automation, 2067–73. IEEE.
25. Aukes, Daniel, Susan Kim, Pablo Garcia, Aaron Edsinger, and Mark R Cutkosky. 2012. "Selectively Compliant Underactuated Hand for Mobile Manipulation." In 2012 IEEE International Conference on Robotics and Automation, 2824–29. IEEE.
26. Aukes, Daniel, Barrett Heyneman, Vincent Duchaine, and Mark R. Cutkosky. 2011. "Varying Spring Preloads to Select Grasp Strategies in an Adaptive Hand." In 2011 IEEE/RSJ International Conference on Intelligent Robots and Systems, 1373–79. IEEE.

Non-refereed Conference Presentations

1. Sharifzadeh, Mohammad, Amir Salimi Lafmejani, Kevin Nichols, and Daniel Aukes. 2019. "Training of Robotic Pectoral Fin Maneuvers Based on the CMAES Algorithm." In 2019 Southwest Robotics Symposium (Poster).
2. Gilbert, Alia, and Daniel M. Aukes. 2019. "Lateral Control of Biologically-Inspired Underwater Robot." In 2019 Southwest Robotics Symposium (Poster).
3. Shuch, Benjamin, Taha Shafa, and Daniel Aukes. 2019. "Laminate Quadrupedal Robot." In 2019 Southwest Robotics Symposium (Poster).
4. Gilbert, Alia, and Daniel M. Aukes. 2019. "Vertical Control of Biologically-Inspired Underwater Robot." In 2019 Spring FURI Symposium.
5. Brauer, Cole, and Daniel M. Aukes. 2019. "Automated Process Planning for Multi-Material Manufacturing." In 2019 Spring FURI Symposium.
6. Lighthouse, Guston, and Daniel M. Aukes. 2019. "Extending the Jumping Range of a Small Robot via Collapsible Gliding Wings." In 2019 Spring FURI Symposium.
7. Shafa, Taha, and Daniel M. Aukes. 2019. "Control of Laminate Bipedal Locomotion." In 2019 Spring FURI Symposium.
8. Bagheri, H, Hu A, S Cummings, C Roy, R Casleton, A Wan, N Erjavic, et al. 2019. "Functionality of Octopus Suckers." In 2019 Southwest Robotics Symposium (Poster).
9. Yang, D., S. Mishra, Daniel M. Aukes, and W. Zhang. 2018. "Linkage Mechanism Based Perching for Foldable Quadcopters." In 2018 Southwest Robotics Symposium (Poster).
10. Sharifzadeh, Mohammad, Roozbeh Khodambashi, and Daniel M. Aukes. 2018. "Experimental Identification & Control of a Fish-Inspired Laminated Robot Movement in Water." In 2018 Southwest Robotics Symposium (Poster).
11. Carlson, Andrew, and Daniel M. Aukes. 2018. "Laminate Underactuated Robotic Hand." In 2018 Spring FURI Symposium.
12. Bagheri, H., A. Gendt, S. Cummings, S. Subramanian, S. Berman, M. Peet, D. Aukes, X. He, R.E. Fisher, and H. Marvi. 2018. "Octopus Sucker Adhesion and Suction Performance From Attached to Amputated Arm." In 2018 Southwest Robotics Symposium (Poster). Tempe, AZ.
13. Sharifzadeh, Mohammad, Roozbeh Knodambashi, and Daniel M. Aukes. 2018. "An Integrated Design and Simulation Environment for Rapid Prototyping of Laminate Robotic Mechanisms." In 2018 Southwest Robotics Symposium (Poster).
14. Knodambashi, Roozbeh, Mohammad Sharifzadeh, and Daniel M. Aukes. 2018. "Simulation of Origami Inspired Robot Linkages." In 2018 Southwest Robotics Symposium (Poster).
15. Carlson, Andrew, and Daniel M. Aukes. 2018. "Laminate Underactuated Robotic Hand."

