

Amplification & Communication Research Laboratory

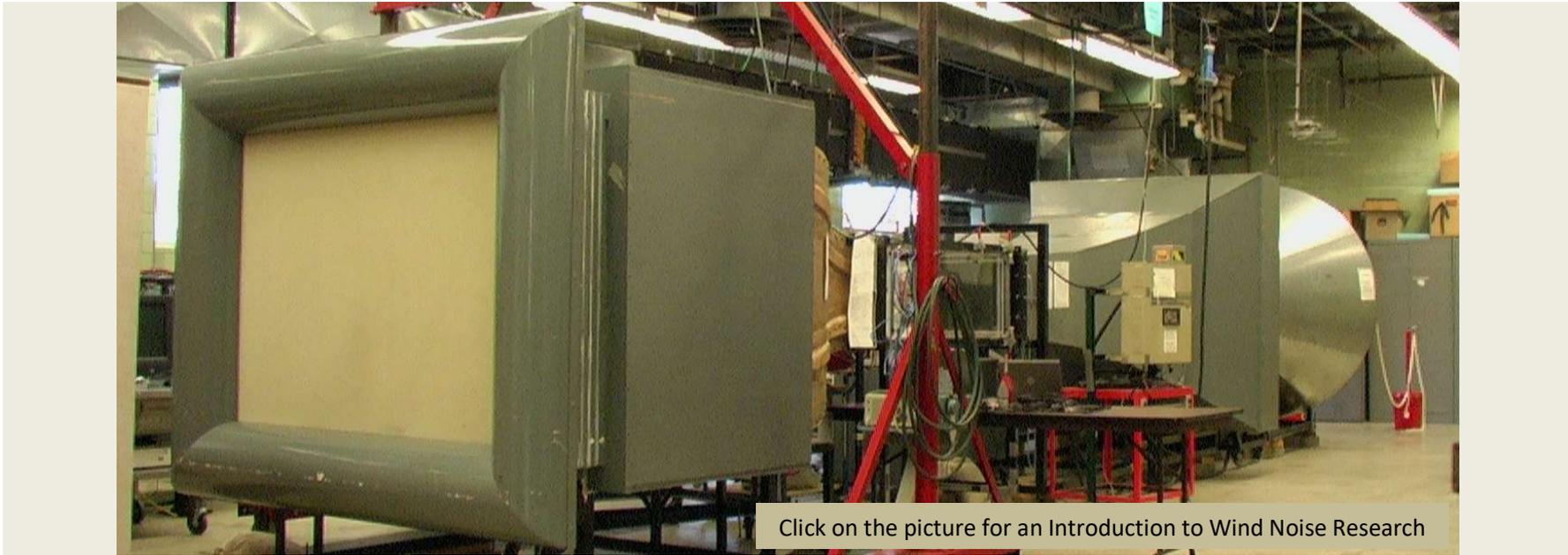
Dr. Chung has three main areas of research:

I. Optimization of hearing aid, cochlear implant and hearing protector performance



All hearing device users face similar challenges: Understanding speech in noise and listening comfort. Dr. Chung enjoys examining the effective signal processing strategies and technologies to enhance the performance of hearing instruments, especially those that can improve their communication abilities and quality of lives. She has been working on utilizing hearing aid front-end technologies to enhance cochlear implant performance since 2003, and has a patent on the subject with Dr. Fangang Zeng at University of California, Irvine.

II. Wind noise characteristics and reduction strategies



Wind noise can be debilitating for hearing device users. Dr. Chung has been systematically studying wind noise patterns in hearing aids with different characteristics (e.g., microphone modes, styles, vent options) in order to derive wind noise reduction strategies. These strategies can be readily adopted in hearing devices to enhance user performances.

III. Humanitarian Research and Services

Dr. Chung takes students to a different country/governing region to provide free humanitarian hearing services to unserved or underserved populations. The hearing status of the tested populations is published in professional magazines and peer-review journals so that more people would be aware of the great demand for hearing services in different parts of the world.

The long term goals are:

1. To facilitate academic and clinical exchanges
2. To deliver hearing services to underprivileged populations

3. To provide participants with cultural immersion opportunities
4. To advocate for better hearing services for underserved populations around the world

Information on past destinations and daily activities can be found on:

- 2016 Australia <http://www.blurb.com/b/7654018-heart-of-hearing-2016-humanitarian-trip-to-austral>
 2014 Cambodia https://www.researchgate.net/publication/279204508_2014_NIU_HeartofHearing_Cambodia_Scrapbook
 2013 China https://www.researchgate.net/publication/308883457_Chung_2013_HeartofHearing_China_Trip
 2012 Brazil https://www.researchgate.net/publication/255964780_2012HeartofHearing_BrazilTrip
 2011 Hong Kong https://www.researchgate.net/publication/255964836_2011HeartofHearing_HongKongTrip
 2010 Taiwan https://www.researchgate.net/publication/255964932_2010HeartofHearing_TaiwanTrip

Click on the books to find out more about the audiology education, hearing healthcare system, and our clinical findings in each visited countries/governing region:

