STEPHANIE LUTTON CAREY
1212 Cuttingin Place
Tampa, FL 33612

Phone: 813-785-0664 E-mail: stephcarey@gmail.com

EDUCATION

2008	Ph.D.	Biomedical Engineering University of South Florida Tampa, Florida
2000	M.S.	Biomedical Engineering University of Miami Miami, Florida
1996	B.S.	Engineering Science, Biomedical University of Florida Gainesville, Florida

PROFESSIONAL EXPERIENCE

2012 – present	Assistant Research Professor	University of South Florida Mechanical Engineering Tampa, Florida
2017- present	Courtesy Faculty	University of South Florida School of Music Tampa, Florida
2008 – 2012	Post-doctoral Scholar	University of South Florida Mechanical Engineering Tampa, Florida
2008-present	Research Coordinator	University of South Florida Center for Assistive, Rehabilitation & Robotics Technologies (CARRT) Tampa, Florida
2009 – Present	Researcher	Tampa VA RR&D/HSR&D Center of Innovation on Disability and Rehabilitation Research (CIDRR8)
2003 – 2012	Instructor	University of South Florida

		Mechanical Engineering Tampa, Florida
2010	Content Expert Writing Team	NASA Curriculum Project University of South Florida Coalition of Science Literacy
2004 – 2008	Research Assistant Technical Advisor	University of South Florida Mechanical Engineering Motion Analysis Laboratory Tampa, Florida
2001-2003	Systems Engineer Customer Trainer	Peak Performance Technologies Englewood, Colorado
2002-2003	Adjunct Math Instructor	Front Range Community College Boulder, Colorado
1996-2000 1993-1995 (summer)	Research Associate Research Assistant	The Miami Project to Cure Paralysis University of Miami, School of Medicine Miami, Florida

PATENTS

[P1] Gatto A, Carey SL, "Wrist-Hand Orthosis Don/Doff Stand," Provisional Patent, Ref. No. 18A067.

[P2] Wernke M, Phillips S, Lura D, Carey SL, Dubey R, "Prosthesis or Orthosis Slip Detection Sensor and Method of Use," Patent number: 9,848,822.
This device is an optical parallax sensor that measures motion between prosthetic socket or orthotic device and the limb surface.
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[J1] Carey SL, Stevens, PM, Highsmith MJ, "Differences in Myoelectric and Body-Powered Upper-Limb Prostheses: Systematic Literature Update 2013-2016," *J Prosthet Orthot,* 29:4S (2017), pp.17-20.

[J2] Carey SL, Lura DJ, Highsmith MJ, "Differences in Myoelectric and Body-Powered Upper Limb Prostheses: A Systematic Literature Review", *J Prosthet Orthot,* 29:4S (2017), pp.4-16.

[J3] Lura, DJ, Kahle J, Wenke M, Miro R, Carey SL, Highsmith MJ, "Crossover Study of Amputee Stair Ascent and Descent Biomechanics Using Genium and C-Leg Prostheses with Comparison to Non-Amputee Control Gait and Posture," *Gait and Posture*, 58

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[J4] Highsmith MJ, Kahle, JT, Miro R, Cress EM, Lura DJ, Quillen WS, Carey SL, Dubey RV, Mengelkoch L, Functional Performance Differences Between the Genium and C-Leg Prosthetic Knees and Intact Knees, *Journal of Rehabilitation Research & Development (JRRD),* 53:6 (2016), pp. 753-66.

[J5] Highsmith MJ, Kahle JT, Miro RM, Lura DJ, Carey SL, Wernke MM, Kim SH, Quillen WS, Differences in Military Obstacle Course Performance Between Three Energy-Storing and Shock Adapting Prosthetic Feet in High-Functioning Transtibial Amputees: Double-Blind, Randomized Control Trial, *Mil Med*, 181:S4 (2016), pp. 45-54.

[J6] Highsmith MJ, Kahle JT, Wernke MM, Carey SL, Miro RM, Lura DJ, Sutton BS, Effects of the Genium Knee System on Functional Level, Stair Ampulation, Perceptive and Economic Outcomes in Transfemoral Amputees, *Technol Innov*, 18:2-3,(2016) pp.139-50.

[J7] Highsmith MJ, Kahle JT, Miro RM, Cress ME, Quillen WS, Carey SL, Dubey RV, Mengelkoch LJ, Concurrent Validity of the Continuous Scale-Physical Functional Performance-10 (CS-PFP-10) Test in Transfemoral Amputees, *Technol Innov*, 18:2-3 (2016), pp.185-91.

[J8] Highsmith MJ, Lura DJ, Carey SL, Mengelkoch LJ, Kim SH, Quillen WH, Kahle JT, Miro RM, Correlations between residual limb length and joint moments during sitting and standing movements in transfemoral amputees, *Prosthet Orthot Int (POI)*, 40:4 (2016), pp. 522-27. PMID: 25628379.

[J9] Carey SL, Lura DJ, Highsmith MJ, Differences in Myoelectric and Body-Powered Upper Limb Prostheses: A Systematic Literature Review, *Journal of Rehabilitation Research & Development*, 52:3 (2015), pp. 247-62.

[J10] Peterson MJ, Jongprasithporn M, Carey SL, Evaluation of Fall Recovery and Gait Adaptation to Medial and Lateral Gait Perturbations, *Biomed Sci Instrum* 51 (2015) pp. 198-205. PMID: 25996718.

[J11] Lura DJ, Wernke MM, Carey SL, Kahle JT, Miro RM, Highsmith MJ, Differences in Knee Flexion between the Genium and C-Leg Microprocessor Knees While Walking on Level Ground and Ramps, *Clinical Biomechanics*, 30:2 (2015), pp.175-81.

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[J13] Wernke MM, Lura DJ, Carey SL, Highsmith MJ, Design and Performance of a Push-Up Device for Above-Elbow Amputees: A Technical Note, *Technol and Innov*, 15:4 (2014), pp. 297-300.

[J14] Highsmith MJ, Kahle JT, Lura DJ, Dubey RV, Carey SL, Quillen WS, Menglekoch LJ, Short and Mid-Distance Walking and Posturography with a Novel Microprocessor Knee, *Technol and Innov*, 15:4 (2014), pp. 359-368.

