



EDITORIAL

Welcome to the first ASSTA Newsletter for 2015.

The President's report from Denis highlights some exciting conferences over the last year, the next location of SST and a bid for a big speech conference to come to our shores.

The "News" section of newsletter reports on the many successes of ASSTA members. It is great to share so please send to us any of your good news items. This issue sees the presentation of the ISCA medal to one of our members.

The flyers sections includes announcements from our members and includes the launch of a new journal, Linguistics Vanguard, and a doctoral research scholarship with Macquarie University.

One travel report is included in this newsletter from Qandeel Hussain who attended LabPhon14. So far this year we have handed out 8 travel grant awards all to ICPHS 2015!

Don't forget, when you have news and information to publicise about speech science, this is the place to do it. So keep sending information and updates about your work and upcoming events. Also ASSTA has a number of grant initiatives available to financial members of ASSTA, including travel awards, supporting events and other special initiatives. See here for me details: <http://www.assta.org/?q=assta-grants-program>

Roberto has left the ASSTA executive committee and so we would like to extend our gratitude and thanks to Roberto for his service on the committee. Trent Lewis (that's me) has signed on as the new executive member on the committee.

Trent Lewis

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ASSTA Information

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Contributions

Contributions should be sent to the newsletter team via email as plain text or as an attachment in Rich Text Format (RTF), Microsoft Word (DOC), or PDF.

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President's Report



Four Conferences

SST'14: The 15th Biennial Meeting of ASSTA, the Australasian International Conference on Speech Science and Technology, was held in Christchurch and hosted by the New Zealand Institute for Language Brain and Behaviour. The conference was a great success (as usual). Highlights included three workshops on the opening day by Dr Donald Derrick, Dr Florian Jaeger, and Drs Chigusa Kuramada & Meredith Brown; and a bevy of Plenary Addresses throughout the conference by Prof Gerry Docherty, Prof Gail Gillon, Prof Florian Jaeger, Prof Bastiaan Klein, and Prof Jane Stuart-Smith. In addition there were a total of 50 oral and 17 poster papers on the usual range of ASSTA specialities, topical sessions on PANZE (Phonetics and Phonology of Australian and New Zealand English) and on the ASSTA-supported virtual lab, Alveo, and a meeting of chiefs at the social gathering on the Thursday.

SST'16: The 16th SST in 2016 will be hosted by the MARCS Institute at the University of Western Sydney. This will mark the 30th anniversary of SST conferences, as the first SST was held at ANU in Canberra in 1986. This was one of the first in the world of its type – its international counterparts, the European Conference on Speech Communication &

Technology (Eurospeech) and the International Conference on Spoken Language Processing (ICSLP) (now combined in the form of Interspeech) were first held in 1989 and 1990, respectively. We look forward to seeing you there.

ICPhS'19: This is an International Congress of Phonetic Sciences (ICPhS) year. ICPhS 2015 will be held in Glasgow, August 10-14, and at that meeting a bid for ICPhS 2019 to be held in Melbourne will be presented for consideration. Co-chairs Marija Tabain (LaTrobe University, Melbourne, Australia), Paola Escudero University of Western Sydney, Sydney, Australia), and Sasha Calhoun (Victoria University, Wellington, New Zealand) are currently working hard putting together the document to support this bid. We wish them success and then to supporting preparations for the first ever ICPhS in Australasia!

Interspeech'14: At the Interspeech 2014, the Annual Conference of International Speech Communication Association (ISCA) held in Singapore, September 14-18, Australasia's very own Professor Anne Cutler was named the ISCA 2014 Medallist. The ISCA Medal is awarded for scientific achievement and was presented to Anne at the Interspeech opening ceremony by ISCA President Professor Tanja Schultz. Anne followed this with a superb presentation ISCA Medallist Keynote on 'Learning about speech' to kick off the conference in grand style. Congratulations Anne!

Denis Burnham,
ASSTA President,
April, 2015



2014 ISCA Medallist

ASSTA is pleased to announce that Professor **Anne Cutler** was awarded the ISCA Medal for scientific achievement in 2014 at the opening ceremony of InterSpeech. Photos courtesy of INTERSPEECH 2014 Organizing Committee



ASSTA Exec In Action!

The ASSTA executive hard at work over lunch at Interspeech 2014 in Singapore



Flyers

Linguistics Vanguard

Check out <http://degruyter.com/journals/lingvan> - the new multimodal journal for the language sciences.

Linguistics Vanguard is a channel for high-quality articles and innovative approaches in all major fields of linguistics. This multimodal journal is published solely online and provides an accessible platform supporting both traditional and new kinds of publications.

