

## CURRICULUM VITAE

# JEONGHEE KIM

Quantitative Neuro Rehabilitation Lab

Engineering Technology and Industrial Distribution | Texas A&M University

106 Ross Street | Fermier Hall 008A | College Station, TX 77843-3367

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## RESEARCH INTERESTS

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- Wearable embedded mobile system for biomedical applications
- Neuro-electronic system with closed-loop optimization
- Cyber-physical system for applications of medical devices, assistive technology, and rehabilitation
- Signal processing and statistical analysis for bioengineering applications
- Modeling nervous system and human behaviors of neurological disorders and physical disabilities
- Experimental design for quantitative assessment and human computer interactions

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## ACADEMIC APPOINTMENT

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**Assistant Professor**, Engineering Technology and Industrial Distribution  
Texas A&M University, College Station, Texas

**September 2018-Present**

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## EDUCATION

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**Doctor of Philosophy**, Electrical and Computer Engineering  
**Georgia Institute of Technology**, Atlanta, Georgia  
*Advisor: Dr. Stephen P. DeWeerth, Co-Advisor: Dr. Omer T. Inan*

**May 2018**

**Master of Science**, Electrical Engineering: System  
**University of Michigan**, Ann Arbor, Michigan  
*Advisor: Dr. Kathleen Sienko*

**December 2009**

**Bachelor of Science**, Electrical Engineering (Duel-Degree), Magna Cum Laude  
**University of Texas at Dallas**, Richardson, Texas  
*Advisor: Dr. John H.L Hansen*

**May 2008**

**Bachelor of Science**, Electrical Engineering and Computer Science (Duel-Degree)  
**Kyungpook National University**, Daegu, South Korea

**August 2007**

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## HONORS & AWARDS

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- **Outstanding Research Award** for Predoctoral Student, Association of Korean Neuroscientists (AKN), San Diego, CA, Nov. 2016.
- **NSF Young Professional Award** at EMBC 2016, Orlando, FL, Aug. 2016 (\$ 500).
- **Poster Competition Awards** from Office of Executive Vice President for Research at Career, Research, Innovation and Development Conference 2016 (CRIDC), Georgia Tech, Atlanta, GA, Mar. 2016 (\$ 1,500).

- **Honorable mention** in 20th Samsung HumanTech Paper Award, Samsung Electronics, Feb. 2014.
- **Best Demonstration Award** in IEEE Biomedical Circuits and Systems Conference, *Taiwan*, Nov. 2012.
- **Finalist**, Inside-Edge Paper Award, Samsung Electro-mechanics, Aug. 2011
- **Da Vinci Awards Finalist**, National MS Society, Michigan Chapter, 2010.
- **The LEO Award** in the Prosthetics/Orthotics/Controls category, National MS Society, Michigan Chapter, 2010.
- **Barrier Breaker Award**, 12th Annual Galaxy of Stars, The Tommy Nobis Center, 2010.
- **3rd Place of Senior Design project**, Department of Electrical Engineering, University of Texas at Dallas, 2008.
- **3rd Place of Senior Design project**, Department of Electrical Engineering, University of Texas at Dallas, 2007.
- **Korean Honor Scholarship**, The Embassy of the Republic of Korea, 2007.
- **The University of Texas at Dallas Academic Excellence Transfer Scholarship**, 2006-2008.
- **Jonsson School Scholarship**, University of Texas at Dallas, 2006-2008.
- **Dean's List**, University of Texas at Dallas, 2006-2008.
- **2nd Place of Robot Soccer**, ROBOFESTA, Department of Industry and Resource, Republic of Korea, 2005.
- FIRA Korea Cup at Korea Robot Soccer Association
- **3rd Place** (Small League MiroSot) 2005; **3rd Place** (Middle League MiroSot) 2005.
- **1st Place** (Middle League MiroSot) 2004; **3rd Place** (Small League MiroSot) 2005.
- **1st Place** of Pusan-Kyungnam Robot Soccer Competition, 2004.
- **National Scholarship** for natural science and engineering student, Ministry of Education and Human Resources Development, Republic of Korea, 2003-2006.
- **Brain Korea 21 Academic Excellence Scholarship**, 2003.

