

Curriculum Vitae

Beom-Chan Lee, Ph.D.

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Academic Appointments

- | | |
|-----------------|---|
| 09/2014-present | Assistant Professor, Department of Health and Human Performance, University of Houston, Houston, TX |
| 05/2015-present | Researcher (without compensation), Michael E. DeBakey Veterans Affairs Medical Center, Houston, TX |
| 06/2013-08/2014 | Research Professor, Department of Health and Human Performance, University of Houston, Houston, TX |
| 01/2013-05/2013 | Research Investigator, Department of Mechanical Engineering, University of Michigan, Ann Arbor, MI |
| 01/2012-12/2012 | Postdoctoral Research Fellow, Department of Mechanical Engineering, University of Michigan, Ann Arbor, MI |

Education

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|-----------------|---|
| 09/2008-04/2012 | Ph.D., Mechanical Engineering, University of Michigan, Ann Arbor, MI
Dissertation: "Design and assessment of vibrotactile biofeedback and instructional systems for balance rehabilitation applications" |
| 03/2006-06/2008 | Ph.D. (all but dissertation), Mechatronics, Gwangju Institute of Science and Technology, Gwangju, Korea |
| 03/2004-02/2006 | M.S., Mechatronics, Gwangju Institute of Science and Technology, Gwangju, Korea
Thesis: "Development of K-Touch™ Haptic API (Application Programming Interface)" |
| 03/1998-02/2004 | B.S., Electrical and Computer Engineering, Kangwon National University, Chuncheon, Korea
Thesis: "Implementation of 3D Haptic Interface for Virtual Reality" |

Other Academic Experience

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| 09/2011-01/2012 | Graduate Student Instructor, Department of Mechanical Engineering, University of Michigan, Ann Arbor, MI |
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- 09/2008-08/2011 Research Assistant, Sensory Substitution and Augmentation Laboratory, Department of Mechanical Engineering, University of Michigan, Ann Arbor, MI
- 03/2004-06/2008 Research Assistant, Human Robotics Laboratory, Department of Mechatronics, Gwangju Institute of Science and Technology, Gwangju, Korea
- 03/2004-06/2008 Teaching Assistant, Department of Mechatronics, Gwangju Institute of Science and Technology, Gwangju, Korea
- 03/2002-02/2004 Research Assistant, Human Interface Laboratory, Department of Electrical and Computer Engineering, Kangwon National University, Chuncheon, Korea

Research Interests

Rehabilitation science and technology, biomechanics; mechatronics; robotics; biofeedback; haptics; pathological neuromuscular behavior; brain imaging and brain-machine interfaces; smartphone-based wearable balance/gait prostheses and technologies; fall detection and prevention

Research Impact as of March 2019

<i>h</i> -Index per Web of Science: 8	Total citations per Web of Science: 232
<i>h</i> -Index per Google Scholar: 12	Total citations per Google Scholar: 501
<i>i10</i> -Index per Google Scholar: 15	

Peer-reviewed Journal Articles

* Corresponding author

§ UH graduate student/post-doc first author supervised by Beom-Chan Lee

IF = Impact Factor, JR = Journal Ranking, Q = Quartile based on 2017 Journal Citation Reports by Thomson Reuters

Published Journal Articles

1. Stacey L. Gorniak, Fangmei Yoshimi Lu, **Beom-Chan Lee**, Paul J. Massman, and Jing Wang, “Cognitive impairment and postural control deficits in adults with Type 2 Diabetes”, *Diabetes/Metabolism Research and Reviews*, Vol. 35, No. 2, pp. e3089, 2019 (IF: 3.904; JR: 47/143 (Q2) in Endocrinology and Metabolism)
2. §Dongyual Yoo, Younsun Son, Dae-Hee Kim, Kap-Ho Seo, and ***Beom-Chan Lee**, “Technology-assisted ankle rehabilitation improves balance and gait performance in stroke survivors: A randomized controlled study with 1-month follow-up”, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, Vol. 26, No. 12, pp.

- 1-9, 2018 (IF: 3.972; JR: 3/65 (Q1) in Rehabilitation)
3. David R. Young, **Beom-Chan Lee**, and Charles S. Layne, “Comparison of martial artists and healthy individuals using treadmill-induced gait perturbation”, *Neurology and Neuroscience Reports*, Vol. 1, No. 2, pp. 1-4, 2018 (IF: N/A; JR: N/A)
 4. Charles S. Layne, **Beom-Chan Lee**, David R. Young, Daniel G. Glaze, and Bernhard Suter, “Temporal gait measures associated with overground and treadmill walking in Rett syndrome”, *Journal of Child Neurology*, Vol. 33, No. 10, pp. 667-674, 2018 (IF: 1.665; JR: 64/124 (Q3) in Pediatrics)
 5. §Alberto Fung, Eugene C. Lai, and ***Beom-Chan Lee**, “Usability and validation of the Smarter Balance System: An unsupervised dynamic balance exercises system for individuals with Parkinson’s disease”, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 2018, Vol. 26, No. 4, pp. 798-806, 2018 (IF: 3.972; JR: 3/65 (Q1) in Rehabilitation)
 6. ***Beom-Chan Lee**, Alberto Fung, and Timothy A. Thrasher, “The effects of coding schemes on vibrotactile biofeedback for dynamic balance training in Parkinson’s disease and healthy elderly individuals”, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, Vol. 26, No. 1, pp. 153-160, 2018 (IF: 3.972; JR: 3/65 (Q1) in Rehabilitation)
 7. Charles S. Layne, **Beom-Chan Lee**, David R. Young, Aryn Knight, Daniel G. Glaze, and Bernhard Suter, “Methodologies to objectively assess gait and postural control features in Rett syndrome – With a comment on specific challenges and how to address them”, *Rare Diseases and Orphan Drugs*, Vol. 4, No. 1, pp. 1-7, 2017 (IF: N/A; JR: N/A)
 8. ***Beom-Chan Lee**, Bernard J. Martin, Timothy A. Thrasher, and Charles S. Layne, “The effect of vibrotactile cuing on recovery strategies from a treadmill-induced trip”, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, Vol. 25, No. 3, pp. 235-243, 2017 (IF: 3.972; JR: 3/65 (Q1) in Rehabilitation)
 9. Hao Meng, Daniel P. O’Connor, **Beom-Chan Lee**, Charles S. Layne, and Stacey L. Gorniak, “Alterations in over-ground walking patterns in obese and overweight adults”, *Gait and Posture*, Vol. 53, pp. 145-150, 2017 (IF: 2.273; JR: 29/77 (Q2) in Orthopedics)
 10. Rakshatha Kabbaligere, **Beom-Chan Lee**, and Charles S. Layne, “Balancing sensory inputs: Sensory reweighting of ankle proprioception and vision during a bipedal posture task”, *Gait and Posture*, Vol. 52, pp. 244-250, 2017 (IF: 2.273; JR: 29/77 (Q2) in Orthopedics)
 11. **Beom-Chan Lee**, Timothy A. Thrasher, Charles S. Layne, and Bernard J. Martin, “Vibrotactile cuing revisited to reveal a possible challenge to sensorimotor adaptation”, *Experimental Brain Research*, Vol. 234, No. 12, pp. 3523-3530, 2016 (IF: 1.806; JR: 211/261 (Q4) in Neuroscience)
 12. Recep Ali Ozdemir, Jose L. Contreras-Vidal, **Beom-Chan Lee**, and William H. Paloski, “Cortical activity modulations underlying age related performance differences during posture-cognition dual tasking conditions”, *Experimental Brain Research*, Vol. 234, No. 11, pp. 3321-3334, 2016 (IF: 1.806; JR: 211/261 (Q4) in Neuroscience)
 13. David R. Temple, **Beom-Chan Lee**, and Charles S. Layne, “Effects of tibialis anterior vibration on postural control when exposed to support surface translations”, *Somatosensory and Motor Research*, Vol. 33, No. 1, pp. 42-48, 2016 (IF: 1.185; JR: 3/65 (Q1) in Rehabilitation)

