

Yang-Soo Yoon  
Department of Communication Sciences and Disorders  
Baylor University  
One Bear Place #97332  
[Office: 254-710-6364]  
[Fax: 254-710-2590]  
[Email: [yang-soo\\_yoon@baylor.edu](mailto:yang-soo_yoon@baylor.edu)]

## POSITION HISTORY

- 8/1/22-present: Associate professor, Department of Communication Sciences and Disorders  
Baylor University
- 8/8/18-7/31/22: Assistant professor, Department of Communication Sciences and Disorders  
Baylor University
- 1/2-/14-7/31/18: Assistant Professor, Department of Speech, Language, and Hearing Sciences  
Texas Tech University Health Sciences Center (TTUHSC)
- 12/17/12-12/15/13: Research Associate, Cincinnati Children's Hospital Medical Center, Communication  
Sciences Research Center
- 6/16/08-12/16/12: Postdoctoral Fellow, House Ear Institute, the Department of Speech Processing and  
Auditory Perception

## EDUCATION

- PH.D. Speech and Hearing Science, University of Illinois at Urbana – Champaign, 2008  
Title: *The consonant loss profile and perceptual confusions for the hearing-impaired listeners in noise*  
Co-mentors: Jont Allen, Ph.D. and David Gooler, Ph.D.
- Doctoral program (Aug. 2001-June 2002), Speech and Hearing Sciences, Indiana University  
Bloomington, IN, 2002  
Mentor: Diane Kewley-Port, Ph.D.
- M.S. Electrical Engineering, Texas A & M University - Kingsville, TX, 1996  
Title: *The estimation and simulation of the multichannel noise cancellation inside the vehicle*  
Mentor: Sung-won Park, Ph.D.
- B.E. Electrical Engineering, Seoul National University of Science & Technology, Seoul, Korea, 1993  
Senior project: *Design digital thermostat using CMOS and interfacing with 16-bit personal computer*  
Mentor: Myeong-soo Kim, Ph.D.

## AWARDS AND HONORS

- 2023 (January) Research Leave, supporting a semester for research
- 2022 (November) Robbins College Pure Gold Research Award, Baylor University
- 2021 Baylor Postdoctoral Hiring Program Award, supporting a postdoctoral fellow for three years
- 2021 Baylor Summer Sabbatical Leave, supporting two-month summer research
- 2020 Baylor Summer Sabbatical Leave, supporting two-month summer research
- 2020 ASHA Clinical Practice Research Institute Award
- 2019 Baylor University Proposal Development Award
- 2018 Selected as a Baylor Rising Stars Program
- 2018 Selected as a faculty member of the Texas Tech University Health Sciences Center, School of  
Health Professions, Chapter of The Alpha Eta National Honor Society
- 2017 Dean's Excellence in Research Award at TTUHSC
- Selected for ASHA's Research Mentoring Network: Lessons for Success, 2017

- 2014 Outstanding Teacher of the Year Awards in Speech, Language, and Hearing Sciences Undergraduate Program, Texas Tech University Health Sciences Center Student Government Association
- 2012 Editors' Award for the Hearing section of the *Journal of Speech, Language, and Hearing Research* for the article, "Speech Recognition and Acoustic Features in Combined Electric and Acoustic Stimulation"
- 2006 Student scholarship for International Hearing Aid Research Conference
- 2005 Acoustical Society of America (ASA) traveling Grant for ASA Minneapolis Meeting
- 2005 UIUC Graduate College Traveling Grant for ASA Vancouver Meeting
- 2003 UIUC Graduate College Traveling Grant for ASA Nashville Meeting
- 1993 Graduate summa cum laude from Seoul National University of Science & Technology, Korea
- 1991-1992 Awarded Electrical Engineering National Dean's list in National University in Korea
- 1990 Awarded the second prize at Seoul National University of Technology, Korea
- 1989-1992 Awarded Dean's fellowship Seoul National University of Science & Technology, Korea

## RESEARCH INTERESTS

- To enhance speech recognition by optimizing binaural hearing with hearing aids and cochlear implants
- To develop efficient clinical treatment for people with noise-induced hearing loss and tinnitus

## RESEARCH SUPPORT

- **Ongoing**

### **Extramural**

NIH R15 AREA (total cost: \$431,863) 9/1/2021-8/31/2024  
 Speech perception enhancement using novel signal processing in bimodal hearing  
 Role: PI

Phonak Charity, Research & Education 08/19/2021 – present  
 Provided hearing aids for bimodal hearing fitting project  
 Role: PI

Advanced Bionics Research Board 08/19/2021 – present  
 Provided research interface for cochlear implant and software for testing neural activity of animal model  
 Role: PI

### **Intramural**

Start-up funds at Baylor University 8/17/2018 – 8/31/2023

- **Pending**

### **Extramural**

NIH NIDCD R01 9/1/2024 – 8/31/2028

"Spectral processing for speech enhancement in bimodal hearing"

The objective of this proposal is to enhance bimodal benefit in speech perception by (1) adjusting the channel outputs of cochlear implant, based on cochlear implant frequency importance functions (FIFs) and the channel outputs of both cochlear implant and hearing aid, based on bimodal FIFs and (2) reducing the spectral mismatches within the cochlear implant ear and between the cochlear implant and hearing aid ears.

Role: PI

### **Intramural**

- **Completed Support:**

### Extramural

Korea Institute for Advancement of Technology (\$20K) 07/01/2021-6/30/2022

*“Developing auditory training game for children with cochlear implants”*

The goal of the proposal is to develop an app which allowed children (3-6 years old) with cochlear implants to receive self-controlled auditory training.

Role: Consultant

American Hearing Research Foundation (\$20K) 01/01/2015-3/31/2017

*“Characterizing Detection Ability of a Hearing Aid on Spectral, Temporal, and Speech Signal Processing in Bimodal Hearing”*

The goal of the proposal is to create profiles of hearing aids' (HA) capability to detect spectral and temporal cues and to evaluate how the ability of the HA to detect psychoacoustic cues influences bimodal benefit in speech perception

Role: PI

The CH Foundation (\$53K) 01/01/2016-3/31/2017

*“Characterizing the Effect of Acupuncture Treatment on Tinnitus”*

The goal of the proposal is to characterize the effects of acupuncture treatment on subjective idiopathic tinnitus at molecular, genetic, and perceptual levels.

Role: PI

National Organization for Hearing Research Foundation (\$20K) 06/2013-05/31/2015

*“Electric-Acoustic Stimulation and Its Cortical Representation”*

The goal of this project is to identify the relevant speech cues needed to optimize electric-acoustic stimulation benefit in consonant recognition and to determine the efficiency of detecting and integrating spectro-temporal information processed by a cochlear implant and a hearing aid.

Role: PI

Etymotic Research Foundation, Chicago IL (\$5K) 06/01/2003-05/31/2004

*“SNR loss and consonant perception”*

The goal of this study was to compare difference in signal-to-noise in consonant recognition between normal controls and hearing-impaired listeners.