In 2018 Southwest Robotics Symposium (Poster).
16. Knaup, Jacob W, and Daniel M. Aukes. 2018. "Design of a Hopping Platform Using Laminate Construction." In 2018 Southwest Robotics Symposium (Poster).
17. Knaup, Jacob W, and Daniel M. Aukes. 2018. "Developing an Educational Robotic Platform." In 2018 Spring FURI Symposium.
18. Gilbert, Alia, and Daniel M. Aukes. 2018. "Lateral Control of Biologically-Inspired Underwater Robot." In 2018 Fall FURI Symposium.
19. Brauer, Cole, and Daniel M. Aukes. 2018. "Automated Process Planning for Multi Material Manufacturing." In 2018 Fall FURI Symposium.
20. Lighthouse, Guston, and Daniel M. Aukes. 2018. "Extending Jumping Range with Deployable Gliding Wings." In 2018 Fall FURI Symposium.
21. Benson, Sheena, and Daniel M. Aukes. 2018. "Design of a Cutting Tool for Clearing Underwater Vegetation." In 2018 Fall FURI Symposium.
22. Knaup, Jacob, and Daniel M. Aukes. 2017. "Design of a Hopping Platform Using Laminate Construction." In 2017 Fall FURI Symposium.
23. Knaup, Jacob, and Daniel M. Aukes. 2017. "Low-Cost, Modular Force Control Solution." In 2017 Spring FURI Symposium.
24. Carlson, Andrew, and Daniel M. Aukes. 2017. "Laminate Underactuated Robotic Hand." In 2017 Fall FURI Symposium.
25. Aukes, Daniel M., and Robert J. Wood. 2013. "PopupCAD: A New Design Tool for Rapid Development of Printable Robots." In 2013 Review for Printable Robots Expeditions Team.

PROFESSIONAL ACTIVITIES AND SERVICE

International & National Conference Committees

- Sponsor Chair for 2019 Southwest Robotics Symposium, Tempe, AZ, Jan 2019. Responsible for $46,000 in sponsorship coordination, $18,000 personally.
- Robosoft 2019 Program Committee
- Organizer for 2018 Southwest Robotics Symposium, Tempe, AZ, Jan 2018. Responsible for $13,000 in sponsorhips.
- Technical Program Chair for the Symposium On Computational Fabrication, June 2018
- RSS 2018 Program Committee
- RSS 2017 Program Committee
- RSS 2016 Program Committee

International & National Conference Sessions Chaired

- Session Chair, MR-8-3: Motion Control, ASME IDETC/CIE 2018
- Session Chair, MR-4-3: Structural Design of Origami, ASME IDETC/CIE 2018

Peer Reviewer for Journals

1. Science
2. International Journal of Robotics Research (IJRR)
3. IEEE Robotics and Automation Letters (IEEE-RAL)

4. Journal of Soft Robotics (SoRo)
5. IEEE Tranactions on Robotics (IEEE-TRO)
6. Autonomous Robots(AURO)
7. Sensors and Actuators A (SNA)
8. Journal of Intelligent and Robotic Systems(JINT)
9. ASME Journal of Mechanisms and Robotics (JMR)
10. IEEE Robotics and Automation Magazine (IEEE-RAM)

Peer Reviewer for Conferences:

1. Robotics: Science and Systems (RSS)
2. International Conference on Robotics and Automation (ICRA)
3. International Conference on Intelligent Robots (IROS)
4. Symposium on Computational Fabrication (SCF)
5. ASME International Design Engineering Technical Conferences & Computers and Information in Engineering Conference(IDETC/CIE)
6. RoboSoft

Other External Service

- Peer Reviewer on NSF Funding Panels (in-person and ad-hoc)
- Serving as Junior Chair for the RSS Technical Committee on Mechanisms and Design. Responsible for website development and outreach. 2016-Present.
- Workshop Organizer, "Folding in Robotics" at IROS 2017, Oct 2017
- Workshop Organizer, "Folding in Robotics" at IROS 2016, Oct 2016

Engineering School-level Committees

- ASU New Faculty Advisory Council, Fall 2016-Present
  - Served as Chair, Spring 2016-Spring 2018 (3 Semesters)
  - Planned new faculty mixers once per semester
  - Helped plan 3 workshops on teaching, research & lab management.
  - Planned and run monthly meetings on Tempe Campus.
  - Met with Vice Dean of Faculty Administration (Marco Saraniti) semesterly.