238/261 (Q4) in Neuroscience)

14. Marius Dettmer, Amir Pourmoghaddam, **Beom-Chan Lee**, and Charles S. Layne, “Do aging and tactile noise stimulation affect responses to support surface translations in healthy adults?”, *Current Gerontology and Geriatrics Research*, Vol. 2016, No. 2941964, 9 pages, 2016 (IF: N/A; JR: N/A)
15. Marius Dettmer, Amir Pourmoghaddam, **Beom-Chan Lee**, and Charles S. Layne, “Associations between tactile sensory threshold and postural performance and effects of healthy aging and subthreshold vibrotactile stimulation on postural outcomes in a simple dual task”, *Current Gerontology and Geriatrics Research*, Vol. 2016, No. 9797369, 11 pages, 2016 (IF: N/A; JR: N/A)
16. Hao Meng, Daniel P. O’Connor, **Beom-Chan Lee**, Charles S. Layne, and Stacey L. Gorniak, “Effects of adiposity on postural control and cognition”, *Gait and Posture*, Vol. 43, pp. 31-37, 2016 (IF: 2.273; JR: 29/77 (Q2) in Orthopedics)
17. ***Beom-Chan Lee**, Timothy A. Thrasher, Stanley P. Fisher, and Charles S. Layne, “The effects of different sensory augmentation on weight-shifting balance exercises in Parkinson’s disease and healthy elderly people: A proof-of-concept study”, *Journal of NeuroEngineering and Rehabilitation*, Vol. 12, No. 75, 2015 (IF: 3.865; JR: 4/65 (Q1) in Rehabilitation)
18. Marius Dettmer, Amir Pourmoghaddam, **Beom-Chan Lee**, and Charles S. Layne, “Effects of aging and tactile stochastic resonance stimulation on postural performance and postural control of younger and older adults in a sensory conflict task”, *Somatosensory and Motor Research*, Vol. 32, No. 2, pp. 128-135, 2015 (IF: 1.185; JR: 238/261 (Q4) in Neuroscience)
19. Bernard J. Martin, **Beom-Chan Lee**, and Kathleen H. Sienko, “A cutaneous positioning system”, *Experimental Brain Research*, Vol. 233, No. 4, pp. 1237-1245, 2015 (IF: 1.806; JR: 211/261 (Q4) in Neuroscience)
20. **Beom-Chan Lee**, Bernard J. Martin, Allison Ho, and Kathleen H. Sienko, “Postural reorganization induced by torso cutaneous covibration”, *Journal of Neuroscience*, Vol. 33, No. 18, pp. 7870-7876, 2013 (IF: 5.971; JR: 30/261 (Q1) in Neuroscience)
21. **Beom-Chan Lee**, Bernard J. Martin, and Kathleen H. Sienko, “The effects of actuator selection on non-volitional postural responses to torso-based vibrotactile stimulation”, *Journal of NeuroEngineering and Rehabilitation*, Vol. 10, No. 21, 2013 (IF: 3.865; JR: 4/65 (Q1) in Rehabilitation)
22. **Beom-Chan Lee**, Bernard J. Martin, and Kathleen H. Sienko, “Directional postural responses induced by vibrotactile stimulations applied to the torso”, *Experimental Brain Research*, Vol. 222, No. 4, pp. 471-482, 2012 (IF: 1.806; JR: 211/261 (Q4) in Neuroscience)
23. **Beom-Chan Lee**, Jeonghee Kim, Shu Chen, and Kathleen H. Sienko, “Cell phone based balance trainer”, *Journal of NeuroEngineering and Rehabilitation*, Vol. 9, No. 10, 2012 (IF: 3.865; JR: 4/65 (Q1) in Rehabilitation)
24. **Beom-Chan Lee**, Shu Chen, and Kathleen H. Sienko, “A wearable device for real-time motion error detection and vibrotactile instructional cuing”, *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, Vol. 19, No. 4, pp. 374-381, 2011 (IF: 3.972; JR: 3/65 (Q1) in Rehabilitation)
25. Sun-Uk Hwang, **Beom-Chan Lee**, Jaha Ryu, Kwan Heng Lee, and Yong-Gu Lee, “Adaptive haptic rendering for time-varying haptic and video frame rates in multi-

- modal interactions”, *Computer Animation and Virtual World*, Vol. 21, No. 1, pp. 25-38, 2010 (IF: 0.697; JR: 91/104 (Q4) in Computer Science)
26. Jong-Phil Kim, **Beom-Chan Lee**, Hyungon Kim, Jaeha Kim, and Jeha Ryu, “Accurate and Efficient CPU/GPUBased 3-DOF Haptic Rendering of Complex Static Virtual Environments”, *Presence-Teleoperators and Virtual Environments*, Vol. 18, No. 5, pp. 340-360, 2009 (IF: 0.426; JR: 98/104 (Q4) in Computer Science)
 27. Jong-Phil Kim, **Beom-Chan Lee**, and Jeha Ryu, “Real-time Haptic Visualization of Printed Materials”, *Journal of Computational Information System*, Vol. 2, pp. 81-87, 2006 (IF: N/A; JR: N/A)
 28. Jong-Phil Kim, Jeung-Chul Park, **Beom-Chan Lee**, Kwan H. Lee, Jeha Ryu, “Digital Buddhist Image Creation by Haptic Deformation”, *Edutainment 2006*, pp. 989-998, 2006 (IF: N/A; JR: N/A)