[J15] Highsmith MJ, Kahle JT, Miro RM, Lura DJ, Dubey RV, Carey SL, Quillen WS, Menglekoch LJ, Perceived Differences Between the Genium and the C-Leg Microprocessor Prosthetic Knees in Prosthetic-Related Function and Quality of Life, *Technol and Innov*, 15:4 (2014), pp. 369-375.

[J16] Lee SH, Carey SL, Dubey R, Matz R. Intervention Program in College Instrumental Musicians, with Kinematics Analysis of Cello and Flute Playing. *Medical Problems of Performing Artists*, 27:2 (2012) pp. 85-94.

[J17] Highsmith MJ, Kahle JT, Carey SL, Lura DJ, Dubey RV, Csavina KR, Quillen WS. Kinetic Asymmetry in Transfemoral Amputees while Performing Sit to Stand and Stand to Sit Movements. *Gait & Posture*, 34:1 (2011) pp. 86-91,.

[J18] Morris ML, DeLaurentis KJ, Carey SL, Sundarrao D, Dubey RV, Highsmith MJ, Menglekoch LJ, McQueen ME. Dance and Engineering Link to Produce a Novel Mobility Device, *Technol and Innov*, 13 (2011) pp. 213-224.

[J19] Highsmith MJ, Kahle JT, Carey SL, Lura DJ, Dubey RV, Quillen WS. Kinetic Differences Using a Power Knee and C-Leg while Sitting Down and Standing Up: A Case Report. *J Prosthet Orthot* 22:4 (2010) pp. 237-243.

[J20] Highsmith MJ, Carey SL, Koelsch KW, Lusk CP, Maitland ME. Design and Fabrication of a Passive-Function, Cylindrical Grasp Terminal Device. *Prosthet Orthot Int.* 33:4 (2009), pp. 391-8.

[J21] Carey SL, Bauer G, Highsmith MJ, Dubey RV. Kinematic Comparison of Myoelectric and Body Powered Prostheses while Performing Common Activities. *Prosthet Orthot Int.* 33:2 (2009), pp. 179-86.

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[J23] Highsmith MJ, Carey SL, Koelsch KW, Lusk CP, Maitland ME. Kinematic Evaluation of Terminal Devices for Kayaking with Upper Extremity Amputation. *Journal of Prosthetics and Orthotics*, 19:3 (2007), pp. 84-90, Cited by 23 (12/2/14).

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JOURNAL ARTICLES SUBMITTED (IN REVIEW)

[S1] Knight AD, Carey SL, Miro RM, Kahle JT, Esparza WO, Dubey RV, Highsmith MJ, "Kinematic Comparison of Voluntary Opening and Closing Body-Powered Prostheses," Clinical Biomechanics, Submitted August 2017, **In Review**

[S2] Jongprasithporn M, Carey SL, Peterson M, Schulz B, Martori A, Yodpijit N, Knight A, "An Analysis of Gait Adaptations during Various Gait Perturbations," Gait and Posture, Submitted Sept. 2017, **In Review**

JOURNAL IMPACT FACTORS

Journal	Abbreviation	Impact Factor
Clinical Biomechanics	Clin Biomech	1.880
Gait and Posture	Gait Posture	2.938
Journal of Rehabilitation Research and Development	J Rehabil Res Dev	1.688
Medical Problems of Performing Artists	Med Probl Peform Ar	0.893
Military Medicine	Mil Med	1.164
Prosthetics and Orthotics International	Prosthet Orthot Int	1.185

BOOK CHAPTERS

Carey SL, Reed KB, Martori A, Ramakrishnan T, Dubey R, Evaluating the Gait of Lower Limb Prosthesis Users. In Wearable Robotics: Challenges and Trends. Biosystems & Biorobotics, 16 (2017), pp. 219-224

Hardwick D, Carey SL, Lazinski M, Lee SH, Measuring the Performer and Performance, In Scholarly Research for Musicians, By Sang-Hie Lee, Routledge, ISBN-13 (2017) pp. 978-1138208889.

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[O1] Carey SL, Lura DJ, Highsmith MJ, "Myoelectric or Body-powered Prosthesis," Critically Appraised Topics (CATs), American Academy of Orthotics & Prosthetics (AAOP) website, 10/2015, http://www.oandp.org/research/cats/

[O2] Carey SL, "Assessment Tools for Benchmarking Lower Limb Prosthetic Gait," Benchmarking Bipedal Locomotion Website, Cajal Institute, Spanish National Research Council, 03/2016, http://www.neuralrehabilitation.org/benchmarking/assessment-tools-for-benchmarking-lower-limb-prosthetic-gait-by-stephanie-l-carey/

REFEREED CONFERENCE PROCEEDINGS

[C1] Carey SL, Aguirrezabal A, Sundarrao S, Alqasemi R, Dubey R, "Enhanced Control to Improve Navigation and Manipulation of Power Wheelchairs, *40th Annual International Conference of the IEEE EMBS*, Honolulu, HI, July 2018.

[C2] Pernalete N, Raheja A, Segura M, Menychtas D, Wieczorak T, Carey SL, "Eye-Hand Coordination Assessment Metrics Using a Multi-Platform Haptic System with Eye-Tracking and Motion Capture Feedback," *40th Annual International Conference of the IEEE EMBS*, Honolulu, HI, July 2018.

[C3] Gatto A, Carey SL, "Design and Development of a Wrist-Hand Orthosis for Individuals with a Spinal Cord Injury," *International Society for Gerontechnology's 11th World Conference of Gerontechnology* St. Petersburg, FL, May 2018.

[C4] Carey SL, Knight AD, Highsmith MJ, "Comparison of Voluntary Open and Closing Terminal Devices using the Box and Blocks Test," *The Academy of Orthotists and Prosthetists 44th Annual Meeting and Scientific Symposium (AAOP 2018)*, New Orleans, LA, Feb. 2018.

[C5] Lura, DJ, Carey SL, Miro RM, Kahle JT, Highsmith MJ, "Gait Performance of Three

Prosthetic Feet for High-Performance Transtibial Amputees," *The Academy of Orthotists and Prosthetists 44thAnnual Meeting and Scientific Symposium (AAOP 2018),* New Orleans, LA, Feb. 2018.

[C6] Mott B, Carey SL, "Evaluating the Effectiveness of Upper Limb Orthoses in Adults with Rheumatoid Arthritis: A Systematic Review," *The Academy of Orthotists and Prosthetists 44thAnnual Meeting and Scientific Symposium (AAOP 2018),* New Orleans, LA, Feb. 2018.