Program-level leadership

- Serve as Barrett Faculty Honors Advisor, Fall 2019-present
- Undergraduate Curriculum Committee, Fall 2017-present
- RED Poly Faculty Fellow, "Project Spine" Team, 2016-2018
- Polytechnic School robotics faculty search committee, 2016-2017

Other Internal Service

- Serve as Technical Faculty Mentor for the ASU Global Resolve Club Fall 2019-Present
- Develop and maintain the robotics website for ASU robotics faculty, April 2016-present
- Developed and maintain `http://idealab.asu.edu`, a website dedicated to topics related to folding mechanism design. 2015-present

Outreach / Other

- Developed and maintain http://www.popupcad.org, a website dedicated to topics related to folding mechanism design. 2015-present
- Host lab tours on request (~4 per year)
- ASU Global Resolve Chaperone, Peru, March 2017
- Organized Activities for National Robotics Week at Polytechnic 2018 (Fulton Fieldtrip)
- Organized Activities for National Robotics Week at Polytechnic 2017 (Fulton Fieldtrip)
- Organized Activities for National Robotics Week at Polytechnic 2016 (DiscoverE Day)
- Hosted events at Night of the Open Door, Feb 2017
- Hosted events at Night of the Open Door, Feb 2016
- Participated in the Polytechnic School's Innovation Showcase
  - Spring 2016: EGR202
  - Fall 2016: EGR598
  - Spring 2017: EGR202, EGR598
  - Spring 2018: EGR598
  - Fall 2018: EGR304
  - Spring 2019: EGR598, EGR314
  - Fall 2019: EGR304

PERSONNEL: STUDENT SUPERVISION / MENTORING, TEACHING, DISSERTATION COMMITTEES, RESEARCHERS, AND OUTREACH

Student Mentoring

PhD Students Current as Chair or Co-Chair

- Roozbeh Khodambashi, Systems Engineering, Chair, Spring 2017-Present
  - Passed the Qualifying Exam in Fall 2017.
  - Passed the Comprehensive Exam in Spring 2019
- Mohammad Sharifzadeh, Systems Engineering, Chair, Spring 2017-Present
  - Passed the Qualifying Exam in Fall 2017.
  - Comprehensive Exam Scheduled for Fall 2019.
- Dongting Li, Mechanical Engineering, Chair, Fall 2018-Present
- Yuhao Jiang, Mechanical Engineering, Chair, Spring 2019-Present

PhD Students Current as Committee Member

- Kevin Luck, Computer Science, Committee Member
  - Passed Comprehensive Exam Spring 2018
  - Defense Scheduled: Fall 2019
  - Expected Graduation Date: December 2019

M.S. Thesis Students Graduated as Chair

- Taha Shafa, Engineering (Fall 2019 - Spring 2020) (planned)
- Clint Ewell (Fall 2019 - Spring 2020) (planned)
- Vipul Gadekar (Fall 2019 - Spring 2020) (planned)
- Sudhanshu Katarey (Fall 2019 - Spring 2020) (planned)

- Cole Brauer (Fall 2019 - Spring 2020) (planned)
- Wade Adams (Spring 2019)
- Benjamin Shuch (Fall 2018 - Spring 2019)

M.S. Students Graduated as Co-Chair

- Rebecca Bell, Systems Engineering, Spring 2019
- Zz Haggerty, Mechanical Engineering, Spring 2018
- Ameya Wadekar, Systems Engineering, Summer 2017
- Aman Yadav, Systems Engineering, Summer 2016

Other Graduate Student Researchers

- Taha Shafa - KEEN Student Grant - (Spring 2019)

Undergraduate Student Researchers

- Dante Roush - Barrett Honors Thesis (Spring 2020)(planned)
- Hebellyn Quezada - Barrett Honors Thesis (Spring 2020)(planned)
- Frank Ononye - Barrett Honors Thesis (Spring 2020)(planned)
- Mannat Rana - 2 Semesters FURI - (Fall 2019 - Spring 2020)(planned)
- Guston Lighthouse - 2 Semesters FURI, Barrett Honors Thesis- (Fall 2018 - Spring 2019)
- Cole Brauer, - 2 Semesters FURI, Barrett Honors Thesis - (Fall 2018 - Spring 2019)
- Sheena Benson - 1 Semester FURI - (Fall 2018)
- Alia Gilbert - 2 Semesters FURI - (Fall 2018 - Spring 2019)
- Drew Carlson - 2 Semesters FURI, Independent Study - (Fall 2017 -Spring 2019)
- Jacob Knaup - 2 Semesters FURI, 1 Semester KEEN, Barrett Honors Thesis (Spring 2017 - Spring 2019)
- Benjamin Shuch - Independent Study, Barrett Honors Thesis - (Spring 2016 - Spring 2018)