Published Journal Abstracts

1. **Beom-Chan Lee**, Kelli Bechly, and Kathleen H. Sienko, “Cell phone based vibrotactile feedback system for home-based vestibular rehabilitation balance training”, *Journal of Vestibular Research*, Vol. 20, No. 3-4, pp. 234-235, 2010 (IF: 2.865; JR: 4/41 (Q1) in Otorhinolaryngology)
2. **Beom-Chan Lee** and Kathleen H. Sienko, “Wireless Mimic Device for Rehabilitation and Training Applications”, *Journal of Medical Devices*, Vol. 3, No. 2, 027526, 2009 (IF: 0.412; JR: 77/78 (Q4) in Biomedical Engineering)
3. Vivek Vishwas Vichare, **Beom-Chan Lee**, Wendy Carender, Annamarie Asher, and Kathleen H. Sienko, “Vibrotactile Balance Rehabilitation Gait Assist Device”, *Journal of Medical Devices*, Vol. 3, No. 2, 027509, 2009 (IF: 0.412; JR: 77/78 (Q4) in Biomedical Engineering)

Funding since 2015

Active Research Support

1. **Beom-Chan Lee (PI)** and Yoonjung Park, “Developing and assessing wearable technologies to predict and prevent falls”, ICT R&D program of Ministry of Science, ICT and Future Planning (MSIP)/Institute for Information & Communications Technology Promotion (IITP), Korea Institute of Robot and Convergence (KIRO), Total: \$443,875, June 2017-December 2020.

Completed Research Support

1. **Beom-Chan Lee (PI)**, “Validation of smartphone-based sensory augmentation technology for home-based balance training of people with Parkinson’s disease”, Research Grants, American Parkinson’s Disease Association (APDA), Total: \$50,000, September 2017-August 2018.
2. **Beom-Chan Lee (PI)**, “A novel ankle rehabilitation system for facilitating recovery of stroke patients”, Research Progress Grant, College of Liberal Arts and Social Science, University of Houston, Total: \$4,000, March 2017-February 2018.
3. **Beom-Chan Lee (PI)**, “Development of accurate and reliable algorithms for evaluating

- Parkinsonian tremor”, Veterans Administration (I21) of National Institutes of Health (NIH), Michael E. DeBakey VA Medical Center, Total: \$16,717.62, June 2016-September 2017.
4. **Beom-Chan Lee (PI)**, “Effect of resistance exercise on tremor and hand dexterity in Parkinson’s disease”, Veterans Administration (I21) of National Institutes of Health (NIH), Michael E. DeBakey VA Medical Center, Total: \$17,476.73, March 2016-September 2017.
 5. **Beom-Chan Lee (PI)**, “The effects of exercise training combined with assistive technologies on spasticity, balance, and gait in individuals with post-stroke hemiparesis”, Research Grants, Korea Institute of Robot and Convergence (KIRO), Total: \$25,800.50, September 2016-August 2017.
 6. **Beom-Chan Lee (PI)**, “Validation of smartphone-based sensory augmentation technology for home-based balance training of people with Parkinson’s disease”, Research Grants, American Parkinson’s Disease Association (APDA), Total: \$50,000, September 2016-August 2017.
 7. **Beom-Chan Lee (PI)**, “The effects of smartphone-based biofeedback for home-based balance training in Parkinson’s disease”, Research Progress Grant, College of Liberal Arts and Social Science, University of Houston, Total: \$3,929, March 2016-February 2017.
 8. **Beom-Chan Lee (Co-I)**, Michael Cottingham (PI), and Don Lee, “Development of measures for classification system for athletes with disabilities”, Research Progress Grant, College of Liberal Arts and Social Science, University of Houston, Total: \$11,795, March 2016-February 2017

Magazine and Conference Publications

* Corresponding author

§ UH graduate student/post-doc first author supervised by Beom-Chan Lee

‡ UH graduate student first author supervised by Beom-Chan Lee as dissertation co-chair

Magazine

1. **Beom-Chan Lee**, Jong-Phil Kim, and Jaha Ryu, “K-Touch Haptic API for Various Datasets”, *Graphics Live*, pp. 82-89, September, 2006

Peer-reviewed Conference Proceedings

1. §Junmo An, Dongyual Yoo, and ***Beom-Chan Lee**, “Electrocortical activity changes in response to unpredictable trip perturbations induced by a split-belt treadmill”, *41th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, 2019 (in review)
2. §Alberto Fung, Eugene C. Lai, and ***Beom-Chan Lee**, “A new smart balance rehabilitation system technology platform: Development and preliminary assessment of the Smarter Balance System for home-based balance rehabilitation for individuals with Parkinson’s disease”, *40th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, pp. 1534-1537, July 18-21, 2018