Role: PI

### Intramural

Undergraduate Research and Scholarly Achievement (URSA) Travel (\$1250), Baylor University  
03/27-3/30/2019

Seed Grant, School of Health Profession, TTUHSC (\$10k) 02/01/2017-8/31/2018

*“Novel Physiological-based Technique for Alleviation of Noise-Induced Hearing Loss and Noise-Induced Tinnitus”*

The goal of the project is to test the hypothesis that by treating the physiological cause of noise-induced hearing loss (NIHL) and noise-induced tinnitus (NIT), hearing thresholds will be enhanced, and tinnitus will be suppressed. By transposing frequency bands, we aim to allow for a healthier portion of the hair cells to transmit better spectral cues to the higher auditory pathways in order to improve spectral processing and suppress NIT.

Role: PI

Pilot Grant, School of Health Profession, TTUHSC (\$10K) 02/01/2017-8/31/2018

*“Establishing Efficient Selection Model for Improved Success in Bimodal Hearing”*

The goal of the proposal is to establish an efficient selection model that determines which ear of BHA users should continue the use of a HA for improved postoperative BM benefit in speech perception.

Role: PI

School of Medicine, TTUHSC (\$23K) 01/01/2016-12/31/2016

*“Neural responses at primary auditory cortex in response to spectral and temporal signals processed by a speech processor”*

The goal of the proposal is to test the hypothesis that direct electrical stimulation via information transmitted from an external speech processor can generate specific spectral and temporal responses at A1 in an animal model (rats).

Role: PI

School of Health Profession, TTUHSC (\$16K) 08/01/2016-12/31/2016

This grant provides fund for purchasing the research ABR machines.

Role: PI

School of Health Profession, TTUHSC (\$10k) 12/01/2014-09/20/2016

*“Alleviating Noise-Induced Tinnitus by Transposing Cochlear Frequency Response”*

The goal of the proposal is to determine the effect of the cognitive factors on the outcome in the use of hearing devices for pediatric population.

Role: PI

School of Health Profession, TTUHSC (\$10K) 10/01/2014-05/01/2016

*“Characterizing Detection and Fusion Process in Electric Acoustic Stimulation”*

The goal of the proposal is to create profiles of hearing aids’ (HA) capability to detect spectral and temporal cues and to evaluate how the ability of the HA to detect psychoacoustic cues influences bimodal benefit in speech perception.

Role: PI

□ **Extramural Grant submitted, but not funded:**

1/2019– 12/2019

American Speech-Language-Hearing Foundation

*“Enhancement of Speech Understanding in Electric and Acoustic Hearing”*

The objective of this proposal is to improve consonant perception by optimizing specific ranges of spectro-temporal ranges for individuals with bimodal hearing.

Role: PI

8/2018– 12/2018

NIH NIDCD R01

*“Optimizing Integration Process in Electric Acoustic Stimulation”*

The objective of this proposal is to improve speech perception by identifying and optimizing crucial spectro-temporal cues and facilitating integration in bimodal hearing and electric acoustic stimulation hearing.

Role: PI

2017 – 7/2018

- Office of Secretary of Defense (\$150k)  
*“Active noise control for small caliber ammunition”*  
The goal of the proposal is to research current state of the art of Active Noise Cancellation and see if it can be applied in minimizing the acoustics of a small caliber firearm when it is fired.  
Role: consultant
- The CH Foundation (\$36K)  
*“Establishing Efficient Ear Selection Model for Improved Success in Bimodal Hearing”*  
The goal of the proposal is to establish efficient ear selection model; providing a direct, and evidence-based selection option for clinicians and significantly improved bimodal benefit in speech perception.  
Role: PI
- NIH NIDCD R15 (\$300K)  
*“Establishing Efficient Selection Model for Improved Success in Bimodal Hearing”*

The goal of the proposal is to evaluate the feasibility of using psychoacoustic measures in creating profiles of hearing aids' (HA) capabilities in bimodal hearing to detect temporal, spectral, and combined cues and to evaluate how the ability of the HA in detecting psychoacoustic cues is related with bimodal benefit in speech perception.

Role: PI

- American Tinnitus Association (\$50K)  
*"Effects of Acupuncture Treatment on Changes in Auditory Functions and Peripheral Biomarkers in Patients with Tinnitus"*  
The goal of the proposal is to characterize the effects of acupuncture treatment on tinnitus at molecular, genetic, and perceptual levels.  
Role: PI
- Hearing Health Foundation (\$30K)  
*"Effects of Acupuncture Treatment on Changes in Auditory Functions and Peripheral Biomarkers in Patients with Tinnitus"*  
The goal of the proposal is to characterize the effects of acupuncture treatment on tinnitus at molecular, genetic, and perceptual levels.  
Role: PI
- NIH NIDCD R15 (\$300K) 04/01/2018 – 03/31/2021  
*"Establishing Efficient Selection Model for Improved Success in Bimodal Hearing"*  
The goal of the proposal is to evaluate the feasibility of using psychoacoustic measures in creating profiles of hearing aids' (HA) capabilities in bimodal hearing to detect temporal, spectral, and combined cues and to evaluate how the ability of the HA in detecting psychoacoustic cues is related with bimodal benefit in speech perception.  
Role: PI
- Pre-application to Department of Defense (2M)  
*"Novel Physiological-Based Technique for Alleviation of Noise-Induced Hearing Loss and Noise-Induced Tinnitus"* Role: PI, Not invited
- NIH NIDCD R21 (\$275K) 09/01/2017-08/31/2019  
*"Neural responses at primary auditory cortex in response to spectral and temporal signals processed by a speech processor"*  
The goal of the proposal is to test the hypothesis that direct electrical stimulation via information transmitted from an external speech processor can generate specific spectral and temporal responses at A1 in an animal model.  
Role: PI
- Ministry of Trade, Industry and Energy of Korea (\$30K) 06/01/2017-11/30/2017  
*"Developing Self-Training Software Using Virtual Reality for People with Speech and Hearing Disorders"*  
The goal of the proposal is to develop self-training software for people with speech disorder or hearing loss using virtual reality.  
Role: Co-PI
- ASHA Foundation (\$25k) 01/01/2018-12/31/2018  
*"Novel Physiological-based Technique for Alleviation of Noise-Induced Hearing Loss"*  
The goal of the project is to proof the concept frequency transposing on basilar membrane for noise-induced hearing loss by constructing math modeling.  
Role: PI
- ASHA Foundation (\$75K) 01/01/2018-12/31/2018  
*"Determining Feasibility of an Auditory Cortex Implants"*  
The goal of the proposal is to test the hypothesis that direct electrical stimulation via information transmitted from an external speech processor can generate specific spectral and temporal responses at A1 in an animal model  
Role: PI
- American Hearing Research Foundation (\$40K) 01/01/2018 – 12/31/2019  
*"Enhancing Integration between Electric and Acoustic Ears for Greater Bimodal Benefit"*  
The goal of the proposal is to determine how integration influences spectral, temporal, and speech perception in bimodal hearing and to maximize bimodal benefit in speech perception by facilitating integration of auditory information processed by a hearing aid and a cochlear implant.