Other Mentoring

- Project Mentor for Engineering Capstone Team on Foldable Robots, 2017-2018 School Year.
- Summer 2015: Mentored Aaron Gokaslan (Harvard Summer Student). Topic: Dynamic simulation of laminate devices with Python and Gazebo.
- Fall 2014: Mentored Brandon Araki (Undergraduate Researcher). Topic: Design of a lightweight single-degree-of-freedom walking platform for quad copters. Resulted in 2 Conference papers.
- Fall 2014: Mentored Undergraduate Thesis: Design of a low-cost, origami-inspired guitar, Harvard University
- Summer 2014: Mentored summer student on the topic of self-assembling furniture, Harvard University

Student Fellowships and Awards

KEEN Mini Grant

1. Jacob Knaup (1 Semester KEEN)
2. Taha Shafa (1 Semester KEEN)

FURI

1. Mannat Rana (2 Semesters FURI)
2. Jacob Knaup (2 Semesters FURI)

3. Drew Carlson (2 Semesters FURI)
4. Guston Lighthouse (2 Semesters FURI)
5. Cole Brauer (2 Semesters FURI)
6. Sheena Benson (2 Semesters FURI)
7. Alia Gilbert (2 Semesters FURI)
8. Alex Thiel (FURI)

Other

1. Alejandra Mayoral (Mastercard Scholar)
2. Cole Brauer (FURI Travel Grant, Summer 2019)

TEACHING EXPERIENCE

Classroom Experience by Semester

Semester	Course Title
Fall 2011	Dynamics of Mechanical, Aerospace, and Biomechanical Systems[1]
Fall 2014	Informal Robotics[2]
Fall 2015	Informal Robotics[3]
Spring 2016	EGR 202: Use-Inspired Design Project II
Fall 2016	EGR 598: Foldable Robotics
Spring 2017	EGR 202: Use-Inspired Design Project II
Spring 2017	EGR 598: Foldable Robotics
Spring 2018	EGR 494/598: Foldable Robotics
Fall 2018	EGR 304: Embedded Systems I
Spring 2019	EGR 494/598: Foldable Robotics
Spring 2019	EGR 314: Embedded Systems II
Fall 2019	EGR 304: Embedded Systems I

Course Descriptions

EGR 494/598: Foldable Robotics. ASU Polytechnic Campus. This course introduces students to the fundamentals of designing origami-inspired robots in a project-based format. I developed this course in Spring 2016. Responsibilities in the course include development and delivery of course material, project mentoring, etc. (This course is numbered differently for undergraduate and graduate students)

EGR 304: Embedded Systems I. ASU Polytechnic Campus. This is a project-based course that teaches the fundamentals of designing and fabricating PCB-based embedded systems. The course is delivered in a project-based format where teams. Responsibilities in the course include development, preparation, and delivery of course material, project mentoring, etc.

EGR 314: Embedded Systems II. ASU Polytechnic Campus. This project-based class focuses on extending concepts taught in EGR 304 through more advanced project specifications and topics. Responsibilities in the course include development, preparation, and delivery of course material, project mentoring, etc.

[1] Taught prior to ASU.
[2] Taught prior to ASU.
[3] Taught prior to ASU.

EGR202: Use-Inspired Design Project II. ASU Polytechnic Campus. This course introduces students to a user-centered design process as it relates to developing products with engineering skillsets. Responsibilities in the course include preparation and delivery of course material, project mentoring, etc. I overhauled the course material in Spring 2016 and 2017 to include new modules related to modeling and experimentation in a mini-project format focused on electric motors.

Informal Robotics, Harvard Graduate School of Design. This course taught the design of informal robotic systems including soft and origami-inspired robotics, from a design, aesthetic, and research perspective. Responsibilities included development, co-teaching, and mentoring of teams.

Dynamics of Mechanical, Aerospace, and Biomechanical Systems, Stanford University. Teaching Assistant with Prof. Paul Mitiguy. Responsibilities included weekly study sections, research presentation in class, and office hours.