3. ***Beom-Chan Lee**, Dae-Hee Kim, Younsun Son, Kap-Ho Seo, Dongyual Yoo, Sung Ho Park, and Alberto Fung, "Development and assessment of a novel ankle rehabilitation system for stroke survivors", *39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, pp. 3773-3776, July 11-15, 2017
4. ***Beom-Chan Lee**, Bernard J. Martin, Timothy A. Thrasher, and Charles S. Layne, "A new fall-inducing technology platform: development and assessment of a programmable split-belt treadmill", *39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, pp. 3777-3780, July 11-15, 2017
5. Muhammad Raheel Afzal, Sanghun Pyo, Min-Kyun Oh, Young Sook Park, **Beom-Chan Lee**, and Jungwon Yoon, "Haptic based gait rehabilitation system for stroke patients", *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, pp. 3198-3203, October 9-14, 2016
6. ***Beom-Chan Lee** and Alberto Fung, "Smartphone-based sensory augmentation technology for home-based balance training", *15th International Conference on Control, Automation and Systems (ICCAS)*, pp. 947-952, October 13-16, 2015
7. ‡Stefan Madansingh, Timothy A. Thrasher, Charles S. Layne, and ***Beom-Chan Lee**, "Smartphone based fall detection system", *15th International Conference on Control, Automation and Systems (ICCAS)*, pp. 370-374, October 13-16, 2015
8. David R. Temple, **Beom-Chan Lee**, and Charles S. Layne, "Effects of tibialis anterior muscle vibration on quiet stance", *IEEE Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems (HAPTICS)*, pp. 523-528, February 23-26, 2014
9. **Beom-Chan Lee**, Allison Ho, Bernard J. Martin, and Kathleen H. Sienko, "Effects of co-vibrotactile stimulations around the torso on non-volitional postural responses", *34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, pp. 6149-6152, August 28-September 1, 2012
10. **Beom-Chan Lee**, Bernard J. Martin, and Kathleen H. Sienko, "Comparison of non-volitional postural responses induced by two types of torso based vibrotactile stimulations", *IEEE Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems (HAPTICS)*, pp. 195-198, March 4-7, 2012
11. **Beom-Chan Lee** and Kathleen H. Sienko, "Effects of attractive versus. repulsive vibrotactile instructional cues on motion replication tasks", *33rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBS)*, pp. 3533-3536, August 30-September 3, 2011
12. **Beom-Chan Lee** and Kathleen H. Sienko, "Balance training via multimodal biofeedback", *International Conference on Fall Prevention and Protection (ICFPP)*, pp. 77-80, May 19-20, 2010
13. **Beom-Chan Lee**, Sun-Uk Hwang, Hyungon Kim, Yong-Gu Lee, and Jeha Ryu, "Smooth haptic interaction methods in augmented reality haptics", *International Workshop on Ubiquitous Virtual Reality (IWUVR)*, pp. 44-47, July 8-11, 2009
14. **Beom-Chan Lee**, Hyeslin Park, Junhun Lee, and Jeha Ryu, "Tactile visualization with mobile AR on handheld device," *International Workshop on Haptic and Audio Interaction Design (HAID)*, pp. 11-21, November 29-30, 2007
15. Yongwon Seo, **Beom-Chan Lee**, Yeongmi Kim, Jong-Phil Kim, and Jeha Ryu, "K-

- HapticModeler™: A Haptic Modeling Scope and Basic Framework”, *IEEE International Workshop on Haptic Audio Visual Environments and Their Applications (HAVE)*, pp. 136-141, October 12-14, 2007
16. Hyeshin Park, Yo-An Lim, Aslam Pervez, **Beom-Chan Lee**, Sang-Goog Lee, and Jeha Ryu, “Teleoperation of a multi-purpose robot over the internet using augmented reality”, *7th International Conference on Control, Automation and Systems (ICCAS)*, pp. 2456-2461, October 17-20, 2007
 17. Duck-Bong Kim, **Beom-Chan Lee**, Hyeshin Park, Jong-Phil Kim, Jeha Ryu, Kwang Hee Ko, Renato Pajarla, Kwan Heng Lee, “Point-based surfaces from unorganized points for multi-modal interaction”, *Asia-Pacific Workshop on Visual Information Processing (VIP)*, pp. 157-160, November 7-9, 2006
 18. **Beom-Chan Lee**, Jong-Phil Kim, Jongeun Cha, Jeha Ryu, “Development of K-Touch™ haptic API for various datasets”, *EuroHaptics 2006*, pp. 537-541, July 3-6, 2006
 19. Youngho Lee, Sejin Oh, **Beom-Chan Lee**, Jeung-Chul Park, Youngmin Park, Yoo Rhee Oh, Seokhee Lee, Han Oh, Jeha Ryu, Kwan H. Lee, Hong Kook Kim, Yong-Gu Lee, JongWon Kim, Yo-Sung Ho, and Woontack Woo, “Responsive multimedia system for context-based storytelling”, *Pacific-Rim Conference on Multimedia (PCM) Special Section, Part I*, pp. 365-372, November 13-16, 2005
 20. Jongeun Cha, **Beom-Chan Lee**, Seungjun Kim, and Jeha Ryu, “Smooth haptic interaction in broadcasted augmented reality”, *10th IFIP TC13 International Conference on Human-Computer Interaction (INTERACT)*, pp. 1046-1049, September 12-16, 2005
 21. **Beom-Chan Lee**, Junhun Lee, Jongeun Cha and Jeha Ryu, “Immersive live sports experience with vibrotactile sensation”, *10th IFIP TC13 International Conference on Human-Computer Interaction (INTERACT)*, pp. 1042-1045, September 12-16, 2005
 22. Jong-Phil Kim, **Beom-Chan Lee**, and Jeha Ryu, “Haptic rendering with six virtual cameras”, *11th International Conference on Human-Computer Interaction (HCI)*, pp. 467-472, July 22-27, 2005
 23. Oktay Yarimaga, Junhun Lee, **Beom-Chan Lee**, and Jeha Ryu, “Tactile sensation display by electrotactile interface”, *5th International Conference on Control, Automation and Systems (ICCAS)*, pp.145-150, June 2-5, 2005

Conference Abstracts

1. Charles S. Layne, Rakshatha Kabbaligere, and **Beom-Chan Lee**, “Gravitational unloading delays adaptation to support surface translations”, *48th Annual Meeting of the Society for Neuroscience*, November 3-7, 2018
2. Rakshatha Kabbaligere, **Beom-Chan Lee**, and Charles S. Layne, “Kinematic and neuromuscular adaptation to unloaded walking”, *48th Annual Meeting of the Society for Neuroscience*, November 3-7, 2018
3. Rakshatha Kabbaligere, **Beom-Chan Lee**, and Charles S. Layne, “Interaction between visual flow and tendon vibration during postural control”, *47th Annual Meeting of the Society for Neuroscience*, November 11-15, 2017
4. §Dongyual Yoo and ***Beom-Chan Lee**, “Long-term ankle stretching exercises with a robotic system for individuals after stroke”, *KSEA-KABMS-KOES West Gulf Coast Conference*, November 4, 2017

