

## ISCA Distinguished Lecturer Tour (2015-2016)

### Interim Report

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Since its creation in 2006 by The International Speech Communication Association (ISCA), the Distinguished Lecturer (DL) program has appointed typically two lecturers every year to introduce and disseminate the latest advances in speech communication research. Details of the program can be found at <http://www.isca-speech.org/iscaweb/index.php/distinguished-lecturers>

I was appointed as an ISCA DL to serve during the period April 1, 2015 to December 31, 2016. In this period I have engaged in ISCA DL tours at universities and institutes in a number of locations across the world; in addition to the official ISCA DLs I have taken the opportunity to introduce ISCA DLs at other locations where I have given invited lectures notably in North America and Europe. Finally, I am also scheduled to do ISCA tours in Taiwan, and related invited lecture tours in Australia and New Zealand before the conclusion of my assignment. Below is a summary of my tours thus far.

#### **Turkey: May 2015**

My first ISCA DL was at Koç University (College of Engineering) in İstanbul, Turkey hosted by Professor Engin Erzin on May 22, 2015. The topic of my lecture was “**Behavioral Signal Processing: Enabling human-centered behavioral informatics**”.

In the same tour, I gave my second ISCA DL at Bogazici University on a speech science centered topic “**Measuring and Using Speech Production Information: Some new opportunities**” on May 25, 2016, hosted by Professor Murat Saraclar.

In both these visits, there were meetings and roundtables with students and faculty.

#### **Germany: May 2015**

Leveraging my presence in Berlin for IS2015 TPC meeting, I was invited to present a distinguished lecture at the Technical University of Berlin on “**Behavioral Signal Processing**”. My host was Professor Giuseppe Caire. The talk was delivered on May 18, 2015.

#### **China: October 2015**

My first ISCA lecture in China was at the University of Science and Technology of China (USTC) in Hefei China. It was hosted by the National Engineering Lab for Speech and Language Information Processing (NELSLIP) which is one of the few national research platforms on speech technology in China. My host was Professor Zhen-Hua Ling. After giving a lecture on October 28<sup>th</sup> on “**Behavioral Signal Processing: Enabling human-centered behavioral informatics**”, I had discussions and meetings with various students and faculty. Later, I also visited iFlytek a spin-off company from our lab and has become the largest speech company in

China now. I met with the researchers there working on several areas of speech technology from recognition and synthesis to dialog system design for human-robot interactions.

My next IS2016 DL in China was delivered as a Keynote address on the “**Extraction of linguistic and paralinguistic information from audio-visual data**” at O-COCOSDA/CASLRE 2015 which was held on the campus of Shanghai Jiao Tong University, Shanghai. The conference “aims at boosting the research and development in the field of speech databases and speech technology and enthusing the interests towards spoken language research in East and Southeast Asia (<http://www.ococosda2015.org>). My host was Professor Hongwei Ding. As a part of the trip I also visited the laboratory of Professor Kai Yu, and had roundtable meetings with his students both learning and discussing ideas about the various ideas on robust speech processing and speech technology advances. I was accompanied by Professor Ming Li of Sun Yat Sun Univeristy (Guangzhou) during my entire trip who introduced me to other major research activities in China.

### **USA, Cambridge MA: February 2016**

I was invited to give a lecture at MIT CSAIL seminar series; my talk on “**Behavioral Signal Processing: Enabling human-centered behavioral informatics**” was delivered on February 8<sup>th</sup>, and was attended by faculty, students and industry researchers. This “[CSAIL SEMINAR SERIES, organized in cooperation with the Siri team at Apple, invites leading researchers in HLT to give lectures that introduce the fundamentals of spoken language systems, assess the current state of the art, outline challenges, and speculate on how they can be met. Lectures should be accessible to undergraduates with some technical background.]” I used this opportunity to introduce the ISCA Distinguished Lecture Series.

### **Spain, Bilbao and Madrid: June 2016**

I gave a [keynote address Odyssey 2016](#) at the 2016 Odyssey supported by the ISCA Speaker and Language Characterization Special Interest Group (SpLC-SIG), held at Bilbao Spain June 2016. The topic of my address was “[Understanding individual-level speech variability: From novel speech production data to robust speaker recognition](#)”.

I also gave two ISCA DLs in Madrid. The first one was on June 27, 2016 at *Universidad Politécnica de Madrid (UPM)* on [Behavioral Signal Processing: Enabling human-centered behavioral informatics](#). My host was Professor Narciso Garcia.

The second one was at the Universidad Carlos III de Madrid on June 28, 2016 hosted by Professors Drs. Carmen Pelaez Moreno and Ascensión Gallardo-Antolín on the topic of “Behavioral Signal Processing”.

### **India: July 2016**

I gave a series of ISCA DLs in India in July 2016. My first lecture was at the Indian Institute of Technology, Madras on July 1, 2016 hosted by Professors Hema Murthy and S. Umesh. The topic of my talk was “**Understanding individual-level speech variability: From novel speech production data to robust speaker recognition**”. Following my talk I participated in lab meetings and student round tables.

My second ISCA DL trip in India was to the Indian Institute of Science, Bangalore where I delivered a talk on “**Multimodal behavioral informatics for health applications**” on July 7,

2016. I was hosted by Professor Prasanta Kumar Ghosh at IISc. My third talk was delivered at the Indian Institute of Technology, Mumbai on “Behavioral Signal Processing” on July 18, 2016, hosted by Professor Preeti Rao. I delivered my final two lectures under the aegis of ISCA DL at the ISCA supported [Summer School on Advances in Speech and Audio Processing](#) (ASAP-2016) on July 19-20, 2016. It was organized on the campus of Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT) Gandhinagar, India, hosted by Professor Hemant Patil. My first lecture topic was on “**Understanding individual-level speech variability**” while the second one was on “**Multimodal behavioral informatics**”. This school was attended by students and faculty and included other lectures and tutorials, including by PhD students. It offered a rich forum for discussion and exchange of ideas amongst all.

### **Upcoming 2016**

In October, I will be delivering ISCA DLs at the Academia Sinica (Taipei), NTHU (Hsinchu) and a keynote address at ROCLING (Tainan).

I am also scheduled to deliver a 16th Speech Science and Technology Conference (SST2016) in December 2016 (Sydney Australia) and lecture at the University of Auckland, New Zealand.