Other Teaching Experience

- Course Coordinator for *EGR202: Use-Inspired Design Project II*, Spring 2018
- Further course development of *EGR598: Foldable Robotics* around KEEN "Entrepreneurial Mindset" principles, Spring 2018
- Attended 2018 KEEN National Conference, Dallas, TX
- Developed class titled *EGR598: Foldable Robotics* at ASU Polytechnic School, Fall 2016
- Developed class titled *Informal Robotics* with lecturer Chuck Hoberman and PhD student Jonathan Grinham. Taught classes and mentored project teams. 2014
- Attended one-day teaching conference organized by the Harvard Initiative for Learning and Teaching , September, 2014.

Teaching Evaluations

Term	Course Title	Class Nbr	Session	Part 1	Part 2	Overall	Response	Available	Response %
2016 Spring	EGR 202 Aukes	18790	A	3.33	3.68	2.58	19	43	44.19%
2016 Fall	EGR 598 Aukes	91038	A	3.91	3.85	3.36	14	19	73.68%
2017 Spring	EGR 202 Aukes	13417	A	3.23	3.94	2.57	21	43	48.84%
2018 Spring	EGR 598 Aukes	30113	C	4.15	4.29	4.08	13	16	81.25%
2018 Spring	EGR 494 Aukes	31656	C	4.40	4.56	5.00	1	1	100.00%
2018 Fall	ASU 101-TPS Aukes	84459	C	0	4.67	4	1	18	5.56%
2018 Fall	EGR 304 Aukes	78772	C	3.79	3.87	3.5	6	39	15.38%
2019 Spring	EGR 314 Aukes	24628	C	4.11	4.42	4	17	38	44.74
2019 Spring	EGR 494 Aukes	32366	C	4.15	4.33	4.8	5	6	83.33
2019 Spring	EGR 598 Aukes	25662	C	4.46	4.61	4.53	17	18	94.44

RESEARCH SUPPORT

Proposal Names

1. Rapid Design, Prototyping, and Construction of Small Running Quadrupedal Robots
2. NRI: Collaborative Research: Transforming Undergraduate Education in Legged Robot Design and Control
3. COMPUGIRLS V: Manufacturing Culturally Responsive Robots
4. NRI:INT: Robot Escape Room: Specification, Generation, Coordination, and Execution of Human-Robot Plans and Actions
5. NRI:FND: Transforming Robotics Education Through Interactive, Laminate Co-robots
6. Human-robot interaction and interfaces in manufacturing environments
7. Automation to Grow Investment and Lasting Employment-AGILE
8. Manufacturing Apps for the Classroom
9. Octopus-Inspired Autonomous Arms for Soft Robotics with Adaptive Motions
10. NEXTFLEX PROJECT CALL 3.0
11. Improving Research and Entrepreneurial Capacity in Foldable Robotics
12. CREC:SRP Laminate Robot Platform to Facilitate Autonomous Canal Maintenance
13. A Novel Platform for Characterizing Octopus Arms and Soft Robotic Actuators
14. Developing a Culturally-Responsive Robotics Curriculum for Addressing STEM Diversity
15. Phase II: Navigation and Control of an Autonomous Fish-Inspired Robot for Canal Cleaning and Maintenance
16. Mentoring Engineering Faculty to Professional Impact
17. NRI: FND: Soft, Wearable Exo-Shells
18. Integrated design, learning, and control techniques towards highly-maneuverable and bio-plausible UAVs
19. Curvature-Induced Programmable Buckling Towards Morphing Flapping-Wing Vehicles
20. EAGER SitS: Active Self-Boring Robots that Enable Next Generation Dynamic Underground Wireless Sensing Networks: Fusion of Fast Prototyping, Modeling and Learning
21. CAREER: Augmented Solid Geometries: A Computational Framework for Multi-Material, Multi-Process, and Graded Material Design and Fabrication.
22. Phase III: Integration and Autonomy of a Fish-Inspired Robot for Cleaning, Monitoring, and Maintenance
23. CPS: TTP Option: Medium: Tasking and Control of Heterogeneous Robot Teams
24. EFRI C3 SoRo: Soft Curved Reconfigurable Anisotropic Mechanisms (SCRAM)
25. Octopus-Inspired Printing of Soft Multi-Material Structures Informed by Mobile EMG
26. Bio-Inspired Robots for Project-Based Problem Solving in Sustainability
27. CAREER: Compliance-Aware Modeling, Customization, and Optimization of Low-Cost Dynamic Robots
28. Tasking and Control of Heterogeneous Robot Teams for Contaminant Detection and Localization in Waterways
29. TBD (Kaiteki Foundation)
30. TBD (DARPA YFA 2020)
31. TBD (Venturewell)
32. TBD (NSF NRI 2020)