Linguistics Vanguard seeks to publish concise and up-to-date reports on the state of the art in linguistics as well as cutting-edge research papers. With its topical breadth of coverage and anticipated quick rate of production, it is one of the leading platforms for scientific exchange in linguistics. Full peer review assures quality and enables authors to receive appropriate credit for their work. Its broad theoretical range,

international scope, and diversity of article formats engage students and scholars alike.

The inaugural articles are now freely available at <http://www.degruyter.com/printahead/j/lingvan>.

We are now soliciting new articles for the journal.

All topics within linguistics are welcome. Linguistics Vanguard especially encourages submissions taking advantage of its new multimodal platform designed to integrate interactive content, including audio and video, images, maps, software code, raw data, and any other media that enhances the traditional written word. The target length for contributions is 3,000-4,000 words (plus references and ancillary material).

Potential contributions can be submitted via the ScholarOne system at <https://mc.manuscriptcentral.com/lingvan>.

Flyers

See also De Gruyter Mouton's style sheet
http://www.degruyter.com/staticfiles/pdfs/mouton_journal_stylesheet.pdf.

Questions about possible submissions or other questions about Linguistics Vanguard can be addressed to the Editors-in-Chief or Area Editors at Linguistics.Vanguard degruyter.com <<http://degruyter.com>>

Editors-in-Chief

Alexander Bergs (Osnabrück University, Germany)
Abigail C. Cohn (Cornell University, Ithaca, NY, USA)
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Doctoral Research Scholarship Phonetics & Phonology Macquarie University

Expressions of interest are invited from students interested in pursuing doctoral research on the phonetics and phonology of liquid consonants.

The scholar will be free to work on any topic which addresses the phonology of liquids in Mandarin Chinese, Tamil, Arabic, and Australian English. In addition, the student will collaborate with Dr. Michael Proctor, Assoc/Prof. Felicity Cox, and colleagues in the Dept. of Linguistics, on an experimental program designed to examine production and perception of liquids in more detail, and to explore theoretical issues in liquid phonology and syllable structure.

The project will make innovative use of Electromagnetic Articulography and real-time MRI to examine liquid articulation, and computational phonological modelling software to explore hypotheses about the representation of liquid consonants.

Details and application information:
http://www.hdr.mq.edu.au/information_about/Scholarships/schol-opportunities/hdr_scholarships_domestic_candidates_only

(Ref # 2015144)



ASSTA Research Event

Final Report: Emotion Recognition in the Wild Challenge and Workshop (EmotiW2013) at the ACM International Conference on Multimodal Interaction (ICMI2013)

Sydney, Australia, 9 Dec 2013

<http://cs.anu.edu.au/few/emotiw.html>

Abhinav Dhall (ANU/UC)
Roland Goecke (UC)
Jyoti Joshi (UC)
Michael Wagner (UC)
Tom Gedeon (ANU)

Over the last two decades, the relatively young field of affective computing has become somewhat of a ‘hot area’ with much research being performed in and drawing on, for example, research in speaker characterisation, facial expression analysis, and audio-video speech processing. As approaches have matured, the once seemingly unrealistic goal of emotion recognition (or at least inferring emotions) has become much more realistic.

Traditionally, emotion recognition has been focusing on data collected in very controlled environments, such as research laboratories. Ideally, one would like to collect spontaneous data. However, as anyone working in the AV speech or emotion research community will testify, collecting spontaneous databases in real-world conditions is a difficult and tedious task. For this reason, current spontaneous expression databases have been recorded in laboratory conditions. To overcome this limitation and the lack of available data with real-world or close-to-real-world conditions, the AFEW database (<http://cs.anu.edu.au/few/AFEW.html>) has been recorded, which is a temporal database containing audio and video segments showing close-to-real-world conditions from movies collected by

searching closed caption keywords and then validated by human annotators.

The workshop organisers therefore felt it timely to hold a research workshop in conjunction with a grand challenge at a major international conference – the International Conference on Multimodal Interaction ICMI2013 in Sydney (<http://www.acm.org/icmi/2013/index.php?id=home>). With the support from the ASSTA Research Event grant, this workshop took place on the 9 Dec 2013 at the NICTA ATP Laboratory, where the workshops of the ICMI 2013 conference were held.