- Role: PI
- Capita Foundation (\$10K) 01/01/2018-12/31/2018  
*"Developing a new neural recording approach for an Auditory Cortex Implants"*  
 The goal of the proposal is to develop a new neural recording technique for better neural signal detection at A1 in an animal model  
 Role: PI

7/01/2015-06/31/2016

- NIH NIDCD R15  
*"Relationship Between Detection Ability in Acoustic Hearing and High Successful Use of Bimodal Hearing"*, Role: PI
- ASHA Foundation independent research project:  
*"Bimodal detection ability and speech perception"*, Role: PI
- Action on Hearing Loss, UK- Translational Grant  
*"Developing a novel treatment for people with noise-induced tinnitus"*, Role: PI
- Burroughs Wellcome Fund (traveling grant to learn new skills)  
*"Neural responses at primary auditory cortex to spectral and temporal signals processed by speech processor"*, Role: PI
- Hearing Health Foundation  
*"Determining Feasibility of an Auditory Cortex Implant"*, Role: PI
- South Plains Foundation  
*"Novel Physiological-based Technique for Alleviation of Noise-Induced Hearing Loss and Noise-Induced Tinnitus"*, Role: PI

7/01/2014-06/31/2015

- NIH NIDCD R15  
*"Relationship Between Detection Ability in Acoustic Hearing and High Successful Use of Bimodal Hearing"*, Role: PI.
- Hearing Health Foundation  
*"Alleviating Noise-Induced Tinnitus by Transposing Cochlear Frequency Response"*, Role: PI
- Action on Hearing Loss, UK-International Project Grant  
*"Novel Physiological-Based Technique for Alleviation of Noise-Induced Hearing Loss and Noise-Induced Tinnitus"*, Role: PI
- Pre-application to Department of Defense  
*"Acupuncture Treatment for Tinnitus and Sleep Disorders"*, Role: PI
- Pre-application to Department of Defense  
*"Neurobiological Mechanisms of the Emotional Aspects of Tinnitus"*, Role: PI, Not invited.

7/01/2013-06/31/2014

- ASHA independent research project  
*"Developing efficient selection criteria for high success in bimodal benefit in speech perception"*,  
 Role: PI
- NIH NIDCD R15  
*"Relationship Between Detection Ability in Acoustic Hearing and High Successful Use of Bimodal Hearing"*, Role: PI
- Full application to Department of Defense  
*"Characterizing the Effect of Acupuncture Treatment on TBI patients with Tinnitus"*, Role: PI
- Action on Hearing Loss, UK – Flexi Grant  
*"Acupuncture and Tinnitus Treatment"*, Role: PI

7/01/2012-06/31/2013

- Korean-American Scientists and Engineers Association, Young Investigator Grant  
*"Spectral and temporal processing and brain waves in bimodal hearing"*, Role: PI

**RESEARCH EXPERIENCE**

- Research Associate, Cincinnati Children's Hospital Medical Center, OH, 12/2012 – 12/2013  
Work on examining relationship between electrophysiological measures (EEG) and speech perception ability in adults and children with cochlear implants and hearing aids.
- Postdoctoral fellow, House Ear Institute, Los Angeles, CA, 06/2008 – 12/2012  
Worked on evaluating the ability of cochlear implant users for sentence understanding and localization in noise. Worked on investigating the perceptual mechanism of speech processing in bilateral and bimodal (combined electric and acoustic stimulation) cochlear implant users. Worked on predicting speech intelligibility in real-world noise environments for functional hearing screening.
- Research Assistant, Human Speech Recognition Group, UIUC, IL, 01/2006 – 05/2007  
Worked with Dr. Jont Allen and Dr. David Gooler to study the consonant confusion patterns with NAL-R gain rule as a function of SNR in hearing impairment. Worked with Dr. Jont Allen to study the relationship between SNR Loss (inability to discriminate sound in noise) and the perceptual confusions on consonant discriminations with no gain as a function of SNR in hearing impairment.
- Research Assistant, UIUC, IL, 07/2002-12/2005  
Worked with Dr. David Gooler developing a research design with Matlab and stimulus generation circuits with TDT system III to study the effects of temporal three features (duration, interpulse interval, and interpulse gap) on the detection of increment and decrements in intensity. Worked with Dr. David Gooler developing a research design with Matlab to simulate cochlear implant 26-channel noise vocoder speech processor and to measure the perceptual confusion patterns on consonant recognition in normal hearing. Worked with Dr. David Gooler to test the relationship between the variability in performance on the consonant discrimination and the ability to process the temporal information with the 26 - channel noise vocoder as a function of SNR and of LPF in hearing impairment.
- Research Assistant and programmer, Indiana University-Bloomington, IN, 08/2001-06/2002  
Worked with Dr. Diane Kewley-Port and programmed the procedures to test vowel identification and discrimination with Matlab User Graphical Interface and TDT system II codes.
- Research Assistant, Texas A & M University-Kingsville, TX, 08/1995-12/1996  
Assisted Dr. Sung-won Park in a research project in the area of speech and image compression, and the adaptive noise control within multi-noise sources funded by the NSF. Simulated the multi-noise canceller I designed with noise references recorded from various spots within the vehicle.
- Senior project, Seoul National University of Technology, Seoul, Korea, 12/1992  
Designed a digital thermostat using CMOS logic circuit and interfaced with 16-bit personal computer.

## PUBLICATIONS

1. **Yoon Y.S.** & Straw S. (in press). Interactions between slopes of residual hearing and frequency maps in simulated bimodal and electric acoustic stimulation hearing. *Journal of Speech, Language, and Hearing Research*.
2. **Yoon Y.S.** & Morgan D (2022). Dichotic spectral integration range for consonant recognition in normal hearing listeners. *Front Psychol.* [10.3389/fpsyg.2022.1009463](https://doi.org/10.3389/fpsyg.2022.1009463)
3. **Yoon Y.S.**, Jaisinghani P., & Goldsworthy R. (2022). Effect of realistic test conditions on perception of speech, music, and binaural cues in normal hearing listeners. *Am J Audiol.* [10.1044/2022\\_AJA-22-00143](https://doi.org/10.1044/2022_AJA-22-00143)
4. **Yoon Y.S.** & Drew C (2022). Effects of the intensified frequency and time ranges on consonant enhancement in bilateral cochlear implant and hearing aid users. *Front Psychol.* [10.3389/fpsyg.2022.918914](https://doi.org/10.3389/fpsyg.2022.918914)
5. **Yoon Y.S.** (2021). Effect of the target and conflicting frequency and time ranges on consonant enhancement in normal-hearing listeners. *Front Psycho.* [10.3389/fpsyg.2021.733100](https://doi.org/10.3389/fpsyg.2021.733100)