Proposal Details

Proposal #	Role	Year	Agency	$	% Credit	Status
1[4]	coPI	2015	DARPA	$1,000k	45.2%	declined
2	PI	2016	NSF	$607k	100%	declined
3	coPI	2017	Intel Foundation	$199k	50%	declined
4	coPI	2017	NSF	$1,470k	14%	declined
5	PI	2017	NSF	$429k	50%	declined
6	coPI	2017	Army	$5,000k	7%	declined
7	coPI	2017	Army	$12,000k	5%	declined
8	PI	2017	NSF	$651k	34%	declined
9	coPI	2017	ONR	$2M	25%	**funded**
10	coPI	2017	NextFlex	$700k	20%	declined
11[5]	PI	2017	KEEN	$12k	100%	**funded**
12	PI	2017	SRP	$61k	100%	**funded**
13	coPI	2017	ONR	$119k	50%	declined
14	PI	2017	Women & Philanthropy	$100k	70%	declined
15	PI	2018	SRP	$62k	100%	**funded**
16	coPI	2018	Kern Family Foundation	$3,207k	5%	**funded**
17	coPI	2018	NSF	$750k	25%	declined
18	PI	2018	AFOSR	$1,500k	34%	declined
19	PI	2018	AFOSR	$450k	33%	declined
20	coPI	2018	NSF	$300K	33%	**funded**
21	PI	2018	NSF	$500k	100%	declined
22	PI	2019	SRP			declined
23	PI	2019	NSF			pending
24	coPI	2019	NSF	$2M		**funded**
25	PI	2019	ONR			pending
26	PI	2019	Venturewell			declined
27	PI	2019	NSF			pending
28[6]	PI	2019	ASU	$15k		**funded**
29[7]	PI	2019	Kaiteki			(planned)
30	PI	2019	DARPA			(planned)
31[8]	PI	2019	Venturewell			(planned)
32	PI	2020	NSF			(planned)

PRESS COVERAGE

Origami-Inspired Robotics

- Catalyst: Keeping the water flowing with robotic fish Arizona, PBS, July 11, 2018
- Lifeblood Of The Desert: Salt River Project Teams Turn To ASU Robots To Maintain Canal System, KJZZ, April 11, 2018
- Robotic fish could help solve problem in Arizona canals, ABC15, November 21, 2017
- Polytechnic students try robots on real-world problems, East Valley Tribune, November 12, 2017

[4] Not found in Dashboard. Done during transition to ASU; never recorded as an ASU proposal for some reason.
[5] Internal ASU Funding
[6] Internal ASU Funding
[7] Internal ASU Funding
[8] Invited resubmition of #26

- ASU Polytechnic researchers are developing small robots from plastic, The State Press, November 2, 2017
- ASU students are using robots to solve problems from health to public safety, 12 News, October 24, 2017
- The Origami Revolution, Nova, February 15, 2017
- The Origami Code, Documentary, 2016
- Flat-packed, foldable 3-D-printed robots could teach kids to code, Boston Globe, September 9, 2015

C-Turtle

- C-Turtle, le robot tortue en carton qui doit un jour explorer Mars, France 24, August 25, 2017
- Video Friday: Boston Dynamics, Inflatable Robots, and Japan's Space Ball, IEEE Spectrum, July 28, 2017
- C-Turtle: The landmine-detecting robot 'turtle', BBC NEws, July 22, 2017
- ASU Robotics turns to nature for inspiration, CBS5, June 5, 2017
- Using Turtles For Robot Inspiration, KJZZ, June 1, 2017
- This Crawling C-Turtle Robot Could Hunt For Landmines, Inverse, May 26, 2017
- These robotic turtles could save your life, New York Post, May 25, 2017
- Researchers want these robotic turtles to sweep for landmines in war zones, BGR, May 24, 2017
- Robotic turtles can be used to detect landmines in the desert, New Scientist, May 24, 2017

Misc

- Arizona State University makes top-10 for alumni working in Silicon Valley, KTAR, May 7, 2017
- In Search of a Robot More Like Us, New York Times, July 11, 2011

This is the end of the CV