5. Bernhard Suter, David R. Young, **Beom-Chan Lee**, Charles S. Layne, “Temporal gait measures associated with overground versus treadmill walking in Rett syndrome”, *National Organization for Rare Diseases (NORD) annual meeting*, October 16-17, 2017
6. §Alberto Fung, Eugene C. Lai, and ***Beom-Chan Lee**, “Smarter Balance System: Smartphone-based biofeedback technology for clinical and/or home-based balance rehabilitation”, *International Society for Posture and Gait Research (ISPGR) World Congress*, June 25-29, 2017
7. ‡Stefan Madansingh, **Beom-Chan Lee**, and Charles S. Layne, “Sensorimotor adaptation is generalized within individuals among manual and locomotor tasks”, *NASA Human Research Program Investigators’ Workshop (HRP IWS)*, January 23-26, 2017
8. §Younsun Son, Dae-Hee Kim, Kap-Ho Seo, Sung Ho Park, Alberto Fung, Dongyual Yoo, and ***Beom-Chan Lee**, “A novel assistive technology for ankle rehabilitation training of stroke survivors”, *Korean-American Scientists and Engineers Association West Gulf Coast Regional Conference*, November 19, 2016
9. Amber M. Chelette, **Beom-Chan Lee**, Timothy A. Thrasher, Rakshatha Kabbaligere, and Charles S. Layne, “Interaction of attention, instructions, and proprioception in a joint matching and N-Back task”, *46th Annual Meeting of the Society for Neuroscience*, November 12-16, 2016
10. Rakshatha Kabbaligere, Faisal Karmali, **Beom-Chan Lee**, and Charles S. Layne, “Effect of stochastic mastoid vibration on perception of vestibular recognition of rotary motion”, *46th Annual Meeting of the Society for Neuroscience*, November 12-16, 2016
11. Charles S. Layne, Rakshatha Kabbaligere, and **Beom-Chan Lee**, “Balancing sensory inputs: sensory reweighting of vision and ankle proprioception during a bipedal posture task”, *46th Annual Meeting of the Society for Neuroscience*, November 12-16, 2016
12. Bernard Suter, David Young, **Beom-Chan Lee**, Daniel G. Glaze, and Charles S. Layne, “Double support times during treadmill walking are associated with MECP2 mutation type in Rett syndrome”, *Conference on Clinical Research for Rare Diseases (CCRRD)*, November 3, 2016
13. Monthaporn S. Bryant, Craig D. Workman, Hao Meng, **Beom-Chan Lee**, Fariha Jamal, George R. Jackson, and Michele K. York, “Multidirectional treadmill training in de novo patients with Parkinson’s disease: gait, balance and kinematics changes”, *4th World Parkinson Congress*, September 20-23, 2016
14. Bernard J. Martin, Timothy A. Thrasher, Charles S. Layne, and ***Beom-Chan Lee**, “A possible challenge to sensorimotor adaptation”, *45th Annual Meeting of the Society for Neuroscience (SfN)*, October 17-21, 2015
15. Stacey L. Gorniak, **Beom-Chan Lee**, and Jing Wang, “Cognitive interference effects during manual force production in adults with Type II Diabetes”, *45th Annual Meeting of the Society for Neuroscience (SfN)*, October 17-21, 2015
16. ***Beom-Chan Lee**, Stanley P. Fisher, Charles S. Layne, and Timothy A. Thrasher, “Assessment of guidance modality on weight-shifting balance exercises in individuals with Parkinson’s disease”, *International Society for Posture and Gait Research (ISPGR) World Congress*, June 29-July 2, 2015
17. ‡Stefan Madansingh, Timothy A. Thrasher, Charles S. Layne, and ***Beom-Chan Lee**, “Real-time smartphone based fall detection platform for at-risk populations”,

International Society for Posture and Gait Research (ISPGR) World Congress, June 29-July 2, 2015

18. ***Beom-Chan Lee**, Timothy A. Thrasher, and Charles S. Layne, “The effects of vibrotactile cuing on recovery performance from treadmill-induced trip in healthy young adults”, *International Society for Posture and Gait Research (ISPGR) World Congress, June 29-July 2, 2015*
19. ***Beom-Chan Lee**, Stefan Madansingh, Timothy A. Thrasher, and Charles S. Layne, “The effects of vibrotactile cuing on recovery kinetics after treadmill-induced trip in healthy young adults”, *44th Annual Meeting of the Society for Neuroscience (SfN)*, November 15-19, 2014
20. Charles S. Layne, David R. Temple, and **Beom-Chan Lee**, “Effects of tibialis anterior vibration on anterior-posterior center of pressure while exposed to various forward translations”, *44th Annual Meeting of the Society for Neuroscience (SfN)*, November 15-19, 2014
21. Hao Meng, **Beom-Chan Lee**, Charles S. Layne, and Stacey L. Gorniak, “Effects of adiposity on postural stability in overweight and obese adults”, *44th Annual Meeting of the Society for Neuroscience (SfN)*, November 15-19, 2014
22. David R. Temple, **Beom-Chan Lee**, and Charles S. Layne, “Effects of tibialis anterior vibration on anterior-posterior center of pressure while exposed to various backward translations”, *44th Annual Meeting of the Society for Neuroscience (SfN)*, November 15-19, 2014
23. ***Beom-Chan Lee**, “Towards ubiquitous balance aids through sensory augmentation”, *US-Korea Conference*, August 6-9, 2014.
24. **Beom-Chan Lee**, Allison Ho, Bernard J. Martin, and Kathleen H. Sienko, “Postural reorganization in response to torso-based co-vibrotactile stimulation”, *42nd Annual Meeting of the Society for Neuroscience (SfN)*, October 13-17, 2012
25. **Beom-Chan Lee**, Jeonghee Kim, Wendy Carender, and Kathleen H. Sienko, “Cell phone based sensory augmentation for balance training”, *Annual Meeting of the Gait and Clinical Movement Analysis Society (GCMAS)*, May 9-12, 2012
26. **Beom-Chan Lee**, Bernard J. Martin, and Kathleen H. Sienko, “Postural post-effects in response to torso-based vibrotactile stimulation”, *39th Annual Meeting of the Society for Neuroscience (SfN)*, October 17-21, 2009
27. **Beom-Chan Lee**, Duck-Bong Kim, In-Yeop Chang, Hyeshin Park, Kwang Hee Ko, Penato Pajarola, Kwan H. Lee, and Jeha Ryu, “Meshless visual and haptic interaction from a real-time depth image”, *44th International Conference and Exhibition on Computer Graphics and Interactive Techniques (ACM SIGGRAPH)*, August 5-9, 2007
28. **Beom-Chan Lee**, Jong-Phil Kim, Hyeshin Park, and Jeha Ryu, “Shape and material property modeling with haptic interaction”, *44th International Conference and Exhibition on Computer Graphics and Interactive Techniques (ACM SIGGRAPH)*, August 5-9, 2007
29. **Beom-Chan Lee**, Jong-Phil Kim, Jeung-Chul Park, Kwan H. Lee, and Jeha Ryu, “Haptic deformation using graphics hardware and kd-trees”, *43rd International Conference and Exhibition on Computer Graphics and Interactive Techniques (ACM SIGGRAPH)*, July 30-August 3, 2006
30. **Beom-Chan Lee**, Jong-Phil Kim, Jongeun Cha, and Jeha Ryu, “K-Touch™ haptic API for various datasets”, *43rd International Conference and Exhibition on Computer*