6. **Yoon Y.S.**, Whitaker, G., & Lee, Yune S. (2021). Effects of the configuration of hearing loss on consonant perception between simulated bimodal and electric acoustic stimulation hearing. *J Am Acad Audiol.* 32(8):521-527. [10.1055/s-0041-1731699](https://doi.org/10.1055/s-0041-1731699)
7. **Yoon Y.S.**, Boren C.M., Diaz BM. (2021), "Effect of realistic test conditions on spectral and temporal processing in normal hearing listeners" *Am J Audiol*, 30(1), 160-169. [10.1044/2020\\_AJA-20-00120](https://doi.org/10.1044/2020_AJA-20-00120)
8. **Yoon Y.S.**, Mills I., Toliver B., Park C., Whitaker G., Drew C. (2021), "Comparisons in frequency difference limens between sequential and simultaneous listening conditions in normal-hearing listeners" *Am J Audiol*, 30(2), 266-274. [10.1044/2021\\_AJA-20-00134](https://doi.org/10.1044/2021_AJA-20-00134)
9. **Yoon Y.S.**, Gooler D.M., Gho J.S (2019). "Perceptual Confusions for Temporally Smoothed Envelope of Consonants in Normal Hearing Listeners" *Clinical Archives of Communication Disorders*, 4(2): 113-127. <https://doi.org/10.21849/cacd.2019.00045>
10. **Yoon Y.S.**, Shin, Y.R., Kim J.M., Coltisor A., Chun Y.M (2019) "Optimizing Maps for Electric Acoustic Stimulation Users" *Cochlear Implants International*. [10.1080/14670100.2019.1572939](https://doi.org/10.1080/14670100.2019.1572939)
11. **Yoon Y.S.**, Riley B., Patel Hanna, Frost A., Fillmore P., Gifford R., Hansen J. (2019) "Enhancement of Consonant Recognition in Bimodal and Normal Hearing Listeners" *Annals of Otology, Rhinology & Laryngology*, 128(6S):139S-145S. [10.1177/0003489419832625](https://doi.org/10.1177/0003489419832625)
12. **Yoon Y.S.**, Hwang B.G., Coltisor A. (2018) Commentary: "Comparison of the long-term effect of positioning the cathode in tDCS in tinnitus patients" *Front. Aging Neurosci.* [10.3389/fnagi.2017.00443](https://doi.org/10.3389/fnagi.2017.00443)
13. **Yoon Y.S.**, Gooler, D.M., Allen, J.B., Gho, J.S. (2017) "Comparisons in consonant confusions with and without gain for the hearing-impaired listeners" *Clinical Archives of Communication Disorders*, 2(1): 69-84. <https://doi.org/10.21849/cacd.2017.00017>
14. **Yoon Y.S.**, Liu A., Shin Y.R., Gho, J.S., Hicks, C., Fu Q.J., and Coltisor, A. (2016). "Effect of channel interaction and presentation level on speech recognition in simulated bilateral cochlear implants" *Clinical Archives of Communication Disorders*, 1(1): 77-86. <https://doi.org/10.21849/cacd.2016.00031>
15. **Yoon Y.S.**, Shin Y.R., Gho J.S., and Fu Q.J. (2015). "Bimodal benefit depends on the performance difference between a cochlear Implant and a hearing aid" *Cochlear Implants International*. 16(3):159-167. [10.1179/1754762814Y.0000000101](https://doi.org/10.1179/1754762814Y.0000000101)
16. **Yoon Y.S.**, Shin Y.R., and Fu Q.J. (2013). "Binaural benefits with and without a bilateral spectral mismatch in acoustic simulations of cochlear implant processing" *Ear Hear.* 34(3):273-279. [10.1097/AUD.0b013e31826709e8](https://doi.org/10.1097/AUD.0b013e31826709e8)
17. **Yoon Y.S.**, Shin Y.R., and Fu Q.J. (2012) "Clinical selection criteria for a second cochlear implant for bimodal listeners" *Otol Neurotol.* 33(7):1161-1168. [10.1097/MAO.0b013e318259b8c0](https://doi.org/10.1097/MAO.0b013e318259b8c0)
18. **Yoon Y.S.**, Li Y.X. and Fu Q.J. (2012), "Speech recognition and acoustic features in combined electric and acoustic stimulation", *J Speech Lang Hear Res*, 55(1):105-124. [10.1044/1092-4388\(2011/10-0325\)](https://doi.org/10.1044/1092-4388(2011/10-0325))  
*\*This article was selected for the 2012 Editors' Award for the Hearing section of the Journal of Speech, Language, and Hearing Research.*
19. **Yoon Y.S.**, Li Y.X., Kang H. Y., and Fu Q.J. (2011), "The relationship between binaural benefit and difference in unilateral speech recognition performance for bilateral cochlear implant users" *Int J Audiol.*, 50(8):554-565. [10.3109/14992027.2011.580785](https://doi.org/10.3109/14992027.2011.580785)
20. **Yoon Y.S.**, Liu A. and Fu Q.J. (2011), "Binaural benefit for speech recognition with spectral mismatch across ears in simulated electric hearing" *J. Acoust. Soc. Am.* *EL.*, 130 (2), EL94-EL100. [10.1121/1.3606460](https://doi.org/10.1121/1.3606460)



21. **Yoon Y.S.**, Allen, B.J., and Gooler D. M. (2012), "Relationship between consonant recognition and hearing threshold" *J Speech Lang Hear Res*, 55(2):460-473. [10.1044/1092-4388\(2011/10-0239\)](https://doi.org/10.1044/1092-4388(2011/10-0239)
22. Aronoff J.M., **Yoon Y.S.**, and Soli S.D. (2010), "Stratification of American hearing aid users by age and audiometric characteristics: A method for representative sampling" *Ear Hear*, 31(3): 401-406. [10.1097/AUD.0b013e3181cda9ee](https://doi.org/10.1097/AUD.0b013e3181cda9ee)
23. Aronoff J.M., **Yoon Y.S.**, Freed D.J., Vermiglio A.J., Ivan Pal and Soli S.D. (2010), "The use of interaural time and level difference cues by bilateral cochlear implant users" *J. Acoust. Soc. Am.*, 127 (3), EL87-E92. [10.1121/1.3298451](https://doi.org/10.1121/1.3298451)
24. Phatak S., **Yoon Y.S.**, Gooler D. M., Allen, B.J. (2009), "Consonant recognition loss in hearing impaired listeners" *J. Acoust. Soc. Am.*, 126 (5), 2683-2694. [10.1121/1.3238257](https://doi.org/10.1121/1.3238257)

**Manuscripts in Review:**

1. **Yoon Y.S.**, Whitaker R. & White N. Frequency importance function in simulated bimodal hearing. *Ear and Hearing*
2. Shin, Y.R., Jaisinghani P., **Yoon Y.S.** & Chun, Y.M. Impact of age at the implantation and experience of amplification use on sound localization of children with bilateral implants. *Otology & Neurotology*.

**INVITED TALKS**

1. Department of Electrical & Computer Engineering at Baylor University, "Cochlear implant Technology and Its Pros and Cons", November 7, 2022.
2. Department of Psychology & Neuroscience at Baylor University, "Hearing Assistive Technologies and ACI", February 15, 2019.
3. Department of Electrical and Computer Engineering at The University of Texas at Dallas, "Tonotopic Map at A1", October 5-6, 2017.
4. The Center of Excellence for Translational Neuroscience and Therapeutics, Texas Tech University Health Sciences Center, "Determining Feasibility of an Auditory Cortex Implant", April 27, 2017.
5. Soree Ear Clinic, Seoul, South Korea, "Novel Physiological-based Technique for Alleviation of Noise-Induced Hearing Loss and Noise-Induced Tinnitus", June 6, 2016 invited by Dr. Youree Shin.
6. Graduate School of Public Health, Hallym University, Chuncheon, South Korea, "Interdisciplinary Research in Speech and Hearing Sciences", June 16, 2016 invited by Dr. Samuel Ko.
7. School of Electrical Engineering, Biomedical Engineering, University of Ulsan, Ulsan, South Korea, "Neural responses at primary auditory cortex to spectral and temporal signals processed by speech processor", June 10, 2016 invited by Dr. Jihwan Woo.
8. Department of Robotics Engineering, Daegu Gyeongbuk Institute of Science & Technology (DGIST), Daegu, South Korea, "Neural responses at primary auditory cortex to spectral and temporal signals processed by speech processor", June 8, 2016 invited by Dr. Hongsoo Choi.
9. Seoul National University, Department of Otorhinolaryngology, Seoul, South Korea, "New mapping procedure in EAS", June 23, 2014 invited by Seung-Ha Oh.

