



# Center for Robust Speech Systems Robust Speech Technologies Lab

Erik Jonsson School of Engineering & Computer Science  
University of Texas at Dallas, Texas, USA

## POST-DOCTORAL POSITION

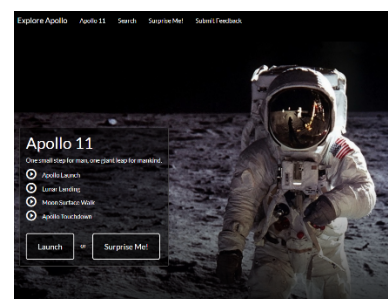
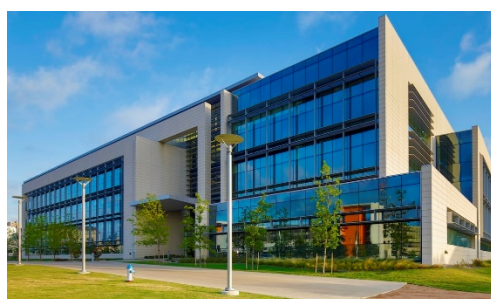
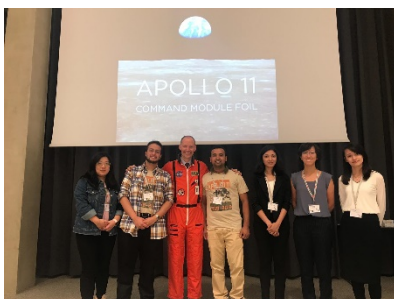
Developing robust speech and language technologies (SLT) for naturalistic audio is the most challenging topic in the broader class of machine learning problems. CRSS-RSTL stands at the forefront of this initiative by making available the largest (150,000 hours) publicly available naturalistic corpus in the world. The FEARLESS STEPS corpus is the collection of multi-speaker time synchronized multi-channel audio from all of NASA's 12 Apollo Manned Missions. Deployment of such ambitious corpora requires development of state-of-the-art support infrastructure using multiple technologies working synchronously to provide meaningful information to researchers from the science, technology, historical archives, and educational communities. To this end, we are seeking a **post-doctoral researcher** in the area of **speech and language processing and machine learning**. The researcher will collaboratively aid in the development of speech, natural language, and spoken dialog systems for noisy multi-channel audio streams. Overseeing digitization of analog tapes, community outreach and engagement, and assisting in cutting edge SLT research are also important tasks for the project.



- Founded in 1969, The University of Texas at Dallas is ranked No. 1 in the United States for universities less than 50 years old (Young University Rankings report from Times Higher Education).
- UT-Dallas is the youngest institution and third overall in Texas to be recognized for the state's National Research University Fund as a 'Tier One' University.
- UT-Dallas is located in the Dallas-Ft. Worth (DFW) Metroplex, home to the telecom corridor which consists of over 800 high tech corporations, the second largest concentration of high tech corporations in the United States.
- Companies such as Texas Instruments, AT&T, Cisco Systems, Lockheed-Martin, Samsung, Raytheon, HP, Toyota, and others have major research groups in the Dallas Metroplex area.



Those interested should send an email with their resume and areas of interest to [John.Hansen@utdallas.edu](mailto:John.Hansen@utdallas.edu). More information can be found on our website: CRSS-RSTLab (Robust Speech Technologies Lab) at <https://crss.utdallas.edu/>



# FEARLESS STEPS CORPUS



PRESENTED BY  
*ROBUST SPEECH TECHNOLOGIES LAB (CRSS),  
THE UNIVERSITY OF TEXAS, AT DALLAS*

## An Audio Corpus of the complete Apollo-11 Mission

**TO BE RELEASED AT  
INTERSPEECH 2018**

**19000 HOURS OF  
MASSIVE NATURALISTIC  
MULTI-CHANNEL DATA**

NASA's Apollo program stands as one of mankind's greatest achievements in the 20th century. The CRSS Lab successfully digitized the mission audio tapes, and are now making the data publicly available. Intended to advance the Speech and Language Research Community



### About the Corpus:

Full Corpus: Mission Control, Air-To-Ground, all Back-Room communications, IRIG time for 30 synch. channels.

A 100 Hour Sub-Challenge Corpus will be Released with 5 time-synchronized Challenge Tasks established.

Pipeline Diarization Transcripts will be provided in addition to the Voice Activity and ASR Transcripts for the Corpus

The Challenge Corpus will be Open Source, Freely Distributed (with a small fee for Complete Corpus Delivery on Hard Drive)

### The Challenge Tasks:

1. Automatic Speech Recognition (ASR)
2. Keyword Spotting and Joint Topic-Sentiment Detection
3. Speaker Identification (SID)
4. Speaker Diarization
5. Voice Activity Detection (VAD)