- Graphics and Interactive Techniques (ACM SIGGRAPH)*, July 30-August 3, 2006
31. Jong-Phil Kim, **Beom-Chan Lee**, and Jeha Ryu, “A hapitc rendering for hybrid environments”, *42nd International Conference and Exhibition on Computer Graphics and Interactive Techniques (ACM SIGGRAPH)*, July 31-August 4, 2005

Media Coverage

1. University of Houston’s Fall 2018 Magazine, “Walking the walk”, December 2018.
<https://ssl.uh.edu/magazine/2018-fall/health-science/walking-the-walk.php>
2. American Parkinson Disease Association’s Spring 2018 Newsletter, “New smartphone-based system could help people with Parkinson’s disease (PD)”, April 2018.
<https://d2icp22po6iej.cloudfront.net/wp-content/uploads/2018/04/APDA-1804-FY18-NEWSLETTER-no-spreads.pdf>
3. Digital Trends, “Sensor-packed smart belt could help Parkinson’s patients stay on their feet”, January 17, 2018.
<https://www.digitaltrends.com/cool-tech/wearable-device-parkinsons-falls/>
4. CliniCrowd, “Smart belt helps Parkinson’s patients with balance”, August 13, 2017.
<https://clinicrowd.info/smart-belt-helps-parkinsons-patients-balance/>
5. Rehab Management, “Wearable balance system aims to help lessen fall risk among Parkinson’s patients”, August 7, 2017.
<http://www.rehabpub.com/2017/08/wearable-balance-system-aims-help-lesser-fall-risk-among-parkinsons-patients/>
6. Headline Health, “Wearable balance system aims to lessen risk of falling”, August 6, 2017.
<https://headlinehealth.com/biofeedback-technology-helping-improve-balance-parkinsons-patients/>
7. Medgadget – Medical Technology News, “Biofeedback system for Parkinson’s rehab”, August 4, 2017.
<https://www.medgadget.com/2017/08/biofeedback-system-parkinsons-rehab.html>
8. CNET, “Smart belt helps Parkinson's patients with balance”, August 2, 2017.
<https://www.cnet.com/news/parkinsons-elderly-falls-smarter-balance-system/>
9. Health and Wellbeing News, “This sensor-packed smart belt could keep Parkinson's patients from falling”, August 2, 2017.
<https://www.wearable.com/health-and-wellbeing/smarter-balance-system-parkinsons-belt-4955>
10. Consumer Technology Association, “This smart belt and app could help people with Parkinson’s keep their balance”, August 2, 2017.
<https://www.cta.tech/News/Blog/Articles/2017/August/This-Smart-Belt-and-App-Could-Help-People-with-Par.aspx>
11. BioSpace, “Biofeedback technology helping improve balance in Parkinson’s patients, University of Houston study”, August 1, 2017.
<https://www.biospace.com/article/around-the-web/biofeedback-technology-helping-improve-balance-in-parkinson-s-patients-university-of-houston-study-/>
12. AI in Healthcare – Innovation to Transform Healthcare, “Wearable biofeedback system improves balance in Parkinson’s patients”, July 31, 2017.

- <https://www.aain.healthcare/topics/connected-care/wearable-biofeedback-system-improves-balance-parkinsons-patients>
13. ScienceDaily, “Wearable balance system aims to lessen risk of falling”, July 31, 2017.
<https://www.sciencedaily.com/releases/2017/07/170731164013.htm>
 14. EurekAlert, “Biofeedback technology helping improve balance in Parkinson’s patients: Wearable balance system developed at UH aims to lessen risk of falling”, July 31, 2017.
https://www.eurekalert.org/pub_releases/2017-07/uoh-bth073117.php
 15. Medical Design Outsourcing Device Technology Magazine, “Wearable device gives real-time posture feedback to Parkinson’s patients”, July 25, 2017.
<https://www.medicaldesignandoutsourcing.com/wearable-device-feedback-parkinsons-patients/>
 16. Parkinson’s News Today, “Houston researchers develop wearable biofeedback system to improve balance in Parkinson’s patients”, July 17, 2017.
<https://parkinsonsnewstoday.com/2017/07/17/parkinsons-disease-balance-problems-targeted-by-new-wearable-biofeedback-technology/>
 17. University of Houston’s News and Events, “Biofeedback technology helping improve balance in Parkinson’s patients”, July 10, 2017
<https://ssl.uh.edu/news-events/stories/2017/June/06302017ParkinsonsBalance.php>
 18. Houston Public Media, “UH Moment: Parkinson’s disease balancing app”, June 25, 2017
<https://www.houstonpublicmedia.org/articles/shows/uh-moment/2017/06/25/206217/uh-moment-parkinsons-disease-balancing-app/>

Honors and Awards

1. Provost’s travel fund award, University of Houston, May 2018
2. GenDepot poster award, KSEA-KABMS-KOES West Gulf Coast Conference, November 2017 (graduate student first author)
3. Most distinguished alumni award, Gwangju Institute of Science and Technology, November 2017
4. Dr. David Watson Graduate Student Poster Award, NASA Human Research Program Investigators’ Workshop, February 2017 (graduate student first author)
5. GenDepot poster award, Korean-American Scientists and Engineers Association West Gulf Coast Regional Conference, November 2016 (postdoctoral fellow first author)
6. Provost’s travel fund award, University of Houston, October 2015
7. Provost’s travel fund award, University of Houston, December 2014
8. Best poster candidate, IEEE Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems, February 2014
9. Best paper candidate, IEEE Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems, March 2012
10. Best paper award, KHCI conference, February 2006
11. Scholarship student, S. Korea Research Foundation, 2004-2008
12. Best graduation project award, Kangwon National University, November 2003
13. Scholarship student, Brain Korea 21, 2001-2003