10. Hallym University of Graduate Studies, Seoul, South Korea, "Detection and fusion process in bimodal hearing", June 14, 2014 invited by Dr. Lee Junghak.
11. Soree Ear Clinic, Seoul, South Korea, "Binaural benefit in speech perception with bimodal and bilateral cochlear implant users, June 12, 2014 invited by Dr. Youree Shin.
12. Samsung Medical Center, Seoul, South Korea, "Optimizing fusion process in bimodal hearing", June 10, 2014 invited by Dr. Sung Hwa Hong.
13. New York Eye and Ear Infirmary, New York City, NY, "Dynamic spatial hearing with binaural amplification in reverberation", 2013 invited by Ana Kim
14. Communication Sciences Research Center, Cincinnati, Cincinnati Children's Hospital Medical Center, "Underlying mechanism for benefit in speech perception in bilateral cochlear implants", October 15, 2012 invited by Andrew Dimitrijevic
15. Virginia Merrill Bloedel Hearing Research Center, Seattle, University of Washington, "A search for binaural benefit mechanism in cochlear implants", August 1, 2012 invited by Jay Rubinstein
16. Department of Communication Sciences and Disorders, East Carolina University, "Two ears are better than one: a search for the underlying mechanism for electric-acoustic stimulation ", March 31, 2012 invited by Andrew Stuart
17. Hearing and Speech Research Laboratory, Irvine, University of California, "Perceptual confusions for temporally smoothed envelope of syllables in noise", July 31, 2007 invited by Fan-Gang Zeng
18. Department of Otolaryngology/HNS, Chapel Hill, University of North Carolina, "Perceptual confusions for temporally smoothed envelope of syllables in noise", July 17, 2007 invited by Joseph Hall
19. Department of Communication Sciences and Disorders, Columbia, University of South Carolina, "Perceptual confusions for temporally smoothed envelope of syllables in noise", June 21, 2007 invited by Eric W. Healy
20. Army Audiology and Speech Center, Walter Reed Army Medical Center, Washington D.C. "Comparison of information extracted by normal hearing and hearing-impaired listeners from temporally smeared envelopes of syllables in noise", Feb., 2006 invited by Ken W. Grant

## **PRESENTATIONS**

1. Straw S., Haynes A., Drew C., Whitaker G., Yoon Y.S. (2022). Interactions between slopes of residual hearing and frequency maps in simulated bimodal hearing and electric acoustic stimulation. International Hearing Aid Conference, Lake Tahoe, CA, August 10-14.
2. Whitaker R., White N., Drew C., Whitaker G., Yoon Y.S. (2022). Frequency importance function in simulated bimodal and electric acoustic stimulation hearing. International Hearing Aid Conference, Lake Tahoe, CA, August 10-14.
3. Karnik T., Dukes S., Drew C., Whitaker G., Yoon Y.S. (2022). Comparing effects of frequency maps between bimodal and electric acoustic stimulation hearing. American Academy of Audiology, St. Louis, MO, March 31-April 3.
4. Watkins L., Oitzman M., Drew C., Whitaker G. Yoon Y.S. (2022). Frequency importance function in simulated bimodal and electric acoustic stimulation hearing. Associate for Research in Otolaryngology (Virtually administered due to COVID-19), Feb. 5-9.

5. Bertino S., Watkins L., Drew C., Watkins L., Whitaker G., Yoon Y.S. (2022). Interactions between slopes of residual hearing and frequency maps in simulated bimodal hearing. Associate for Research in Otolaryngology (Virtually administered due to COVID-19), Feb. 5-9.
6. Mills I., Yoon Y.S. (2020, April). Effect of target and conflicting spectral and temporal ranges on consonant enhancement in bimodal hearing. Proposal accepted at the Annual Convention of the American Academy of Audiology, New Orleans, LA (Convention canceled due to COVID-19).
7. Boren C., Yoon Y.S. (2020, April). Spectral integration and interference in bimodal cochlear implant users. Proposal accepted at the Annual Convention of the American Academy of Audiology, New Orleans, LA (Convention canceled due to COVID-19).
8. Mills I., Yoon Y.S. (2020, November). Consonant recognition enhancement by removing conflicting acoustic cues in bimodal hearing. Proposal accepted at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA (Convention canceled due to COVID-19).  
*\*This abstract was selected for the Meritorious Poster Submission at 2020 ASHA Convention.*
9. Boren C., Yoon Y.S. (2020, November). Spectral and temporal integration in listeners with normal hearing. Proposal accepted at the Annual Convention of the American Speech-Language-Hearing Association, San Diego, CA (Convention canceled due to COVID-19).
10. Courtney Hammit, Marcelina M. Gutierrez, Yang-soo Yoon (2019). "Spectral Integration in Normal Hearing Listeners", American Academy of Audiology, Columbus, OH, March 27-30.
11. Alyssa A. Van Vossen, Marcelina M. Gutierrez, Yang-soo Yoon (2019). "Effects of Frequency Maps on Consonant Perception Enhancement in Electric Acoustic Stimulation", American Academy of Audiology, Columbus, OH, March 27-30.  
*\*This article was selected for the Student Poster Scholar Award at 2019 AAA Convention.*
12. Kylie Robinson, Marcelina M. Gutierrez, Yang-soo Yoon (2019). "Consonant Recognition Enhancement Using Innovative Signal Processing in Bimodal Hearing", American Academy of Audiology, Columbus, OH, March 27-30.  
*\*This article was selected for the Student Poster Scholar Award at 2019 AAA Convention.*
13. Amy E. Woelfel, Alyssa A. Van Vossen, Courtney Hammit, Marcelina M. Gutierrez, Yang-soo Yoon (2019). "Comparisons in Temporal Integration Between Sequential and Dichotic Listening Conditions", American Academy of Audiology, Columbus, OH, March 27-30.
14. Sophie D. Suri, Marcelina M. Gutierrez, Yang-soo Yoon (2019). "Binaural Frequency Discrimination: Implication for Bimodal and Electric Acoustic Stimulation Users", American Academy of Audiology, Columbus, OH, March 27-30.  
*\*This article was selected for the Outstanding Poster at 2019 Baylor Undergraduate Scholar Week.*
15. Rebekah Havens, Marcelina Gutierrez, You-Ree Shin, Yang-soo Yoon (2019). "Spectral Integration in Normal Hearing Listeners", Associate for Research in Otolaryngology, Baltimore, MD, Feb. 9-13.
16. Marcelina Gutierrez, Rebekah Havens, You-Ree Shin, Yang-soo Yoon (2019). "Temporal Integration in Normal Hearing Individuals", Associate for Research in Otolaryngology, Baltimore, MD, Feb. 9-13.
17. You-Ree Shin, Marcelina Gutierrez, Rebekah Havens, Yang-soo Yoon (2019). "Comparisons in Consonant recognition Enhancement with and without Conflicting Acoustic Cues", Associate for Research in Otolaryngology, Baltimore, MD, Feb. 9-13.
18. Marcelina Gutierrez, Rebekah Havens, & Yang-Soo Yoon (2018). Consonant Recognition Improvement by Enhancing Target Cues in Normal and Bimodal Cochlear Implant Users", Texas Academy of Audiology. Woodlands, TX. October 18-20, 2018.