[C7] Carey SL, "Development of a Rehabilitation Engineering Course," *British Society of Rehabilitation Medicine (BSRM), Rehab Week*, London, UK, July 2017.

[C8] Knight A, Carey SL, Dubey R, "Transradial Prosthesis Performance Enhanced with the Use of a Computer Assisted Rehabilitation Environment," *Proceedings of the 10th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA)*, Rhodes, Greece, June, 2017.

[C9] Knight A, Carey SL, Dubey R, "Upper Extremity Prosthetic Training and Rehabilitation with the Use of Virtual Reality," *16th World Congress of the International Society for Prosthetics and Orthotics (ISPO)*, Cape town, South Africa, May 2017.

[C10] Menychtas D, Carey SL, "Comparing the Task Joint Motion Between Able-bodied and Transradial Prosthesis Users During Activities of Daily Living," *16th World Congress of the International Society for Prosthetics and Orthotics (ISPO)*, Cape town, South Africa, May 2017.

[C11] Knight A, Carey SL, Dubey R, "Upper Extremity Prosthetic Training with the Used of a Computer Assisted Rehabilitation Environment (CAREN), *The Academy of Orthotists and Prosthetists 43rd Annual Meeting and Scientific Symposium (AAOP 2017),* Chicago, IL, March, 2017.

[C12] Pernalete N, Raheja A, Carey SL, "Haptic and Visual Feedback Technology for Upper-Limb Disability Assessment," *Proceedings of the ASME 2016 International Mechanical Engineering Conference & Exposition (IMECE2016)*, Phoenix, AZ, Nov. 2016.

[C13] Carey SL, Reed KB, Martori A, Ramakrishnan T, Dubey R, "Evaluating the Gait of Lower Limb Prosthesis Users," *The International Symposium on Wearable Robotics (WeRob)*, Segovia, Spain, October, 2016.

[C14] Menychtas, D, Carey SL, Dubey R, Lura, D (2016), "A Robotic Human Body Model with Joint Limits for Simulation of Upper Limb Prosthesis Users," *Proceedings of the 2002 EEE/RSJ International Conference on Intelligent Robots and Systems (IROS 2016)*, Daejeon, Korea. Oct., 2016.

[C15] Carey SL, Menychtas D, Sullins T, Dubey RV, "Development of a Simulation Tool for Upper Extremity Prostheses," *38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Orlando, FL , August, 2016.

[C16] Wieczorek T, Menychtas D, Pernalete N, Carey SL, "Motion Capture Feedback for Upper-Limb Disability Task Variation Assessment," *38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Orlando, FL , August, 2016.

[C17] Menychtas D, Sullins T, Rigsby B, Carey SL, Reed KB, " Assessing the Role of Preknowledge in Force Compensation During a Tracking Task," *38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*,

Orlando, FL , August, 2016.

[C18] Lee SH, Carey SL, Lazinski M, "Fit to Play: Mind-body Integration Program for Collegiate Musicians," *Medical Problems of Performing Artists, Annual Symposium of the Performing Arts Medicine Association (PAMA)*, Snowmass, CO, July 2016.

[C19] Knight A, Carey SL, Dubey R, "An Interim Analysis of the Use of Virtual Reality to Enhance Upper Limb Prosthetic Training and Rehabilitation," *Proceedings of the 9th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA)*, Corfu, Greece, June, 2016.

[C20] Menychtas D, Carey SL, Dubey R, "Simulation for Upper Limb Prosthesis Users," *2016 BMES/FDA Frontiers in Medical Devices Conference*, College Park, MD, May 2016.

[C21] Martori AL, Carey SL, "Comparison of Able-bodied and Bilateral Amputee Kinematics at Various Elevations," *2016 BMES/FDA Frontiers in Medical Devices Conference*, College Park, MD, May 2016.

[C22] Knight A, Carey SL, Dubey R, "An Interim Analysis of Upper Limb Prosthetic Training and Rehabilitation With the Use of Virtual Reality, *The Academy of Orthotists and Prosthetists 42nd Annual Meeting and Scientific Symposium (AAOP 2016)*, Orlando, FL, March, 2016.

[C23] Lopez A, Carey SL, "Human Balance: Study and Evaluation by Motion Capture, EOG and EMG Biopotentials," *Biomedical Engineering Society Annual Meeting (BMES 2015)*, Tampa, FL October 7-10, 2015.

[C24] Menychtas D, Carey SL, Dubey R, "Limiting the Available Workspace of a Robot-Human Simulation Model to Increase Accuracy," *Biomedical Engineering Society Annual Meeting (BMES 2015)*, Tampa, FL October 7-10, 2015.

[C25] Martori A, Carey SL, "Investigation of Gait Kinematics at Various Elevations in a Virtual Reality Environment," *Biomedical Engineering Society Annual Meeting (BMES 2015)*, Tampa, FL October 7-10, 2015.

[C26] Peterson M, Jongprasithporn M, Carey SL, "Evaluation of Fall Recovery and Gait Adaptation to Tripping Perturbations," *Biomedical Engineering Society Annual Meeting (BMES 2015)*, Tampa, FL October 7-10, 2015.

[C27] Lura D, Carey SL, Dubey R, " Effect of Additional Weight on Upper Limb Pose During Activities of Daily Living," *Biomedical Engineering Society Annual Meeting (BMES 2015)*, Tampa, FL October 7-10, 2015.

[C28] Menychtas D, Carey SL, Dubey R, "Robotic Based Simulation Algorithm to Predict Optimized Compensatory Motion of Transradial Prosthesis Users," *Proceedings of the International Conference on Rehabilitation Robotics (ICORR)*, Singapore, August 2015.

[C29] Peterson MJ, Jongprasithporn M, Carey SL, "Gait Adaptations to Unexpected Drop-Away Flooring Perturbations," *Proceedings of the 39th Annual Meeting of the American Society of Biomechanics*, Columbus, OH, August 2015.

[C30] Tudor S, Carey SL, Dubey RV, "Development and Evaluation of a Dynamic Virtual Reality Driving Simulator," *Proceedings of the 8th International Conference on Pervasive Technologies Related to Assistive Environments (PETRA)*, Corfu, Greece, July 1-3rd, 2015.

[C31] Menychtas D, Carey SL, Dubey RV "Simulation Algorithm for the Upper Limb for Better Training and Prosthesis Prescription for Amputees," P*roceedings of the 8th*

International Conference on Pervasive Technologies Related to Assistive Environments (PETRA), Corfu, Greece, July 1-3rd,2015.

