

Erin E. Sutton

CONTACT INFORMATION	Ph.D. Candidate Laboratory for Computational Sensing and Robotics Johns Hopkins University 3400 N. Charles St. Baltimore, MD 21218	419-343-9204 esutton5@jhu.edu
INTERESTS	medical device design, multisensory integration, control systems, locomotion, lower limb prosthetics, appropriate technology	
EDUCATION	Johns Hopkins University , Baltimore, MD Ph.D., Mechanical Engineering, <i>Expected Graduation: May 2017</i> Focus: Robotics Thesis Topics: <i>Multisensory Locomotor Control</i> and <i>Bioelectric Endovascular Navigation</i> Advisors: Noah J. Cowan, Nassir Navab University of Dayton , Dayton, OH B.M.E., Mechanical Engineering Graduation: May 2012 Minor: Spanish Language <i>Magna Cum Laude</i> Advisor: Kimberly E. Bigelow	
RESEARCH AND PROFESSIONAL EXPERIENCE	Graduate Research Assistant Aug 2013–Present Computer-Aided Medical Procedures Johns Hopkins University and Technische Universität München Supervisor: Nassir Navab Graduate Research Assistant Aug 2012–Present Locomotion in Mechanical and Biological Systems Laboratory Johns Hopkins University Supervisor: Noah J. Cowan Clinical Research Director May 2012–Aug 2012 Dayton Artificial Limb Clinic Supervisor: Tracy Slemker, C.P.O. Student Laboratory Director Jan 2009–May 2012 Engineering Wellness and Safety Laboratory University of Dayton Supervisor: Kimberly E. Bigelow Co-Op and Co-Op Supervisor May 2010–Aug 2011 Product Development Prosthetic Design, Inc. Supervisor: Paul Galloway Co-Op May 2008–Dec 2009 Research and Development Deep Springs Technology Supervisor: Oliver Strbik, P.E.	
REFEREED JOURNAL PUBLICATIONS	<ol style="list-style-type: none">Sutton, E.E., Demir, A., Stamper, S.A., Fortune, E.S., Cowan, N.J. “Dynamic modulation of visual and electrosensory gains for locomotor control.” <i>Journal of the Royal Society Interface</i>. 13(118):20160057, May 2016.Taylor, M.R., Sutton, E.E., Diestelkamp, W.S., and Bigelow, K.E. “Subtle differences during posturography testing can influence postural sway results: The effects of talking, time prior to data acquisition, and visual fixation.” <i>Journal of Applied Biomechanics</i>. 31(5):324-329, Oct 2015.	

3. Hoskins, R.D., **Sutton, E.E.**, Kinor, D., Schaeffer, J.M., and Fatone, S. "Using vacuum-assisted suspension to manage residual limb wounds in persons with transtibial amputation: A case series." *Prosthetics and Orthotics International*. 38(1):68-74, Feb 2014.
4. Staubach, S. and **Sutton, E.E.** "Maintaining function after an amputation revision: A case report." *Journal of Prosthetics and Orthotics*. 25(2):95-97, Apr 2013.
5. Mack, H., **Sutton, E.E.**, and Hoskins, R.D. "Shuttle lock suspension supplemented with suction for a person with transfemoral amputation." *Journal of Prosthetics and Orthotics*. 25(4):188-192, Jan 2013.
6. **Sutton, E.E.**, Hoskins, R.D., and Fosnight, T.R. "Using elevated vacuum to improve functional outcomes: A case report." *Journal of Prosthetics and Orthotics*. 23(4):184-189, Nov 2011.