19. Marcelina Gutierrez, Rebekah Havens, & Yang-Soo Yoon (2018). Consonant Recognition Improvement by Enhancing Target Cues and Removing Conflicting Cues in Normal Auditory System”, Center of Excellence for Translational Neuroscience and Therapeutics, Texas Tech University Health Sciences Center. Lubbock, TX. April 12, 2018.  
*\*This article was selected for the first place in the clinical research category at 4<sup>th</sup> Center of Excellence for Translational Neuroscience and Therapeutics Symposium at Texas Tech University Health Sciences Center.*
20. Strickland Kevin, Mahebar A, Tindell R, & Yoon Y.S. (2018) “Spectral and Temporal Processing in Realistic Listening Environment”, Student Research Week, Texas Tech University Health Sciences Center, March 21-23.
21. Brianna Diaz, Domonique Valle, Laura Griffith, Faith Gentry, & Abby Sears, Hemachandra Reddy, Yang-Soo Yoon (2018). “Acupuncture treatment for tinnitus”, American Academy of Audiology, April 18-21, 2018.
22. Brittney Kinikin & Yang-soo Yoon (2018). “Bimodal Benefit in Consonant Recognition is Dependent on the Ability to Integrate Acoustic Cues Across Ears”, American Academy of Audiology, April 18-21, 2018.
23. Faith Gentry, Brittney Kinikin, & Yang-soo Yoon (2018). “Comparisons in Integration Efficiency Between Bimodal and Normal Hearing Individuals”, American Academy of Audiology, April 18-21, 2018.
24. Abby Sears, Brittney Kinikin, & Yang-soo Yoon (2018). “Enhancement in Consonant Recognition for Bilateral Hearing-Impaired Listeners Using Novel Signal Processing”, American Academy of Audiology, April 18-21, 2018.
25. Yang-soo Yoon, Brianna Diaz, D. Valle, L. Griffith, F. Gentry, A. Sears, H. Reddy. R. Effects of Acupuncture for the Treatment of Tinnitus. Endowed Lecture Series. Texas Tech University Health Sciences Center. Lubbock, TX. September 13, 2017.
26. Yang-Soo Yoon, Hemachandra Reddy, Domonique Valle, Brianna Diaz, Laura Bushong, Faith Gentry, & Abby Sears (2017). “Effects of Acupuncture Treatment for Tinnitus on Objective and Subjective Test Measure”, Military Health System Research Symposium of Department of Defense, Kissimmee, FL, August 27-30.
27. Allison Coltisor, Taylor Myers, Guangchen Ji, Volker Neugebauer, & Yang-soo Yoon (2017). “Tonotopic Neural Responses to Acoustic and Electric Stimuli in the Rat’s Primary Auditory Cortex”, Conference on Implantable Auditory Prostheses, Lake Tahoe, CA, July 16-21.
28. Faith Gentry, Abby Sears, Domonique Valle, Brianna Diaz, Laura Griffith, Hemachandra Reddy & Yang-soo Yoon (2017). “Effects of Acupuncture Treatment on Tinnitus”, The Center of Excellence for Translational Neuroscience and Therapeutics, Texas Tech University Health Sciences Center, April 27.  
*\*This article was selected for the first place in the clinical research category at 3<sup>rd</sup> Center of Excellence for Translational Neuroscience and Therapeutics Symposium at Texas Tech University Health Sciences Center.*
29. Brittney Kinikin, Brooke Ponder, Ashley Zamarripa & Yang-soo Yoon (2017). “Consonant Recognition Enhancement Using Three-Dimensional Deep Search Signal Processing”, The Center of Excellence for Translational Neuroscience and Therapeutics, Texas Tech University Health Sciences Center, April 27.
30. Allison Coltisor, Taylor Myers, Guangchen Ji, Volker Neugebauer, & Yang-soo Yoon (2017). “Responses to Acoustic and Vcoded Stimuli in the Rat Primary Auditory Cortex”, Student Research Week, Texas Tech University Health Sciences Center, March 7-9.  
*\*This article was selected for the first place in the clinical research category at Student Research Week Competition at Texas Tech University Health Sciences Center.*
31. Brittney Kinikin, Brooke Ponder, Domonique Valle, Brianna Diaz, Laura Griffith, Allison Coltisor, & Yang-soo Yoon (2017). “The effect of acupuncture for tinnitus patients on hearing threshold,

pitch and loudness of the tinnitus”, Student Research Week, Texas Tech University Health Sciences Center, March 7-9.

32. Faith Gentry, Abby Sears, Domonique Valle, Brianna Diaz, Laura Griffith, Hemachandra Reddy & Yang-soo Yoon (2017). “Effects of Acupuncture Treatment for Tinnitus on Spectral and Temporal Processing”, Student Research Week, Texas Tech University Health Sciences Center, March 7-9.
33. Patel Henna, Frost A, & Yoon YS (2016). “Bilateral Benefit in Consonant Recognition Using Three Dimensional Deep Search Signal Processing”, American Academy of Audiology, Phoenix, AZ, April 13-15.
34. Frost A, Patel Henna, Yoon YS (2015). “Consonant Perception Enhancement Using Three Dimensional Deep Search Signal Processing in Bilateral Acoustic and Electric Hearing”, Texas Academy of Audiology, Houston, TX October 22-24.
35. Coltisor A, Hall C., & Yoon, YS (2015). “Consonant Perception Enhancement Using Signal Processing In Bimodal Hearing”, Conference on Implantable Auditory Prostheses (CIAP), Lake Tahoe, CA, July 12-17.
36. Hall C., Coltisor A, Yoon, YS (2015). “Finding the Consistent Contributor Leading to Bimodal Benefit”, Conference on Implantable Auditory Prostheses (CIAP), Lake Tahoe, CA, July 12-17.
37. Fowler, C.M., Graham, A., Single, S., Hobson, J., Hall, C., Coltisor A., & Yoon, Y.S. (2015). “Developing Efficiency Criteria for Success in the Use of Bimodal Hearing”, American Academy of Audiology, San Antonio, TX, March 25-28.
38. Hall, C., Coltisor, A., Graham, A., Fowler, C.M., Single, S., Hobson, J., and Yoon, Y.S. (2015). “Correlation Between Psychoacoustic Measures with Speech Perception in Bimodal Hearing”, American Academy of Audiology, San Antonio, TX, March 25-28.
39. Coltisor, A., Hall, C., Graham, A., Fowler, C.M., Single, S., Hobson, J., & Yoon, Y.S. (2015). “Consonant Perception Enhancement Using Signal Processing in Bimodal Hearing”, American Academy of Audiology, San Antonio, TX, March 25-28.  
*\*This article was selected for the Student Research Forum Awards at 2005 AAA Convention.*
40. Fowler, C.M., Graham, A., & Yoon, Y.S. (2014). “Detection and Fusion in Combined Electric and Acoustic Stimulation”, International Hearing Aid Research Conference (IHCON), Lake Tahoe, CA, Aug. 13-17.
41. Yoon, Y.S., Han, J.H., Scott M. Houston, L, Grienwald, J., Samy, R., Zeng, F.G., & Dimitrijevic, A. (2014) “Acoustic change complex to amplitude modulation in cochlear implant subjects”, Associate for Research in Otolaryngology, San Diego, CA, Feb. 22-26.
42. Dimitrijevic, A, Han, J., Yoon, Y. S, Scott, M., Houston, L., Grienwald, J., Samy, R., & Zeng, F. G. (2013) “Acoustic change complex in cochlear implant subjects: amplitude modulation and frequency change”, International Evoked Response Audiometry Study Group Biennial Symposium, New Orleans, LA, June 9-13.
43. Yoon Y.S and Fu Q.J (2012) “Perceptual Confusions in Combined Electric and Acoustic Stimulation (EAS)”, International Hearing Aid Research Conference (IHCON), Lake Tahoe, CA, Aug. 8-12.
44. Amano-Kusumoto A., Soli S.D., Yoon Y.S., Pal I (2012) “Predicting speech intelligibility in real-world noise environments for screening of functional hearing ability”, International Hearing Aid Research Conference (IHCON), Lake Tahoe, CA, Aug. 8-12.