[C32] Menychtas D, Carey SL, Dubey R, "Upper Body Simulation Using a Robot Model with Defined Personalized Joint Workspace," *28th Florida Conference on Recent Advances in Robotics (FCRAR)*, Melbourne, FL, May 2015.

[C33] Peterson MJ, Jongprasithporn M, Carey SL, "Evaluation of Fall Recovery and Gait Adaptation to Medial and Lateral Gait Perturbations," *52nd Annual Rocky Mountain Bioengineering Symposium*, Salt Lake City, UT, April 2015.

[C34] Lazinkski M, Carey SL, Tidwell T, Lee SH, "Fit to Play: Mind-Body Integration Program for Collegiate Musicians," *USF-PAMA Conference*, Tampa, FL, Feb 27-March 1, 2015.

[C35] Menychtas D, Carey SL, Phillips S, Dubey RV, "Quantifying Compensatory Motion of Amputees for Improved Prosthetic Prescription and Training," *The Academy of Orthotists and Prosthetists 41st Annual Meeting and Scientific Symposium (AAOP 2015)*, New Orleans, LA, Feb. 2015.

[C36] Knight A, Highsmith MJ, Carey SL, "An Interim Analysis of Body Powered Prosthetic Terminal Devices," *The Academy of Orthotists and Prosthetists 41st Annual Meeting and Scientific Symposium (AAOP 2015)*, New Orleans, LA, Feb. 2015.

[C37] Tudor SM, Carey SL, Dubey RV, "The Development of a Dynamic Adaptive Driving Simulator," *Proceedings of the ASME 2014 International Mechanical Engineering Conference & Exposition (IMECE2014)*, Montreal, Canada., Nov. 2014.

[C38] Lostroscio K, Lopez AM, Carey SL, "Effectiveness of the Vicon Motion Analysis System for Outdoor Capture," *Society of Hispanic Professional Engineers National Conference*, Indianapolis, IN, USA, November 2014.

[C39] Menychtas D, Lura DJ, Carey SL, Dubey RV, "Robotics Based Human Body Model for Improvement of Upper Extremity Prostheses", *Biomedical Engineering Society Annual Meeting (BMES 2014)*, San Antonio, TX, October 22-25, 2014.

[C40] Tudor, S, Carey SL, Dubey, RV, "The Development of a Dynamic Adaptive Driving Simulator," *Biomedical Engineering Society Annual Meeting (BMES 2014)*, San Antonio, TX October 22-25, 2014.

[C41] Lopez AM, Carey SL, Morris ML, "Hip Biomechanics of Ballet Dancers in Closing First, Third and Fifth Position," *Biomedical Engineering Society Annual Meeting (BMES 2014)*, San Antonio, TX October 22-25, 2014.

[C42] Morris ML, Klein AB, Carey SL, " Biomechanics of a tendu closing: Analyzing knee motion in 1st, 3rd, and 5th positions," *International Association for Dance Medicine & Science 24th Annual Meeting*, Basel, Switzerland, Oct. 16-18, 2014.

[C43] Martori AL, Carey SL, Alqasemi R, Ashley D, Dubey RV, "Characterizing Suitability of Wearable Sensors for Movement Analysis using a Programmed Robotic Motion", *Proceedings of the ASME 2013 International Mechanical Engineering Congress & Exposition (IMECE2013)* Nov. 2013.

[C44] Lura DJ, Carey SL, Dubey RV. Study of Variation in Human Upper Body Parameters and Motion for Use in Robotics Based Simulation, Paper # 2407. *35th Annual International Conference of the IEEE EMBS*, Osaka, Japan, July 3rd-7th, 2013.

[C45] Martori A, Carey SL, Alqasemi A, Ashley D, Dubey RV, "Knee Angle Analysis Using a Wearable Motion Analysis System for Detection and Rehabilitation of Mild

Traumatic Brain Injury," *Proceedings of the ASME 2013 Summer Bioengineering Conference* (SBC 2013), Sunriver, OR, June 2013.

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[C47] Lura DJ, Wernke MM, Carey SL, Alqasemi R, Dubey, RV, Inverse Kinematics of a Bilateral Robotic Human Upper Body Model Based on Motion Analysis Data, *Proceedings of the 2013 IEEE International Conference on Robotics and Automation, (ICRA 2013),* Karlsruhe, Germany. May 2013.

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[C65] Morris ML, DeLaurentis KJ, Highsmith MJ, Carey SL, Mengelkoch LJ. Re-Conceptualizing Wheelchair Design through the Lens of Dance and Implementing Assessment Strategies. *National Academy of Inventors (NAI) Inaugural Annual Conference*, Feb. 2012, Tampa, FL.

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[C71] Carey SL, Highsmith MJ, Dubey RV, Lura DJ, Wernke M. Golf Hand Prosthesis Performance. *The Academy of Orthotists and Prosthetists 37th Annual Meeting and Scientific Symposium (AAOP 2011)*, Orlando, FL. March 2011.

[C72] Lura DJ, Wernke Wernke M, Saad J, Highsmith MJ and Carey SL. Standing Stability in Transfemoral Amputees. *The Academy of Orthotists and Prosthetists 37th Annual Meeting and Scientific Symposium (AAOP 2011)*, Orlando, FL. March 2011.

[C73] Highsmith MJ, Kahle JT, Lura DJ, Carey SL, Csavina KR, Dubey RV, Quillen WS. Sitting and Standing in Transfemoral Amputees. *The Academy of Orthotists and Prosthetists 37th Annual Meeting and Scientific Symposium (AAOP 2011)*, Orlando, FL. March 2011.

[C74] Wernke MM, Lura DJ, Carey SL, Dubey R. A Spring-Loaded Pole Design for Calibration of Force Platforms, *Proceedings of the 2010 ASME International Mechanical Engineering Congress and Exposition (IMECE 2010)*, November 12 – 18, 2010, Vancouver, BC, Canada.

[C75] Lura DJ, Carey SL, Dubey R. Validation of Functional Methods for Calculating the Shoulder Joint Center Using 3D Motion Analysis, *Proceedings of the 2010 ASME International Mechanical Engineering Congress and Exposition (IMECE 2010)*, November 12 – 18, 2010, Vancouver, BC, Canada.