PRESENTATIONS

1. Fuerst, B.*, **Sutton, E.E.***, Ghotbi, R., Cowan, N.J., Navab, N. "Bioelectric Navigation: A New Paradigm for Intravascular Device Guidance." International Conference on Medical Image Computing and Computer Assisted Intervention. Athens, Greece. 17-21 Oct 2016.
2. **Sutton, E.E.**, Stamper, S.A., Demir, A., Fortune, E.S., Cowan, N.J. "Measuring multisensory integration in weakly electric fish." Society for Integrative and Comparative Biology Mid-Atlantic Regional Meeting. Newark, NJ. 7 Nov 2015.
3. **Sutton, E.E.**, Stamper, S.A., Demir, A., Mitchell, T.R., Fortune, E.S., Cowan, N. J. "Multisensory control of locomotion in weakly electric fish." Society for Integrative and Comparative Biology. Austin, TX. 3 Jan 2014.
4. **Sutton, E.E.** "Rehabilitation engineering: Design of a shower transfer seat." ASME Student Professional Development Conference. Toledo, OH. 23-25 Mar 2012.
5. **Sutton, E.E.**, Kinor, D.M., Denzinger, C., Jules, A., and Bigelow, K.E. "Variations in posturography testing methods: Effects of talking, visual fixation, and time on plate on postural sway measurements." American Society of Biomechanics. San Jose, CA. 2-5 Aug 2011.
6. **Sutton, E.E.**, Bare, D., Taylor, M., Kinor, D., Schaeffer, J., Jules, A., and Bigelow, K.E. "Minimizing postural instability when carrying a load: The effects of carrying grocery bags on the elderly." American Society of Biomechanics. Providence, RI. 3-6 Aug 2010.
7. **Sutton, E.E.** . "CAD/CAM fabrication of prosthetic limbs." ASME Student Professional Development Conference. Grand Rapids, MI. 22-24 Mar 2011.

TRADE PUBLICATIONS

1. Kinor, D.M., Gaussa, E., and **Sutton, E.E.** "Alternatives to soft dressings: A review." *Orthotics and Prosthetics Edge*. Dec 2013.
2. **Sutton, E.E.**, Gaussa, E., Staubach, S., and Busch, L.B. "Prosthetic prescription for an obese patient: A case report." *Orthotics and Prosthetics Edge*. May 2013.
3. **Sutton, E.E.**, Hoskins, R.D., and Fosnight, T.R. "Successful incorporation of engineers into patient care: A case report." *Orthotics and Prosthetics Edge*. Apr 2012.
4. **Sutton, E.E.** and Hoskins, R.D. "Tracking long-term functional development with a prosthesis: A case report." *Orthotics and Prosthetics Edge*. Oct 2011.

AWARDS

Fellowships and Grants

- Scholar, Achievement Rewards for College Scientists 2015–2016
- Graduate Research Fellowship, National Science Foundation Aug 2012–Aug 2015
- Learn, Lead, and Serve Grant, Univ. of Dayton Jan 2011
- Cordell W. Hill International Fellowship, Univ. of Dayton May 2009
- Joseph Militello Memorial Endowed Scholarship, Univ. of Dayton Aug 2008

Awards

- 2nd Place, Old Guard Oral Presentation, ASME Mar 2012
- Brother Andrew R. Weber, S.M., Award of Excellence for Outstanding Service and Achievement in Mechanical Engineering, Univ. of Dayton Apr 2011

TEACHING 530.646 – Robot Devices, Kinematics, Dynamics, and Control Fall 2015
ASSISTANTSHIPS Instructor: Noah J. Cowan
Johns Hopkins University

530.353 – Materials Selection Fall 2014
Instructor: Steven Marra
Johns Hopkins University

530.343 – Design and Analysis of Dynamical Systems Spring 2014
Instructor: Steven Marra
Johns Hopkins University

EGR 103 – Introduction to Innovation and Design Spring 2010–Spring 2012
Instructor: Kimberly E. Bigelow
University of Dayton

STEM OUTREACH • STEM Achievement in Baltimore Elementary Schools, group leader Sep 2013–Present
• Johns Hopkins University RoboChallenge, judge and photographer Apr 2013–Present
• Girl Scouts STEM Day, activity leader Oct 2015
• FIRST Tech Challenge, judge Jan 2013
• COSI Girls Discover...Engineering!, presenter Nov 2011
• FIRST Lego League, mentor Mar–Apr 2010
• Engineers in Technical Humanitarian Opportunities of Service-Learning, researcher for Grupo Fenix in Nicaragua May–Aug 2009