45. Yoon Y.S (2011). "Two ears are better than one ear: a search for binaural benefit mechanism in electric hearing", Korean-American Scientists and Engineers Association, 21st South-West Regional Technical Conference, Norwalk, CA, Feb. 5.
46. Yoon Y.S., Shin Y. R., & Fu Q.J. (2011) "Enhancement and interference in combined electric and acoustic stimulation for consonant recognition", Asia Pacific Symposium on Cochlear Implants and Related Sciences, Dae-Gu, South Korea, October 25-28.
47. Yoon Y.S., Shin Y.R., & Fu Q.J. (2011) "Effect of Matched and Mismatched Spectral Resolution, Channel Interaction, and Loudness on Speech Recognition with Acoustic Simulation of Bilateral Cochlear Implant", Asia Pacific Symposium on Cochlear Implants and Related Sciences, Dae-Gu, South Korea, October 25-28.
48. Shin Y.R., Yoon Y.S., & Fu Q.J. (2011) "Binaural benefits with and without a bilateral mismatch in acoustic simulations of cochlear implant processing", Asia Pacific Symposium on Cochlear Implants and Related Sciences, Dae-Gu, South Korea, October 25-28.
49. Shin Y.R., Yoon Y.S., & Fu Q.J. (2011) "Training Effect on the Binaural Benefit in Speech Understanding with Bilateral Mismatched Simulations of Cochlear Implant Processing", Asia Pacific Symposium on Cochlear Implants and Related Sciences, Dae-Gu, South Korea, October 25-28.
50. Yoon Y.S., Shin Y.R., & Fu Q.J. (2011) "Consonant Recognition in Quiet and in Noise with  
51. Combined Electric and Acoustic Stimulation", Conference on Implantable Auditory Prostheses, Pacific Grove, CA, July 24-29.
52. Shin Y.R., Yoon Y.S., & Fu Q.J. (2011) "Binaural benefits with and without a bilateral mismatch in acoustic simulations of cochlear implant processing", Conference on Implantable Auditory Prostheses, Pacific Grove, CA, July 24-29.
53. Yoon Y.S., Li Y.X, & Fu Q.J. (2010) "The benefits and perceptual mechanism by bilateral and bimodal cochlear implant users", Associate for Research in Otolaryngology, Anaheim, CA, Feb. 6-10.
54. Aronoff J., Yoon, Y.S., & Soli S.D. (2010) "The role of interaural time and level cues in spatial release from masking and localization abilities for cochlear implant users", Associate for Research in  
55. Otolaryngology, Anaheim, CA, Feb. 6-10.
56. Aronoff J., Yoon, Y.S., & Soli S.D. (2009) "A stratified sampling plan for hearing aid research "American Academy of Audiology, Dallas, TX, April. 1-4
57. Yoon Y.S., Allen, B.J., & Gooler M.D. (2008) "The comparisons in consonant loss profiles and in perceptual confusions between gained and no-gained conditions in hearing impairment as a function of signal-to-noise ratio" International Hearing Aid Research Conference (IHCON), Lake Tahoe, CA, Aug. 13-17.
58. Phatak S.A, Yoon Y.S, & Allen, B.J. (2007) Consonant profiles for Individual Hearing-Impaired Listeners under speech-weighted noise", Aging and Speech Communication, Bloomington, IN, October 7-10.
59. Phatak S.A, Yoon Y.S, & Allen, B.J. (2007) "Consonant profiles for Individual Hearing-Impaired Listeners", The American Audiology Society, Scottsdale, AZ, March 4-6.
60. Yoon Y.S., Gooler M.D., & Allen, B.J. (2006) "The effect of noise vocoder signal processing on consonant recognition in normal hearing and hearing-impaired listeners in noise" International Hearing Aid Research Conference (IHCON), Lake Tahoe, CA, Aug. 16-20.

61. Yoon Y.S., Allen, B.J., & Gooler M.D. (2006) "Signal-to-noise ratio loss and consonant perception in hearing impairment under noisy environment" International Hearing Aid Research Conference (IHCON), Lake Tahoe, CA, Aug. 16-20.
62. Yoon Y.S., Gooler M.D., & Allen, B.J. (2006) "Comparison of information extracted by normal hearing and hearing-impaired listeners from temporally smeared envelopes of syllables in noise", Associate for Research in Otolaryngology, Baltimore, MD, Feb. 5-9.
63. Yoon Y.S., Gooler M.D., & Allen, B.J. (2005) "Consonant confusions for temporally smeared envelope of syllables in noise", J. Acoust. Soc. Am. 118, 1931, Minneapolis, MN, Oct. 17-21.
64. Yoon Y.S. & Allen B.J. (2005). "Signal-to-Noise Ratio Loss and Consonant Confusions", J. Acoust. Soc. Am. 117, 2608, Vancouver, Canada, May 16-20.
65. Yoon Y.S. & Gooler M.D. (2005). "Recognition of temporally smeared time-intensity envelope of speech as a function of Signal-to-Noise Ratio", Associate for Research in Otolaryngology, New Orleans, LA, Feb. 19-24.
66. Yoon Y.S. & Gooler M.D. (2003). "The effects of three temporal cues on the detection of increments and decrements in intensity", J. Acoust. Soc. Am. 113, 2225, Nashville, TN, May

## **TEACHING EXPERINECE**

*At Baylor University, Waco, TX Since Fall 2018*

- For Ph.D. Program
  - MATLAB Programming 1 (3 cr)
- For Master's program
  - Methods in Graduate Study (3 cr)
- For Undergraduate program
  - Introduction to Aural Rehabilitation (3 cr)
  - Applied Research in Communication Sciences and Disorders (1 cr)
  - Advanced Readings & Research for honor students (independent study: 1 cr)
  - Honor Thesis Project (1 cr)

*At Texas Tech University Health Sciences Center, Lubbock, TX Spring 2014 – Spring 2018*

- For Ph.D. program
  - Research Design and Grant Writing for Private and Federal Scholarship Application (independent study: 3 cr)
  - Advanced Psychoacoustics: Designing Theoretical Experiments Using Psychoacoustic Approaches (independent study: 3 cr)
- For AUD program
  - Clinical Research for Capstone Projects (1 cr)
  - Amplification and Its Technical Components (3 cr)
  - Psychoacoustics and Auditory Perception (3 cr)
- For Undergraduate program
  - Hearing Science (3 cr)
  - Neuroscience of Speech, Language, & Hearing Disorders (4 cr)

*At University of Illinois – Urbana/Champaign, IL between 2003-2005*

- Teaching Assistant for a UG course, SHR 199 "Hearing Health for the Individual and Society"

## **EMPLOYMENT EXPERIENCE**

- Library Research Assistant, Liberty University, VA, Jan. – Aug., 1998

Designed the main library web pages using HTML, JavaScript, Common Gage Interface, animation software, and image and media edition software. Developed the multimedia courseware: Acquiring, Edition, Managing, and Choosing an Output Package for Delivery.