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## PUBLICATIONS



### Book Chapters

P. Angkititrakul, J.H.L. Hansen, S. Choi, T. Creek, J. Hayes, **J. Kim**, D. Kwak, L.T. Noecker, and A. Phan, (2009) "UTDrive: The smart vehicle project," In *In-Vehicle Corpus and Signal Processing for Driver Behavior* (Ch. 5., pp. 55-67). Springer US.

### Journal Papers

14. **J. Kim**, T. Wichmann, Omer T. Inan, and S.P. DeWeerth, "Analyzing Stimulation Parameters for Effective Tremor Modulation via Phase-locked Peripheral-Nerve Electrical Stimulation," ready to submit in *IEEE Trans. on Neural Systems and Rehabilitation engineering*.
13. **J. Kim**, T. Wichmann, Omer T. Inan, and S.P. DeWeerth, "Evaluation of the Quantitative Assessment Methods for Essential Tremor," ready to submit in *Parkinsonism & Related Disorders*.
12. **J. Kim**, T. Wichmann, Omer T. Inan, and S.P. DeWeerth, "Peripheral-Nerve Electrical Stimulation for Modulation of Essential Tremor," ready to submit in *IEEE Trans. on Neural Systems and Rehabilitation engineering*.
11. **J. Kim**, A. Ayala-Acevedo, and M. Ghovanloo, "Efficient Text Entry Methods using a Tongue-Operated Assistive Device," ready to submit in *Int. J of Human-Computer Studies*.
10. **J. Kim**, H. Park, J. Bruce, D. Rowles, J. Holbrook, B. Nardone, D. West, A. Laumann, E. Roth, and M. Ghovanloo, "Assessment of Tongue Drive Assistive Technology on Computers and Wheelchairs for People with Tetraplegia," *IEEE Trans. on Neural Systems and Rehabilitation Engineering*, vol. 24, no. 1, pp 68-78, Jan. 2016 (*featured article*).
9. A. Laumann, J. Holbrook, J. Minocha, D. Rowles, B. Nardone, D. West, **J. Kim**, J. Bruce, E. Roth, and M. Ghovanloo, "Safety and efficacy of medically performed tongue piercing in people with tetraplegia for use with tongue-operated assistive technology," *Topics in Spinal Cord Injury Rehab.*, vol. 21, no. 1, pp. 61-76, Jan. 2015.
8. **J. Kim**, H. Park, J. Bruce, D. Rowles, J. Holbrook, B. Nordone, D. West, A. Laumann, E. Roth, E. Veledar, and M. Ghovanloo, "Qualitative Assessment of Tongue Drive System by People with High-Level Spinal Cord Injuries," *J. Rehabil. Res. Dev.*, vol. 51, no. 3, pp. 451-466, Jun. 2014.