Patents

£ Lead inventor

1. **£Beom-Chan Lee**, Jeha Ryu, Junhun Lee, Yeongmi Kim, Jeha Kim, Hyungon Kim, Sunyoung Kim, and Sungjun Kim, “Actual Feeling Book System for Multimodal Immersive Interaction and Method Therefor”, Registration number: 10-1554589-00-00, September 15, 2015, Korea
2. Jeha Ryu, **£Beom-Chan Lee**, Sun-Uk Hwang, Hyeshin Park, and Yong-Gu Lee, “Method and System for Haptic Interaction in Augmented Reality”, Registration number: US8243099B2, August 14, 2012, USA, and Registration number: JP4977725B2, July 18, 2012, Japan
3. **£Beom-Chan Lee**, Sun-Uk Hwang, Hyeshin Park, Yong-Gu Lee, and Jeha Ryu, “Stable and Smooth Haptic Interaction Method and System in Augmented Reality”, Registration number: 10-0927009-00-00, November 9, 2009, Korea
4. **£Jong-Phil Kim**, Jeha Ryu, **Beom-Chan Lee**, “Haptic Rendering and Device by Using Local Occupancy Map Instance”, Registration number: 10-0787952-00-00, September 17, 2007, Korea
5. Jeha Ryu, **£Changhoon Seo**, Bongchul Kang, and **Beom-Chan Lee**, “Display and Methodology of CallerID through Tacile Haptic Interface”, Application number: PCT/KR2006/000618, February 22, 2007, Korea (pending)
6. Jeha Ryu, **£Changhoon Seo**, Bongchul Kang, and **Beom-Chan Lee**, “Display and Methodology of CallerID through Tacile Haptic Interface”, Registration number: 10-0672078-00-00, January 15, 2007, Korea
7. **£Beom-Chan Lee**, Jong-Phil Kim, and Jeha Ryu, “Kinesthetic/Tactile Haptic Rendering Software Development Toolkit (SDK)”, Registration number: 2005-01-169-006517, December 13, 2005, Korea
8. **£Jongeun Cha**, **Beom-Chan Lee**, Yeongmi Kim, Yongwon Seo, and Jeha Ryu, “Haptic Modeler by using Haptic User Interface (HUI)”, Registration number: 2005-01-169-006516, December 13, 2005, Korea
9. **£Jongeun Cha**, Jong-Phil Kim, **Beom-Chan Lee**, Yeongmi Kim, Yongwon Seo, and Jeha Ryu, “Tactile User Interface Editor”, Registration number” 2005-01-169-006515, December 13, 2005, Korea
10. **£Jong-Phil Kim**, **Beom-Chan Lee**, and Jeha Ryu, “Haptic Rendering Program”, Registration number: 2005-01-169-003286, June 10, 2005, Korea

Invited Presentations

1. “Towards smarter technology for balance and gait rehabilitation”, Gwangju Institute of Science and Technology Alumni Conference, November 3, 2017
2. “Learning and relearning stable balance and locomotion with assistive technology”, Rehabilitation Service Robot R&BD Support Cluster, Korea Institute of Robot and Convergence, July 11, 2017
3. “Wearable biofeedback technologies for balance rehabilitation”, Korea Institute of Robot and Convergence, October 13, 2016
4. “Technology-assisted motor learning in human performance”, College of Health

- Sciences, Ewha Womans University, July 15, 2015
5. “Vibrotactile biofeedback technologies to improve balance performance”, Division of Nursing Science, Ewha Womans University, July 15, 2015
 6. “Vibrotactile biofeedback technology for balance and gait rehabilitation”, School of Mechanical Engineering, Gyeongsang National University, July 14, 2015
 7. “Adaptation versus cuing-based recovery performance from a simulated trip”, School of Mechatronics, Gwangju Institute of Science and Technology, July 13, 2015
 8. “Smartphone based biofeedback technology for improving biomechanics of balance and posture”, 28th International University Sports Federation Conference, July 12, 2015
 9. “Vibrotactile biofeedback technologies to improve balance performance”, Department of Mechanical Engineering, Korea Advanced Institute of Science and Technology, July 10, 2015
 10. “The effect of vibrotactile cuing on recovery strategies from a treadmill-induced trip”, Pittsburgh Claude D. Pepper Older Americans Independence Center and Department of Bioengineering, University of Pittsburgh, April 28, 2015
 11. “Sensory augmentation for balance and gait rehabilitation”, School of Mechatronics, Gwangju Institute of Science and Technology, August 1, 2014
 12. “Wearable sensors and systems in healthcare”, Korea Automotive Technology Institute, July 29, 2014
 13. “Towards ubiquitous balance aids through sensory augmentation”, Department of Computer Engineering, Kyung Hee University, July 25, 2014
 14. “Wearable balance aid through sensory biofeedback and cutaneous contribution to posture”, Korea Institute of Industrial Technology, July 24, 2014

Exhibitions and Demonstrations

1. “Haptic deformation and material property modeling system”, 16th Symposium on Haptic Interfaces for Virtual Environment and Teleoperator Systems, Reno, USA, March 13-14, 2008
2. “Digilog Book”, iDAT (Interactive Design Art and Technology), Singapore Science Center, Singapore, December 7-10, 2008
3. “Multimodal Haptic Interactions”, Next Generation PC Fair, COEX, Seoul, Korea, November 28-December 1, 2007
4. “Interactive Haptic Systems for Medical, Education, and Entertainment Purposes”, Next Generation PC Fair, KINTEX, Ilsan, Korea, November 16-18, 2006
5. “Realistic Broadcasting System”, SEK/IT Techno Mart/ITRC Forum, COEX, Seoul, Korea, June 21-24, 2006
6. “K-Touch™ Haptic API & Wearable Tactile Display”, Global Sources Electronics & Components China Sourcing Fair, AsiaWorld-Expo, Hong Kong, April 15-18, 2006
7. “Haptic Deformation, Games, and Various Haptic Algorithms”, Conference on HCI/VR/CG/DESIGN, Phoenixpark, PyeongChang, Korea, February 13-19, 2006
8. “K-Touch™ Haptic API & Haptic Modeling”, IT-SoC 2005 & Next Generation PC Fair, COEX, Seoul, Korea, November 3-5, 2005
9. “Realistic Broadcasting System”, SEK/IT Techno Mart/ITRC Forum, COEX, Seoul, Korea, June 9-11, 2005

10. “Virtual Buddhist Image Sculpting Experience System with Haptic Interface”, Conference on HCI/VR/CG/DESIGN, EXCO, Daegu, Korea, January 31-February 3, 2005

Teaching (University of Houston)

Courses Taught

- KIN 3309: Biomechanics (Spring/Fall 2015-2018)
- PEP 7398: Journal Club (Spring 2015, Fall 2016)
- PEP 8390: Contemporary Issues in Health and Human Performance (Spring 2017)
- PEP 8350: HHP Candidacy Project Research (Fall 2017)

Courses Developed

- PEP 7397: Advanced Biomechanical Signal Processing and Analysis (Spring 2016)

Guest Lecturer

- PEP 8831: Integrated Systems Physiology (Fall 2014)
- PEP 8303: HHP Research Seminar (Fall 2015, Fall 2016)