[C76] Sinatra FL, Carey SL, Highsmith MJ, Dubey R. Biomechanical Model Representing Energy Storing Prosthetic Feet, *Proceedings of the 2010 ASME International Mechanical Engineering Congress and Exposition (IMECE 2010)*, November 12 – 18, 2010, Vancouver, BC, Canada.

[C77] Morris ML, DeLaurentis KJ, Highsmith MJ, Carey SL, Menglekoch L. Evaluation of an assistive mobility device for dance training and performance. *International Association for Dance Medicine & Science 20th Annual Meeting*. Birmingham, UK. October 2010.

[C78] Menglekoch L, Highsmith MJ, DeLaurentis KJ, Carey SL, Morris ML. Comparison of the metabolic demands of three mobility devices using standardized dance activity. *International Association for Dance Medicine & Science 20th Annual Meeting*. Birmingham, UK. October 2010.

[C79] Carey SL, Highsmith MJ, Dubey RV. The effect of trimline height on elbow range of motion while wearing a transradial prosthesis, *The Academy of Orthotists and Prosthetists 36th Annual Meeting and Scientific Symposium (AAOP 2010)*, Chicago, IL. Feb 2010.

[C80] Freilich RS, Carey SL , Highsmith MJ, Dubey RV. Biomechanical model of transhumeral prostheses. *The Academy of Orthotists and Prosthetists 36th Annual Meeting and Scientific Symposium (AAOP 2010)*, Chicago, IL. Feb 2010.

[C81] Lura DJ, Carey SL, Highsmith MJ, Dubey RV. Robot Kinematics Based Model to Predict Compensatory Motion of Transradial Prosthesis while Performing Common Activities. *Proceedings of the 2009 IEEE International Conference on Robotics and Automation, (ICRA 2009)*, pp. 3104-3109, Kobe, Japan, May, 2009.

[C82] Lura DJ, Carey SL, Highsmith MJ, Dubey RV. Robotic Model for Simulating Upper Body Movement. *Proceedings of the 2009 IEEE International Conference on Robotics and Biomimetics, (ROBIO 2009)*, pp. 1135-1139. Bangkok Thailand, Feb. 2009.

[C83] Carey SL, Highsmith MJ, Dubey RV. The Effects of Wearing a Transradial Myoelectric Prosthesis on Range of Motion of the Elbow. *Proceedings of the ASME 2009 Summer Bioengineering Conference (SBC 2009).* Lake Tahoe, CA. June 2009.

[C84] Carey SL. A kinematic comparison while using body-powered and myoelectric prostheses during common tasks: A case study. *The Academy of Orthotists and Prosthetists 35th Annual Meeting and Scientific Symposium (AAOP 2009),* Atlanta, GA. March 2009.

[C85] Lura DJ, Dubey RV, Highsmith MJ, Carey SL , "Simulated Compensatory Motion of Transradial Prostheses," Proceedings of the 2008 ASME International Mechanical Engineering Congress and Exposition (IMECE 2008) October 31- November 6, 2008, Boston, MA.

[C86] Carey SL, Highsmith MJ, Dubey RV. Kinetics of transradial prosthesis users during two tasks**.** *Biomedical Engineering Society Annual Meeting (BMES 2008).* St. Louis, MO, October, 2008.

[C87] Carey SL, Highsmith MJ, Dubey RV. Motion analysis of transradial prosthesis users while lifting a box for development of a biomechanical model. *Proceedings of the ASME 2008 Summer Bioengineering Conference (SBC 2008).* Marco Island, FL. June 2008.

[C88] Lura DJ, Highsmith MJ, Carey SL, Dubey RV. Kinetic differences in a subject with two different prosthetic knees while performing sitting and standing movements. *Proceedings of the ASME 2008 Summer Bioengineering Conference (SBC 2008).* Marco Island, FL, June 2008.

[C89] Highsmith MJ, Kahle JT, Lura DJ, Carey SL, Dubey RV, Quillen WS, Kinetic Evaluation of Powered versus Non-Powered Prosthetic Knee Mechanisms. *Clinical Translational Science Awards (CTSA) KL2, K12 and K30 Clinical Research Scholars and Association for Clinical Research Training (ACRT) National Annual Meeting*. Washington, D.C. 2008.

[C90] Carey SL. Compensatory motion of a transradial prosthesis wearer during common tasks. *The Academy of Orthotists and Prosthetists 34th Annual Meeting and Scientific Symposium (AAOP),* Orlando, FL. Feb. 2008.

[C91] Carey SL, Highsmith MJ, Dubey RV. Compensatory motion caused by forearm restriction while turning a steering wheel for transradial prosthetic design. *13th National Conference on Machines and Mechanisms (NaCOMM 2007)*, Bangalore, India. Dec. 2007.

[C92] Carey SL, Highsmith MJ, Dubey R. Compensatory range of motion of transradial prosthesis users while opening a door. *Biomedical Engineering Society Annual Meeting.* Hollywood, CA. September 2007.

[C93] Maitland ME, Lusk CP, Highsmith MJ, Carey SL, A non-anatomical grasp mechanism for artificial hands. *12th World Congress of the International Society for Prosthetics and Orthotics.* Vancouver, Canada. August 2007.

[C94] Maitland ME, Highsmith MJ, Carey SL, Koelsch K, Lusk CP. A simple artificial hand for cylindrical grip: The USF Kayak Hand. *15th International Conference "World Physical Therapy 2007*." Vancouver, Canada. June 2007.

[C95] Carey SL, Highsmith MJ, Dubey R. Compensatory motion during a bilateral lifting task for transradial prosthetic design. *Proceedings of the ASME 2007 Summer Bioengineering Conference (SBC2007).* Keystone, CO. June 2007.

[C96] Carey SL, Highsmith MJ, Dubey R. Range of Motion of Upper Limb Joint Angles during Two Tasks for Transradial Prosthetic Design. *Proceedings of the ASME 2007 International Design Engineering Technical Conferences & Computers and Information in Engineering Conference (IDETC 2007),* pp. 701-705.

[C97] Carey SL, Dubey R, Highsmith MJ. Compensatory motion of the upper limb while turning a steering wheel for transradial prosthetic design. *3rd Annual Interdisciplinary Graduate Student Research Symposium.* University of South Florida, Tampa, FL. April 2007.

[C98] Carey SL, Dubey R, Maitland ME, Highsmith MJ. Effects of mass on upper limb joint angles for prosthetic design. *Biomedical Engineering Society Annual Meeting (BMES 2006)*. Chicago, IL. October 2006.