7. **J. Kim**, H. Park, J. Bruce, E. Sutton, D. Rowles, D. Pucci, J. Holbrook, J. Minocha, B. Nardone, D. West, A. Laumann, E. Roth, M. Jones, E. Veledar, and M. Ghovanloo "The tongue enables computer and wheelchair access for people with high-level disabilities," *Science Translational Medicine*, vol. 5, no. 213, p. 213ra166, Nov. 2013 (featured article; Impact Factor: 16.796).
6. X. Huo, H. Park, **J. Kim**, and M. Ghovanloo, "A Dual-Mode Human Computer Interface Combining Speech and Tongue Motion for People with Severe Disabilities," *IEEE Trans. on Neural Systems and Rehabilitation engineering*, vol. 21, no. 6, pp.979-991, Nov. 2013.
5. M. Kothari, P. Svensson, J. Jensen, A. Kjærsgaard, **J. Kim**, J.F. Nielsen, M. Ghovanloo, and L. Baad-Hansen, "Training induced cortical plasticity compared between three tongue training paradigms," *Neuroscience*, vol. 246, no. 29, pp. 1-12, Aug. 2013.
4. H. Park, M. Kiani, H. Lee, **J. Kim**, J. Block, B. Gosselin, and M. Ghovanloo, "A Wireless Magnetoresistive Sensing System for an Intraoral Tongue-Computer Interface," *IEEE Trans. on Biomedical Circuits and Systems*, vol. 6, no. 6, pp. 571-585, Dec. 2012.
3. B. Yousefi, X. Huo, **J. Kim**, E. Veledar, and M. Ghovanloo, "Quantitative and Comparative Assessment of Learning in a Tongue-Operated Computer Input Device—Part II: Navigation Tasks," *IEEE Trans. Information Technology in Biomedicine*, vol. 16, no. 4, pp. 633-643, July 2012.
2. **J. Kim**, X. Huo, J. Minocha, J. Holbrook, A. Laumann, and M. Ghovanloo, "Evaluation of a smartphone platform as a wireless interface between tongue drive system and electric-powered wheelchairs," *IEEE Trans. on Biomedical Engineering*, vol. 59, no. 6, pp. 1787-1796, June 2012.
1. B.C. Lee, **J. Kim**, S. Chen, and K.H. Sienko, "Cell phone based balance trainer," *J. Neuroeng. Rehabil*, vol 9. no. 10, pp. 1-14, Feb. 2012.

### **Peer-reviewed Conference Proceedings**

13. **J. Kim**, C. Parnell, T. Wichmann, and S.P. DeWeerth, "Quantitative Assessment of Arm Tremor in People with Neurological Disorders," In *Engineering in Medicine and Biology Society (EMBS), 2016 Annual International Conference of the IEEE*, pp. 2299-2302, Aug. 2016.
12. **J. Kim**, C. Parnell, T. Wichmann, and S.P. DeWeerth, "Longitudinal Wearable Tremor Measurement System with Activity Recognition Algorithms for Upper Limb Tremor," In *Engineering in Medicine and Biology Society (EMBS), 2016 Annual International Conference of the IEEE*, pp. 6166-6169, Aug. 2016.
11. **J. Kim**, C. Bulach, K. M. Richards, D. Wu, A.J. Butler, and M. Ghovanloo, "An Apparatus for Improving Upper Limb Function by Engaging Synchronous Tongue Motion," *International IEEE EMBS Neural Engineering Conference*, pp. 1574-1577, Nov. 2013.
10. H. Park, **J. Kim**, and M. Ghovanloo, "Intraoral tongue drive system demonstration," In *IEEE Biomedical Circuits and Systems Conference (BioCAS)*, pp. 81-81, Nov. 2012.
9. H. Park, **J. Kim**, and M. Ghovanloo, "Development and preliminary evaluation of an intraoral tongue drive system," In *Engineering in Medicine and Biology Society (EMBS), 2012 Annual International Conference of the IEEE*, pp. 1157-1160, Aug. 2012.
8. **J. Kim**, H. Park, and M. Ghovanloo, "Tongue-operated assistive technology with access to common smartphone applications via Bluetooth link," In *Engineering in Medicine and Biology Society (EMBS), 2012 Annual International Conference of the IEEE*, pp. 4054-4057, Aug. 2012.
7. H. Park, B. Gosselin, M.Kiani, H. Lee, **J. Kim**, X. Huo, and M.Ghovanloo. "A wireless magnetoresistive sensing system for an intra-oral tongue-computer interface." In *Solid-State Circuits Conference Digest of Technical Papers (ISSCC), 2012 IEEE International*, pp. 124-126, 2012.
6. H. Park, **J. Kim**, X. Huo, I.O. Hwang, and M. Ghovanloo, "New ergonomic headset for tongue-drive system with wireless smartphone interface," In *Engineering in Medicine and Biology Society (EMBS), 2011 Annual International Conference of the IEEE*, pp. 7344-7347, Aug. 2011.
5. H. Park, **J. Kim**, X. Huo, I. Hwang, M. Ghovanloo, "New ergonomic headset for tongue-drive system with wireless smartphone interface," *RESNA/ICTA 2011*, Toronto, Canada, June 2011.