Student and Postdoctoral Supervision

Postdoctoral Mentoring

- Junmo An, Ph.D., Department of Health and Human Performance, University of Houston, October 2018-present
- Yoonsun Son, Ph.D., Department of Health and Human Performance, University of Houston, July 2016-February 2018

Current Doctoral Student

- Dongyual Yoo, Ph.D. Student, Department of Health and Human Performance, University of Houston, September 2016-present

Former Doctoral Student

- Alberto Fung, Ph.D. Student, Department of Health and Human Performance, University of Houston, September 2015-February 2019

Awarded Doctorates

- Ahsan Shahzad, “Falls detection, prediction and cognitive decline assessment based on inertial sensors”, School of Electrical Engineering and Computer Science, Gwangju Institute of Science and Technology, February 2019, Committee
- Rakshatha Kabbaligere, “Adaptive changes in gait and balance control to unloading”, Department of Health and Human Performance, University of Houston, December 2018, Committee
- Craig Workman, “The influence of dopaminergic medication on gait and balance

automaticity and nonlinear regularity in Parkinson's disease", Department of Health and Human Performance, University of Houston, December 2018, Committee

Stefan Madansingh, "Leveraging sensorimotor adaptive generalizability to minimize dynamic fall risk", Department of Health and Human Performance, University of Houston, December 2016, Co-Chair

Amber Chelette, "The effect of age, cognition, and context on human responses to tendon vibration", Department of Health and Human Performance, University of Houston, December 2016, Committee

Recep Ali Ozdemir, "Cortical control of human upright stance", Department of Health and Human Performance, University of Houston, May 2016, Mentor

Marius Dettmer, "Vibration of the foot sole as an intervention to improve older adults' postural stability", Department of Health and Human Performance, University of Houston, May 2014, Mentor

Awarded Masters

Linh Vu, M.S., "Assessing lumbar kinematics with flexible strain sensor system", Department of Industrial Engineering, University of Houston, January 2018, Committee

Thesis Committee Member (in process)

David Young, Ph.D., Department of Health and Human Performance, University of Houston, Expected December 2019

David Temple, Ph.D., Department of Health and Human Performance, University of Houston, Expected May 2019, Co-Chair

Andrew Paek, Ph.D., Department of Electrical and Computer Engineering, University of Houston, Expected May 2019

Doctoral Candidacy Committee Member

David Young, "Comparison of martial artists and healthy individuals using bipedal balance task and gait perturbations", Department of Health and Human Performance, University of Houston, March 2017

Ram Kinker Mishra, "Identification of postural control features in Parkinson's disease and elderly adults", Department of Health and Human Performance, University of Houston, January 2017

Rakshatha Kabbaligere, "Sensory reweighting during sensory conflict between vision and ankle proprioception", Department of Health and Human Performance, University of Houston, March 2016

Raul Amador, "The effect of reduced sensation and altered proprioception on gait kinetics", Department of Health and Human Performance, University of Houston, January 2016

Craig Workman, "Validity and reliability of two protocols for measuring reachable workspace volume in able-bodied and stroke subjects", Department of Health and Human Performance, University of Houston, February 2015

Research Assistants and Interns

Jahnvi Schneider, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2018
Balu Kurup, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2018
Kayla Bustos, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2018
Mubeen Iqbal, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2016-2017
Amy Tsang, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2016-2017
Ayesha Masood, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2016
Chelsea Ngo, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2016
Michael Appleman, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2016
Hosu Lee, graduate research intern, School of Mechanical Engineering, Gyeongsang National University, Summer 2015 and 2016
Andrea White, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2015
Crystal Okenkpu, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2015
Liya Oommen, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2015
Shernice Thomas, undergraduate research assistant, Department of Health and Human Performance, University of Houston, 2015

Student Success

Ayesha Masood, "Evaluation of delayed FDG-PET in differentiating progressive disease from pseudoprogression in brain tumors", Undergraduate Research Day, University of Houston, October 13, 2016

Service

University Member

Building Reliable Advances and Innovations in Neuroethology (BRAIN) Center, Spring 2018-present
Center for Neuromotor and Biomechanics Research (CNBR), Summer 2013-present

Department Member

Dietetic Internship Selection Committee, Fall 2017-present
Graduate Research Degrees Membership Committee, Fall 2017-present
Graduate Research Degrees, Spring 2017-present
Faculty Search Committee for Director of Clinical Education, Fall 2016-Fall 2017

Faculty Search Committee for Biomechanics, Spring 2016
Undergraduate Studies Committee, Fall 2015-Spring 2017
Scholarship Committee, Fall 2014-Spring 2016
Faculty Search Committee for Motor Behavior, Fall 2014-Spring 2015

Editorial Board Member

Journal of Physical and Rehabilitation Medicine Forecast, 2017-present
Journal of Computer Engineering, 2016-present

Grant Reviewer

Small Business Innovation Research (SBIR) program, NIH National Cancer Institute (NCI), March 2018
NASA Space Technology Research Fellowship, 2014-2017

Manuscript Reviewer (2012-present)

Clinical Interventions in Aging
Design of Medical Devices Conference
Experimental Brain Research
Frontiers in Psychology-Movement Science and Sport Psychology
Gait and Posture
Gerontology
IEEE Engineering in Medicine and Biology Society
IEEE Haptics Symposium
IEEE Transactions on Biomedical Engineering
IEEE Transactions on Human-Machine Systems
IEEE Transactions on Neural Systems and Rehabilitation Engineering
IEEE Transactions on Haptics
Intelligent Service Robotics
Interacting with Computers
International Conference on Control, Automation and Systems
Journal of Biomechanics
Journal of Diabetes Science and Technology
Journal of Intelligent Service Robotics
Journal of Medical Devices
Journal of NeuroEngineering and Rehabilitation
Journal of Physical and Rehabilitation Medicine Forecast
Multisensory Research
PLOS ONE
Soft Robotics
Somatosensory and Motor Research

Service to Professional Organizations

Session Chair, 15th International Conference on Control, Automation and Systems, Busan, Korea, October 13-16, 2015
Professional Mentor, Technology Localization Program, Korea Institute of Industrial

Technology, Santa Clara, USA, October 18-20, 2014
Professional Mentor, Technology Localization Program, Korea Institute of Industrial
Technology, Santa Clara, USA, October 19-20, 2012

Professional Memberships

01/2014-present	Member, International Society for Posture & Gait Research (ISPGR)
01/2011-present	Member, Korean-American Scientists and Engineers Association (KSEA)
04/2009-present	Member, Society for Neuroscience (SfN)
01/2006-present	Member, Institute of Electrical and Electronics Engineers (IEEE)