[C99] Carey SL. Effects of mass on upper limb kinematics for prosthetic design: A pilot study. *2nd Annual Interdisciplinary Graduate Student Research Symposium.* University of South Florida, Tampa, FL. April 2006.

[C100] Lutton, S, et al. A force measuring walker for SCI gait evaluation. *19th Southern Biomedical Engineering Conference.* Blacksburg, VA. April 2000.

[C101] Lutton S, et al. Integrated timing device for improved standing exercise of paraplegics. *18th Southern Biomedical Engineering Conference*. Clemson, SC. May 1999.

INVITED PRESENTATIONS

- Invited Workshop Presentation, International Conference on Pervasive Technologies Related to Assistive Environments (PETRA), July, 2015.
- Invited speaker, University of Zurich, Switzerland, Nov. 2014.
- Invited speaker, University of Applied Sciences Ravensburg-Weingarten, Germany, 50th Anniversary Celebration, Nov. 2014.
- Invited speaker, Spanish Research Council, Cajal Institute, Madrid, Spain, Nov. 2014.
- Invited speaker for the Space Life Sciences Lab Seminar Series, "Bioastronautics and Human Body Modeling and Simulation," June 2012.
- Keynote speaker at the Florida Conference on Recent Advances in Robotics (FCRAR), "Overview of the Center for Assistive, Rehabilitation, and Robotics Technologies," May 2012.
- Invited speaker for Slithering Visions: Arts Research Day, "Health Intervention Program for College Instrumental Musicians," April 2012.
- Invited presentation for the Distinguished Post-Doctoral Seminar Series, California Polytechnic University, Pomona, CA, "Assistive and Rehabilitation Technologies," 2009.

GRANTS AND CONTRACTS

Pending

1. "Comparison of the Performance of K3-K4 Level Prosthetic Feet," DOD Orthotics and Prosthetics Research Program, $1.4 million, submitted Jan. 2018, Role: PI.

Current

1. "Balance Based Torso Weighting and Core Exercise to Improve Balance and Gait in Women with Multiple Sclerosis," Women's Health Collaborative Grant, University of South Florida Women's Health, $15,000, 07/01/2018-06/30/2019. **Co-I**, PI (Stephenson).
2. "Biomechanics for Enhancement & Verification of Countermeasure Analysis Tools for Human Exploration Missions," NASA, $65,620, 08/21/2017-08/20/2018, **PI.**
3. "Rehabilitation Engineering and Technology Program," Florida Department of Education, $1,644,130/year 7/1/2015 - 06/30/2018, **Co-I**, PI (Dubey).
4. "Using Virtual Reality and Robotics Technologies for Vocational Evaluation, Training and Placement," FL Department of Education, $730,214, 1/01/2012 - 3/31/2018, **Co-PI**, PI (Dubey).
5. "MRI: Acquisition of a CAREN Virtual Reality System for Collaborative Research in Assistive and Rehabilitation Technologies," National Science Foundation, $450,000 + $87,245 supplement, 09/01/2012 - 08/31/2018, **Key Personnel**, PI (Dubey).

Completed

1. "Development of Simulation Tool for Upper Extremity Prostheses," Continuation Department of Defense, FY13 Joint Warfighters Medical Research Program, United States Army Medical Research and Materiel Command, $636,284, 12/16/14-12/31/17, **Co-PI,** PI (Dubey).
2. "The BullHorn: A Geological Sample Procurement and Storage Device, NASA Florida Space Grant Consortium, $6000, 06/05/2017-12/19/2017.
3. "USF Planning Grant: I/UCRC for iPERFORM Center for Assistive Technologies to Enhance Human Performance," NSF, $15,000, 2/15/2017-1/31/2018, **PI.**
4. "I-Corps Teams: Wireless Hands-Free Mobile Wheelchair Control Kit," National Science Foundation, $50,000, 08/15/2016-12/31/2017, **PI**.
5. "Biomechanical Evaluation of Therapeutic Containment," VA Central Office, $50,465 7/1/2016-9/30/2017, **PI**.
6. "Micro-g Next: 3 Student Teams," NASA Florida Space Grant Consortium, $5,136. 5/1/2015-10/31/2015, **PI**.
7. "Gait Perturbations Systems for Balance Recovery," James A. Haley VA Hospital, 09/1/2012-9/30/2015, $63,165 **Subcontractor**, PI (Peterson).
8. "Knee Biomechanics and Muscle Activation Patterns during Gait in Female Dancers," $7,833, USF Women's Health Collaborative See Grant, 05/01/14-04/30/15, **Co-I**, Teran-Yengle (PI).
9. "USF-PAMA, Caring for Artists and Arts that Heal," USF Conference Support Grant, $4,265, 02/27/15-03/1/15, **Co-PI**.
10. "Graduate Students Encouraging STEM Learning with Bioastronautics." NASA Florida Space Grant Consortium (FSGC) training grant, $12,500, 11/15/2013-05/31/2015, **PI.**
11. "Functional Comparison of Voluntary Opening versus Voluntary Closing Body-Powered Terminal Devices in Transradial Amputees." TRS (Boulder, CO). $24,999, 06/01/2013-01/29/2015, **Co-I**, Highsmith (PI).
12. "Functional Comparison of Voluntary Opening versus Voluntary Closing Body-Powered Terminal Devices in Transradial Amputees." USF Connect- Florida High-Tech Corridor. Industry Seed Grant. $24,999, 07/01/2013-06/30/2014, **Co-I,** Highsmith (PI).