4. **J. Kim**, X. Huo, and M. Ghovanloo, "Wireless control of smartphones with tongue motion using tongue drive assistive technology," In *Engineering in Medicine and Biology Society (EMBS), 2010 Annual International Conference of the IEEE*, Buenos Aires, Argentina, pp. 5250-5253, Sept. 2010.
3. **J. Kim**, K. H. Sienko, "The design of a cell-phone based balance-training device," *Design of Medical Devices Conference*, Minneapolis, MN, April 14-16, 2009.
2. P. Angkititrakul, D. Kwak, S. Choi, **J. Kim**, A. PhucPhan, A. Sathyanarayana, J.H.L. Hansen, "Getting Start with UTDrive: Driver-Behaviour Modeling and Assessment of Distraction for In-Vehicle Speech Systems", *Interspeech 2007*, Antwerp, Belgium, pp. 1334-1337, Sept. 2007.
1. S. Choi, **J. Kim**, D. Kwak, J.H.L. Hansen "Analysis and Classification of Driver Behavior using In-Vehicle CAN-Bus Information," *Biennial Workshop on DSP for In-Vehicle and Mobile Systems*, Istanbul, Turkey, pp.17-19, June 2007.

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### **Peer-reviewed Journal Abstract**

4. E.J. Roth, J. Bruce, M. Ghovanloo, J.S. Holbrook, X. Huo, **J. Kim**, A.E. Laumann, and et al. "The Tongue Drive System: Testing Novel Assistive Technology that Uses Magnetic Signals Derived from Tongue Movements." *PM&R*, vol. 4, no. 10, pp. S182-S183, Oct. 2012.
3. J.S. Minocha, J.S. Holbrook, **J. Kim**, E. Sutton, J. Bruce, D.R. West, and A.E. Laumann, "Oral plethysmography: A novel method to clinically assess tongue swelling," *Journal of Investigative Dermatology*, vol. 132, pp. S87-S87, May 2012.
2. J. Minocha, J. Holbrook, B. Yousefi, **J. Kim**, X. Huo, D. Rowles, B. Bartlett et al. "Use of a magnet-containing barbell in the tongue to operate the tongue drive system." *Journal of Investigative Dermatology*, vol. 131, pp. S81-S81, 2011.
1. **J. Kim**, and K. H. Sienko, "The design of a cell phone based balance-training device," *ASME Journal of Med. Devices*, vol. 3, no. 2, June 2009.

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### **PATENTS**

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1. H. Park, **J. Kim**, and S. P. DeWeerth, "Apparatus and System for Electrically Stimulating the Oral Cavity," Filing date: Oct. 30, 2017, U.S. Provisional Application Serial No. 62/578,720.

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### **FUNDING ACTIVITIES**

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- **Texas A&M Triads for Transformation (T3)**, "Muscle Synergies, Assistive Devices and the Control Of Movement," \$30,000, PIs: Dr. Louis G Tassinary, Dr. Jeonghee Kim, Dr. Takashi Yamauchi, Status: Funded.
  - **National Science Foundation, Research Initiation Initiative (CRII)**, "Longitudinal Tremor Monitoring System (LTMS) for Patients with Parkinson's Disease and Essential Tremor," \$173,150, PI: Dr. Jeonghee Kim, Status: Pending.
  - **Johnson & Johnson WiSTEM2D Scholar Award** "Longitudinal Tremor Monitor and Stimulation (LTMS) System for Patients with Parkinson's disease and Essential Tremor," \$150,000, PI: Dr. Jeonghee Kim, Status: Pending.
  - **Christopher Dana Reeve Foundation**, "Multifunctional intraORal Assistive technology (MORA): toward the intuitive limb-free control of the environment," \$30,000, PI: Dr. Hangu Park, Co-PI: Dr. Jeonghee Kim, Status: Pending.
  - **VentureWell Faculty Award**, "Virtual Reality based Tremor Monitoring System (V-TMS) for Patients with Parkinson's Disease and Essential Tremor," \$30,000, PI: Dr. Jeonghee Kim, Status: Pending.
  - American Association of University Women (AAUW) Research Publication Grant, "Longitudinal Tremor Monitor and Stimulation (LTMS) System with Parameter Optimization for Patients with Parkinson's disease and Essential Tremor," \$34,825, PI: Dr. Jeonghee Kim, Status: Pending.
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- **Neural Engineering Center Seed Grant**, “Long-Term Upper Limb Tremor Measurement and Activity Recognition for Patients with Essential Tremor,” \$5,000, June 2015–Oct. 2015