- ❑ English Instructor, AnSan English Institute, AnSan, Korea, Dec. 1996 – Dec. 1997  
Taught Spoken English, Grammar, and listening comprehension to Korean middle and high school students.
- ❑ Korean Instructor, Korean Language School, Corpus Christi, TX, Feb. 1995 – Dec. 1996  
Taught Korean to English speaking children.
- ❑ English Instructor, Mokdong English Institute, Seoul, Korea, Jan. – Dec. 1993  
Taught English grammar to middle and high school students.
- ❑ Internship, JoongAng Electronics, Seoul, Korea, Aug. – Dec. 1991  
Designed the circuits for new cordless phones and interphones.

#### **EDITORIAL BOARD**

- ❑ 2020-2022: Editorial Board Member for the Journal of Speech, Language, and Hearing Research
- ❑ 2018-present: Associate Editor for Clinical Archives of Communication Disorders
- ❑ 2016-present: Review Editor for Frontiers in Aging Neuroscience

#### **AD HOC FEDERAL GRANT REVIEWER**

- ❑ National Institute on Disability, Independent Living, and Rehabilitation Research Small Business Innovation Research Phase I, March 5-7, 2019.
- ❑ NIH National Institute on Deafness and Other Communication Disorders, AUD Study Section, October 7-8, 2019.

#### **PROFESSIONAL ORGANIZATION AND CONFERENCE SERVICES**

- ❑ 2021-present: Served on the Research Initiatives Committee for American Academy of Audiology (AAA) for a term 10/1/21-9/30/24
- ❑ 2021-present: Served on the International Subcommittee for AAA for a term 10/1/21-9/30/24
- ❑ 2019-present: Served a subcommittee member for AAA Research Podiums and Student Research Forum.
- ❑ 2019-present: Served as a reviewer for American Speech-Language Hearing Association (ASHA)'s Audiology/Hearing Science Research Travel Award.
- ❑ 2019-present: Served as a reviewer for ASHA Foundation's graduate scholarship.
- ❑ August 2018 – present: served as a mentor for American Speech-Language Hearing Association (ASHA) Mentoring Academic research Career (MARC) program
- ❑ 2014-present: Member of Korea Technology Assistant Group for Korea Institute for Advancement of Technology
- ❑ 2014-present: Advisory board member, LingoAny (<https://en.lingoany.com/>), Seoul, South Korea.

#### **AD HOC JOURNAL REVIEWER**

- ❑ Reviewer for IEEE Transaction on Biomedical Engineering
- ❑ Reviewer for IEEE International Conferences on Acoustics, Speech, and Signal Processing (ICASSP) 2015
- ❑ Reviewer for Frontiers Aging Neuroscience
- ❑ Reviewer for Frontiers Neuroscience- Auditory Cognitive Neuroscience
- ❑ Reviewer for Neurology
- ❑ Reviewer for Journal of Acoustical Society of America and Express Letter
- ❑ Reviewer for Ear & Hearing
- ❑ Reviewer for Hearing Research
- ❑ Reviewer for Journal of Speech Language Haring Research
- ❑ Reviewer for Otology and Neurotology
- ❑ Reviewer for Annals of Otology, Rhinology & Laryngology



- ❑ Reviewer for Audiology and Neurotology
- ❑ Reviewer for Multimedia Tools and Applications
- ❑ Reviewer for Journal of American Academy of Audiology
- ❑ Reviewer for Canadian Medical Association Journal
- ❑ Reviewer for Clinical Archives of Communication Disorders
- ❑ Reviewer for Acta Oto-Laryngologica

## **DEPARTMENTAL AND UNIVERSITY SERVICES**

### Departmental:

- ❑ 2022-present: served on Global mission committee at Baylor.
- ❑ 2022-present: served on Scholarship committee at Baylor.
- ❑ 2019-2021: served on Ph.D. proposal subcommittee at Baylor.
- ❑ 2019-2021: served on Research Enhancement Committee at Baylor.
- ❑ 2016-2017: served on the Ph.D. student recruitment committee at TTUHSC.
- ❑ 2015-2017: served on a financial assistance committee at TTUHSC.
- ❑ 2015-2017: served on the Ph.D. committee at TTUHSC.

### College/University:

- ❑ 2022-present: served on Faculty Development committee at Baylor.
- ❑ 2019-present: served as the Selection Committee for Outstanding Professors at Baylor.
- ❑ 2019-present: served as the RCHHS Curriculum Committee at Baylor.
- ❑ 2019: served as a judge for the 2019 URSA Scholar Week at Baylor.
- ❑ 2019: served as a volunteer for the 2019 Baylor University move-in day.
- ❑ 2018: served as a volunteer for the 2018 Baylor University move-in day.
- ❑ 2017: served as a research advisor on the 2016 summer research internship program for high-school students at TTUHSC.
- ❑ 2017: served as a faculty member for the 2017 Office of Research Science Camp for high school students at TTUHSC.
- ❑ 2017: served as a Dean's reprehensive for the Ph.D. defense in Rehabilitation Sciences at TTUHSC.
- ❑ 2017: served as the TTUHSC 2018 Faculty Awards Committee at TTUHSC.
- ❑ 2016-2018: served as a judge for the 2nd The Center of Excellence for Translational Neuroscience and Therapeutics Symposium at TTUHSC.
- ❑ 2014-2017: served as a judge on the Graduate Student Research Week Presentation at TTUHSC.

## **COMMUNITY, CHURCH, & MILITARY SERVICES**

- ❑ 2016 – 2017: Referee for Upward Soccer, Lubbock, TX.
- ❑ 2014 – 2016: Served as a deacon for Lubbock Korean Baptist Church, Lubbock, TX.
- ❑ 2010 – 2012: Served as a table tennis coach for elementary students, Buena Park, CA.
- ❑ 2009 – 2012: Served as a deacon and a Sunday school teacher for men's group at Jesus Community Church, Fullerton, CA.
- ❑ 2002 – 2006: Served as a deacon and a Sunday school teacher for undergraduate students at Korean Presbyterian Church of Urbana-Champaign, Urbana, IL.
- ❑ 2000 – 2001: Served as a director for undergraduate group at Korean Presbyterian Church of Purdue, West Lafayette, IN.
- ❑ 1998 – 2001: Served as a Sunday school teacher for undergraduate students at Korean Presbyterian Church of Purdue, West Lafayette, IN.
- ❑ Korean Army, Seoul, Korea, 08/1987-02/1989

## **MEMBERSHIP OF PROFESSIONAL SOCIETIES**

- ❑ Member, Acoustical Society of America since 2001
- ❑ Associate Member, The Association for Research in Otolaryngology since 2005
- ❑ Korean-American Scientists and Engineers Association since 2011
- ❑ Affiliate Member, The American Academy of Audiology since 2014