13. "Development of Simulation Tool for Upper Extremity Prostheses," U.S. Department of Defense, TATRC, $700,000, 9/30/10-10/01/14. **Co-I**, Dubey (PI).
14. "Myoelectric versus Body-Powered Upper Limb Prostheses Evidence Report," American Academy of Orthotists & Prosthetists, $9,500, 05/1/2013-05/1/2014, **PI.**
15. "Human Upper Body Modeling and Simulation in Space Conditions for Astronaut Training," NASA Florida Space Grant Consortium (FSGC) training grant, $25,000, 9/1/2011-8/31/2013, **PI**.
16. "Development of an Undergraduate Engineering Course: Introduction to Bioastronautics," NASA Florida Space Grant Consortium (FSGC) training grant, $12,500, 9/1/2011-8/31/2013, **PI**.
17. "Comparative Outcomes Assessment of the C-Leg and X2 Knee Prosthesis: A Pilot Study." USF Connect- Florida High-Tech Corridor. Industry Seed Grant. $105,000, **Co-I,** Highsmith (PI).
18. "Comparative Outcomes Assessment of the C-Leg and X2 Knee Prosthesis: A Pilot Study." Otto Bock Healthcare. $210,000, **Co-I,** Highsmith (PI).
19. "Service Contract for Academic and Scientific Collaboration between Colleges of Engineering at King Abdulaziz University and the University of South Florida," King Abdulaziz University, $315,454, 1/01/2009 - 06/30/2013, **Key personnel**, PI (Dubey).
20. "Development of a Wearable Motion Analysis System for Evaluation and Rehabilitation for TBI," University of South Florida Veterans Reintegration grant, $40,000, 5/1/2011-7/31/2012, **PI.**
21. "Upper Limb Prostheses and Amputee Toolkit," James A. Haley VA Center of Excellence. **Subcontractor:** $15,000/year, 02/011/ 2009-7/31/2012.
22. "Assistance in Developing Processes of Care in Regional Amputation Centers and Polytrauma Amputation Network Sites," James A. Haley VA Hospital, 2010, **Key Personnel**, PI (Elnistsky).
23. "Promoting Engineering, Math and Science through Lego Mindstorms NXT Robotic Kits", The Delta Kappa Gamma Educational Foundation, 2010, **PI.**
24. "Feasibility of Wearable Sensors to Determine Gait Parameters," Draper Laboratory, University Research & Development Program, 2011, **Co-PI**, PI (Dubey).
25. "Analysis, Evaluation and Modification of Vibrotactile Balance Prosthesis," Draper Laboratory, University Research & Development Program, 2010, **Co-PI**, PI (Dubey).
26. "Test bed for Assistive and Rehabilitation Robotic Technologies," U.S. Department of Defense, 2008-2010, **Co-PI**, PI (Dubey).
27. "Kinetic and Kinematic comparison of power assisted versus stance control artificial knees during sit to stand and stand to sit transfers for above knee amputees," Corporate Travel Grant from Ossur Prosthetics, 2006-2007, **Co-PI,** PI (Highsmith).
28. "Design, Fabrication and Evaluation of a Terminal Device for Kayaking," Florida Physical Therapy Association (FPTA), Linda Krane Research Grant, 2006, **Co-PI**, PI (Highsmith).

INSTRUCTION AND COURSE DEVELOPMENT

Biomedical Instrumentation

University of South Florida	Fall	2018

Rehabilitation Engineering -developed

University of South Florida	Fall	2016-present

Introduction to Bioastronautics
University of South Florida Spring 2013-present
Approved as new course Oct. 2012 (BME 4440)
Approved graduate level course July 2014 (BME 6440)
Foundations of Engineering
University of South Florida Fall, Spring 2003- 2012
Human Factors, guest lecturer
University of South Florida Spring 2012-2017
Fit To Play: Music, Mind, Body, lab portion Fall 2012-2017
University of South Florida
Innovating Quality of Life Technology; guest lecturer
University of South Florida Spring 2012
Movement Science III, laboratory portion, Physical Therapy doctoral course
University of South Florida Fall 2008- 2014
Trigonometry and College Algebra
Front Range Community College 2002-2003

HONORS AND AWARDS

- 2018 Excellence in Innovation Award, National Academy of Inventors, USF Chapter
- 2018 University of South Florida Nexus Initiative (UNI) Award, $13,500, April 2018.
- Florida DKG Educational Foundation Professional Development Award, $1260, March 2017.
- Faculty International Travel Grant, University of South Florida, $2500, March 2017.
- Lucile Cornetet Professional Development Award, Delta Kappa Gamma, $2000 for travel, Sept. 2014.
- Invited attendee to 8th Annual "Enhancing Rehabilitation Research in the South" (ERRIS) Intensive NIH Grant Preparation Workshop. Sponsored by Grant# 1T15HD050255-03A1 from NIH-NICHD-NCMRR. Charlottesville, VA, Feb. 2010.
- Student Travel Award: $500, *3rd Annual Interdisciplinary Graduate Student Research Symposium*, supported by NSF IGERT and Bridge to Doctorate program, University of South Florida, April 2007.
- Student Travel Award: $500, *2nd Annual Interdisciplinary Graduate Student Research Symposium,* supported by NSF IGERT and Bridge to Doctorate program, University of South Florida, April 2006.
- Student Conference Award supported by the Whitaker Foundation, given at the *19th Southern Biomedical Engineering Conference*, April 2000.

PROFESSIONAL ACTIVITIES

- National Academy of Inventors (NAI), member, 2018-present
- Board of Trustees, Corbett Preparatory School of IDS,
  Education Committee, 2016-present
  Secretary 2017- present
- NASA Florida Space Grant Consortium Advisory Board, 2015-present
- International Conference on Pervasive Technologies Related to Assistive Environments (PETRA 2015), Corfu, Greece, Program Committee, Workshop Chair

- USF-PAMA Conference, Program Committee, 2013-2015
- American Academy of Orthotists and Prosthetists (AAOP), Professional member: 2009-present; Standards & Protocols Committee (2009-10); Secondary Knowledge Committee (2012-present)
- American Society of Mechanical Engineers (ASME) – member: 2006- present
- Institute of Electrical and Electronics Engineers (IEEE) – member: 2006- present
  International Program Committee, IEEE ROBIO 2010-present
- Biomedical Engineering Society (BMES) – member: 2006- present
- Delta Kappa Gamma Society International, Mu State, Beta Theta Chapter, Key Women Educators Society
  Member 2007-present
  Vice President 2012-2014
  President 2015- 2016
- AcademicKeys Who's Who in Higher Education Engineering (WWHEE) - member
- Reviewer for:
  Proposals:
  Florida Space Grant Consortium Research Program
  National Science Foundation (NSF) Panels:
  I/UCRC, 2018
  Orthopedic Technologies SBIR/STTR, 2012, 2013, 2014
  NSF-NIH Smart and Connected Health, 2013
  Research to Aid Persons with Disabilities 2010
  NASA Experimental Program to Stimulate Competitive Research
  NASA Florida Space Grant Consortium, Florida Space Research Program
  NIH: Small Business: Musculoskeletal Rehabilitation Sciences
  VA RR&D's Scientific Merit Review Board for Career Development Program
  Journals:
  ASME Journal of Medical Devices
  Biomedical Signal Processing and Control
  Disability and Rehabilitation: Assistive Technology
  IEEE Engineering in Medicine and Biology
  IEEE Transactions on Haptics
  IEEE Transactions of Systems Man & Cybernetics
  IEEE International Conference on Robotics and Biomimetics (ROBIO)
  IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)
  Journal of NeuroEngineering and Rehabilitation
  Prosthetics and Orthotics International (POI)