PI: Dr. Stephen P. DeWeerth, Co-PI: Dr. Thomas Wichmann

Role: Writing for whole proposal, and initiated the project with hardware, software, signal processing algorithm, and quantitative assessment.

- **National Center for Advancing Translational Sciences of the National Institutes of Health**, Health Innovation Program (HIP), “Accelerating Upper Limb Rehabilitation in Stroke Patients by Engaging Synchronous Tongue and Wrist Motion,” \$49,994, Aug. 2013–Sep. 2015

PIs: Dr. Maysam Ghovanloo and Dr. Andrew Butler

Role: Writing for the aims and research methodology, and initiated the project with hardware, software, signal processing algorithm, and quantitative assessment.

- **National Science Foundation, Information and Intelligent Systems, Human-Centered Computing (HCC) Small**, “A Multimodal Human Computer Interface for Individuals with Severe Disabilities and Human Factors Research,” Dec. 2012; Not funded.

PIs: Dr. Maysam Ghovanloo and Dr. David Anderson

Role: Writing for the research methodology and quantitative assessment, and initiated the project with hardware, software, and design for assessment method.

- **Wireless Rehabilitation Engineering Research Center (RERC)**, App Factory Grant Proposal 2012; Finalist (2<sup>nd</sup> place)

PI: Dr. Maysam Ghovanloo

Role: Writing for whole proposal, and initiated the project with hardware, software, signal processing algorithm, and quantitative assessment.

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## STUDENT MENTORING ACTIVITIES

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- **Bing Jiang**: PhD Student, Texas A&M Electrical and Computer Engineering.
- Capstone Design Project Team (**William Berglund, Trent Minier, Nicholas Fohn, Marcus Ramirez**): “Development of Virtual Reality based Tremor Monitoring System (V-TMS),” Spring 2019-Fall 2019, Texas A&M Electronic System Engineering Technology.
- SPINE, Capstone Design Project Team (**Tony W. Romero Jr., Kendall Young, Leslie Barreto, Charlie Giang**): “Development of closed-loop insect treadmill with real-time stimulation system,” Fall 2018-Spring 2019, Texas A&M Electronic System Engineering Technology.
- **Claire K. Parnell**: “Analysis of the Research Questionnaire for non-motor symptoms for people with essential tremor,” Spring 2016, Georgia Tech, BME.
- **Miguel S. Flores**: “Reducing delay in hand mentor to improve to expand clinical functionality,” Summer 2015-Spring 2016, Georgia Tech, BME.
- **Ravinderjit Singh**: “The closed-loop optimization of deep brain stimulation programming,” Summer 2015-Spring 2016, Georgia Tech, BME.
- **Dixita Patel, Upekha Ruwanara Ananda, Devon James King, Armin Jamaledin**: “Tongue-Operated Rehabilitation Robotic Interface,” Senior Design Group, Fall 2012, Georgia Tech, BME.
- **Sylmarie Dávila-Montero**: “Universal Graphical User Interface Design for the Tongue Drive System,” Summer Undergraduate Research in Engineering/Science (SURE) Program 2012, Georgia Tech.
- **Revanth Rameshkumar**: “Interfacing the Tongue Drive System with Android Phones for Environmental Control,” High school Student, Fall 2011 - Spring 2012
- **Jecolia Longtchi**: “Wireless Interface between Tongue Drive System and Android via Bluetooth,” Summer Undergraduate Research in Engineering/Science (SURE) Program 2011, Georgia Tech.
- **Temi Olubango**: “A comparison between Tongue Drive System and 4 other Assistive Technologies: Sip’n’Puff, Eye Tracker, Voice Control, and Head Mouse,” Summer Undergraduate Research in Engineering/Science (SURE) Program 2010, Georgia Tech.