PROFESSIONAL CERTIFICATION AND TRAINING

- CAREN (Computer Assisted Rehabilitation Environment) Advanced Operator Training, March 2014
- CAREN (Computer Assisted Rehabilitation Environment) Training, Nov.2013
- Vicon Nexus and Tracker software, T-series training Nov. 2012
- Cosmed K4 mobile metabolic system training, March 2007.
- Vicon Bodybuilder Training Course, Jan. 2006.

- Colorado Department of Higher Education, Division of Private Occupational Schools Private Occupational Credential, Oct 2002.
- LabVIEW Basics training, Oct 1997.

ADVISING

Doctoral Students

- Martori, A., Menychtas, D. (current), Major Professor
- Ashley Knight, "The Development of a Platform Interface with the Use of Virtual Reality to Enhance Upper-Extremity Prosthetic Training and Rehabilitation," Ph.D. in Biomedical Engineering, Dissertation, June 2017, Major Co-Professor.
- Wernke MM, Ph.D. in Biomedical Engineering, "Characterizing Prosthetic Socket Mechanics and Recommendations for a Smart Interface Design," Dec. 2013, Major Co-Professor.
- Lura DJ, Ph.D. in Mechanical Engineering, "The Creation of a Robotics Based Human Upper Body Model for Predictive Simulation of Prostheses Performance," May 2012, Major Co-Professor.

Masters Thesis Students

- Mott, B., Gatto A. K. Lostroscio (current), Major Professor
- Sullins, T, M.S. in Mechanical Engineering, "The Development of a Prosthetic Training Software for Upper Limb Amputees," June 2016, Co-Major Professor.
- Tudor, S, M.S. in Mechanical Engineering, "The Development of an Adaptive Driving Simulator", April 2015, Co-Major Professor
- Martori, A, M.S. in Mechanical Engineering, "A Wearable Motion Analysis System to Evaluate Gait Deviations," August 2013,Co-Major Professor.

Honors College Thesis Director

- Wieczorek, T "Analysis of Upper Limb Prosthetic Use in Hockey Shooting, " B.S. Mechanical Engineering, Honors College Thesis, May 2017.
- Hurtado, A, "Design of Affordable 3D Printed Transtibial Prosthesis," B.S. Mechanical Engineering, Honors College Thesis, April 2016.
- Lane, C, "The Future of 3D Printing: Additive Manufacturing in a Microgravity Environment," Honors Thesis in Mechanical Engineering, May 2015.
- Tudor, S, Honors thesis in Mechanical Engineering, "Laser Guided Device for the Blind," May 2014.
- Curham, K, Honors thesis in Mechanical Engineering, "Design of a Quasi-Passive Rehabilitative Exoskeleton for the Knee," May 2012.

Research Experience for Undergraduates (REU) Students

- K. Kearny, J. Gomez, , (current)
- A. Lopez, J. Simmons, N. Alfrey, G. Jourdenais, Wieczorek, T T Nolla, F Sinatra, J Palmowski, E Esinhart, M Concepcion, S Tudor, J Cathell

Thesis/Dissertation Committees

- Schlafly, M, MS in Mechanical Engineering, "Design and Testing of a Passive Prosthetic Ankle Foot Optimized to Mimic an Able-bodied Gait," August 2018.
- Ramakrishnan, T, PhD in Mechanical Engineering, "Rehabilitating Asymmetric Gait Using Asymmetry," Dec. 2017.

- Arvaneh, T, MS in Biomedical Engineering, "Morphometric Analysis of the Talus on the Cohort of Healthy and Arthritic Patient Population: *In-Vivo* 3D Computational Study," June 2017.
- Garcia-Acre, PhD in Industrial Engineering, "Strategies for Reducing Preventable Hospital Readmissions on Medicare Patients," May 2017.
- Aira, J, MS in Biomedical Engineering, "Morphometric and Morphologic Analysis of the Human Clavicle Fractures and Methods of Fixations, April 2016.
- Hatzitheodorou, Philip Andrew, MS in Mechanical Engineering, "An Experimental Study on Passive Dynamic Walking," June 2015.
- Liu, Y, PhD in Industrial Engineering, "Patient Populations, Clinical Associations, and System Efficiency in Healthcare Delivery System," June 2015.
- Puertas, M, PhD in Industrial Engineering, "Statistical and Prognostic Modeling of Clinical Outcomes with Complex Physiologic Data," March 2014.
- Masters, N, M.S. in Mechanical Engineering, "The Biomechanics of the Tendu in Closing to the Traditional Position, Plié and Relevé " Dec. 2013.
- Simoes, M, M.S. in Mechanical Engineering, "Feasibility of Wearable Sensors to Determine Gait Parameters," August 2011.
- John Capille, M.S. in Mechanical Engineering, "Kinematic and Experimental Evaluation of Commercial Wheelchair-Mounted Robotic Arms," May 2010.
- Lura DJ, "Modeling Upper Body Kinematics with a Transradial Prosthesis," Master's thesis University of South Florida, Dept. of Mech. Eng., May 2009.
- Freilich R, "Biomechanical Model of Transhumeral Prostheses," Master's thesis University of South Florida, Dept. of Chem. & Biomed. Eng., Dec. 2009.

OUTREACH

2014	The American School in Switzerland (TASIS), Lugano, Switzerland Invited guest lecturer, for various classes, 2nd – 12th grade
2008-present	STEM presentations, demonstrations and summer internship supervisor Tampa Preparatory School (Grades 6-12) Tampa, Florida Corbett Preparatory School (K-12) Tampa, Florida
2004-present	Engineering Expo, University of South Florida, Tampa, Florida.
2011-present	Girl Scout Engineering Camp and STEM meeting, USF coordinator
2002-2003	Volunteer, Denver Children's Hospital, Denver, Colorado.
1997-2000	Sponsor for "Shadow an Engineer Days," Dade County, Miami, Florida.