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## TEACHING

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- **ESET 369: Electronic Instrumentation for Biomedical Application** **Fall 2018**  
Texas A&M University, Engineering Technology and Industrial Distribution

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## FACULTY TRAINING

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- *Rising Stars* in EECS program 2016 **October 2016**  
Carnegie Mellon University, Pittsburgh, Pennsylvania
- *NextProf* Engineering Workshop 2016 **September 2016**  
University of Michigan, Ann Arbor, Michigan
- *Preparing Future Faculty Workshop* Fall 2016, Center for Teaching and Learning **September 2016**  
Georgia Institute of Technology, Atlanta, Georgia

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## PRESENTATIONS AND DEMONSTRATIONS

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- **Invited Seminar**, “Future of Healthcare: Wearable, Mobile, and Non-Invasive Technology for Human,” ECE Lecture Series (Malone Center), *Johns Hopkins University*, April 2017.
- **Invited Seminar**, Nurse Engineering, *University of Massachusetts*, March 2017.
- **Invited Seminar**, ECE, *University of Texas at Dallas*, March 2017.
- **Invited Lecture**, ECE Lecture Series, *Rutgers University*, March 2017.
- **Invited Seminar**, ECE, *University of Tennessee at Knoxville*, Feb. 2017.
- **Poster presentation**, “Evaluation of a Wearable Tremor Modulation Device for Patients with Essential Tremor Based on Electrical Peripheral Nerve Stimulation,” *SfN 2016*, San Diego, CA, Nov. 2016.
- **Poster presentation**, “Evaluation of a Wearable Tremor Modulation System for People with Kinetic Tremor Based on Electrical Peripheral Nerve Stimulation,” *Rising Star 2016*, Carnegie Mellon University, Pittsburgh, PA, Oct. 2016.
- **Poster presentation**, “Evaluation of a Real-time Closed-loop Tremor Modulation for People with Kinetic Tremor using Peripheral Nerve Stimulation,” *NextProf Engineering 2016*, University of Michigan, Ann Arbor, Sep. 2016.
- **Oral presentation**, “Real-time closed-loop tremor modulation using peripheral-nerve stimulation,” *NSF Young Professional Award EMBC 2016*, Orlando, FL, Aug. 2016.
- **Oral presentation**, “Longitudinal Wearable Tremor Measurement System with Activity Recognition Algorithms for Upper Limb Tremor,” *EMBC 2016*, Orlando, FL, Aug. 2016.
- **Poster presentation**, “Quantitative Assessment of Arm Tremor in People with Neurological Disorders,” *EMBC 2016*, Orlando, FL, Aug. 2016.
- **Poster presentation**, “Quantitative Assessment and Longitudinal Monitoring System of Arm Tremor in People with Neurological Disorder,” Career, Research, Innovation and Development Conference 2016 (*CRIDC*), Georgia Institute of Technology, Atlanta, GA, Mar. 2016.
- **Poster Presentation**, “Evaluation for Improving Upper Limb Function by Engaging Synchronous Tongue Motion,” *Georgia Tech Research & Innovation Conference 2014*, Mar. 2014.
- **Poster presentation and demonstrations**, “Tongue Drive System,” *5<sup>th</sup> Annual Healthy Environments and Active Lifestyle Open House*, Georgia Institute of Technology, Atlanta, GA, Apr. 2013.
- **Poster presentation and demonstrations**, “Tongue Drive System,” *3<sup>rd</sup> Annual SSEF STEM Event 2013*, Health Science & Technology, Feb. 2013.
- **Poster Presentation**, “Dual-center Clinical Assessment of the Tongue Drive System,” *Georgia Tech Research & Innovation Conference 2013*, Feb. 2013.
- **Presentation and demonstrations**, “Tongue Drive System,” *Ability Expo*, Feb. 2013.
- **Presentation and demonstrations**, “Tongue Drive System,” *TEDx Peachtree*, Sep. 2012

- **Oral presentation**, “Tongue-operated assistive technology with access to common smartphone applications via bluetooth link,” *EMBC 2012*, San Diego, Aug. 2012.
- **Presentation**, “Dual-Center Clinical Assessment of the Tongue Drive System” *IEEE EMB/CAS/SMC Workshop on Brain-Machine-Body Interfaces*, Aug. 2012.
- **Presentation and demonstrations**, “Tongue Drive System,” *Ability Expo*, Feb. 2012.
- **Poster presentation and demonstrations**, “Tongue Drive System,” *Center for Assistive Technology and Environmental Access Open House*, Georgia Institute of Technology, Atlanta, GA Mar. 2011.
- **Presentation and demonstrations**, “Tongue Drive System,” *Ability Expo*, Oct., 2010.
- **Poster Presentation**, “Brain-Tongue Computer Interfacing” *Neural Computer Interface 2010* Conference, Long Beach, CA, June 2010.
- **Poster presentation and demonstrations**, “Tongue Drive System,” *Center for Assistive Technology and Environmental Access Open House, Georgia Institute of Technology*, Atlanta, GA, Apr. 2010.
- **Poster Presentation**, “The design of a cell phone based balance training device” *Design of Medical Devices Conference*, Minneapolis, MN, 2009.
- **Poster Presentation**, Compliance Conference, University of Texas System, Austin, TX, 2007.
- **Poster Presentation and demonstrations**, *SEEK SQUARE Exhibition*, Kyungpook National University, ECE Department, 2003-2004.
- **Poster Presentation and demonstrations**, *Brain KOREA 21 ANNUAL Exhibitions* at COEX, Seoul, Korea, 2003.

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## SERVICES & OUTREACH

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|---|----------------------|
| • 2015 BME Graduate Student Recruitment   | <b>March 2015</b>    |
| • 2014 BME and BIOE Student Recruitment   | <b>March 2014</b>    |
| • 2013 Annual ECE RUSH (Undergraduate Student Outreach)                                     | <b>August 2013</b>   |
| • K-12 Outreach: United Scientist of Rockbridge (4 <sup>th</sup> and 5 <sup>th</sup> grade) | <b>February 2013</b> |
| • K-12 Outreach: State Bridge Crossing Elementary School (4 <sup>th</sup> grade)            | <b>January 2013</b>  |
| • K-12 Outreach: Lake Forest Elementary School (5 <sup>th</sup> grade)                      | <b>November 2012</b> |
| • K-12 Outreach: State Bridge Crossing Elementary School (4 <sup>th</sup> grade)            | <b>January 2012</b>  |
| • Math tutoring for low-income children at Martin Luther King Jr. Library at Dallas, TX     | <b>2006-2008</b>     |

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## PROFESSIONAL MEMBERSHIPS

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|---|---------------------|
| • Member in the Korean-American Women in Science and Engineering at Texas A&M University Chapter (KWISE @ TAMU) | <b>2018–present</b> |
| • Reviewer of the Computers and Electronics in Agriculture  | <b>2017–present</b> |
| • Reviewer of the International Journal of Human – Computer Studies   | <b>2017–present</b> |
| • Member of the American Association for the Advancement of Science (AAAS)                                      | <b>2016–present</b> |
| • Member in Society for Neuroscience (SfN)  | <b>2016–present</b> |
| • Reviewer of the International Conference on Biomedical Engineering and Biotechnology                          | <b>2013–2015</b>    |
| • Member in Biomedical Engineering Society (BMES)   | <b>2014–present</b> |
| • Member in IEEE Women in Engineering Membership  | <b>2013–present</b> |
| • Member in IEEE Engineering in Medicine and Biology Society  | <b>2012–present</b> |
| • Member in Institute of Electrical and Electronics Engineers (IEEE)  | <b>2010–present</b> |

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## LANGUAGES

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Korean and English

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**VISA STATUS**

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U.S. Permanent Resident