The goal of this workshop was not only to bring together Australian-based and international researchers in the area of Audio-Video Affective Computing, but also to set a benchmark for practical emotion recognition in close to real-world environments, so that practitioners in fields such as psychology or HCI can assess, which approaches work best and how reliable such approaches are. The necessity of such a benchmark stems from the observation that approaches reported in the literature to perform very well on laboratory recorded data, do not work well at all in

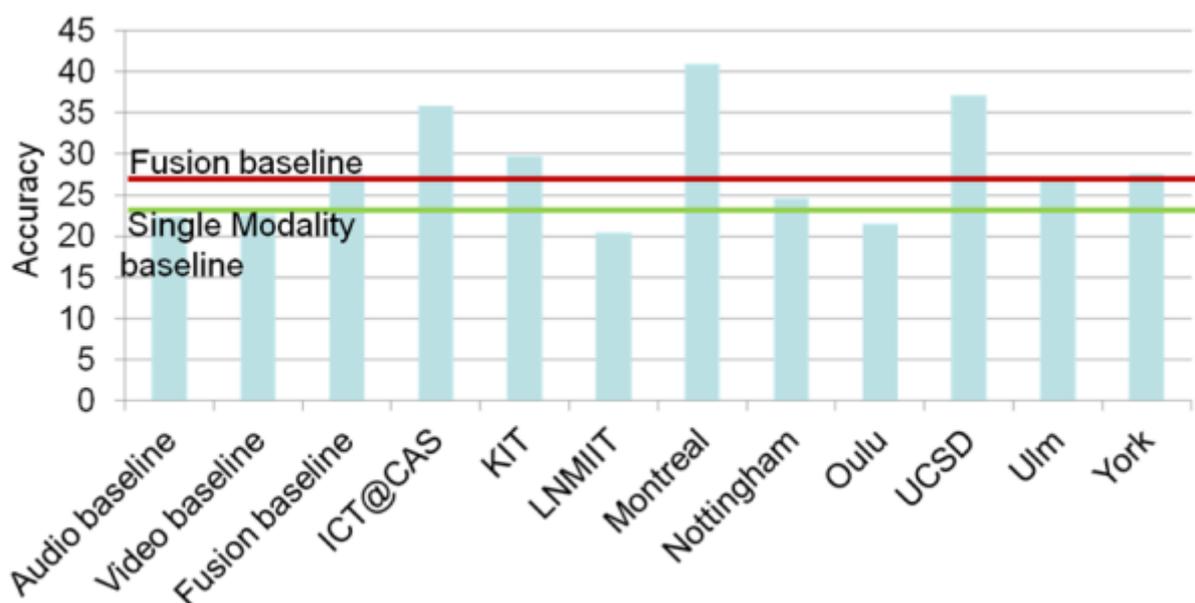
unconstrained situations and environments as typically found in real life, where acoustic noise, illumination, head pose changes etc. affect the accuracy of the approaches.

The challenge part of the workshop had initially 21 teams from Europe, North America, India and China signing up, with eventually 9 teams participating in the challenge and submitting results. Teams had to analyse audio-video data of emotions recorded in realistic conditions. The teams could choose whether they analysed only the audio data, only the video data, or both audio and video data. All submitted results were assessed together, regardless of modality used. The following graph shows a comparison of the teams' performance in the challenge.

The winner of the challenge was the entry "Combining Modality Specific Deep Neural Network Models for Emotion Recognition in Video" by Samira Ebrahimi Kahou, Christopher Pal, Xavier Bouthillier, Pierre Froumenty, Sebastien Jean, Kishore Reddy Konda, Pascal Vincent, Aaron Courville and Yoshua Bengio from Montreal (Canada). Presentations from the top 3 entries can be found at <http://cs.anu.edu.au/few/emotiw.html>.

The workshop was attended by ~50 attendees consisting of both members of the teams participating in the challenge and ICMI conference participants. Keynote presentations were given by Prof Nadia Berthouze (University College London), Prof Jeff Cohn (University of Pittsburgh) and an industry presentation by Dr Gabor Szirtes from RealEyesIT (UK). A total of 14 presentations described the current state of the art in audio-video emotion recognition in realistic conditions. Papers can be found in the ICMI 2013 proceedings (ACM Digital Library). All papers were reviewed by at least two members of the international program committee.

Feedback from attendees suggests that the workshop was well received, which has resulted in a second EmotiW workshop being run in conjunction with the ICMI 2014 conference to be held in Istanbul, Turkey, 12-6 Nov 2014 (<http://icmi.acm.org/2014/>). The ASSTA Research Event Award provided a very important kickstarter for the EmotiW events and the organisers would like to thank the ASSTA Executive very much for supporting the inaugural EmotiW workshop.





ASSTA Research Event

Final Report: Prosody training: How to apply linguistic knowledge to foreign language teaching and learning Brisbane, Australia, 18 April 2015

Chiharu Tsurutani (Griffith University)

2015 ASSTA Research Event Program “Prosody training: How to apply linguistic knowledge to foreign language teaching and learning” was held at Southbank campus, Griffith University in Brisbane on 18 April. All the talks and demonstration were carried out as scheduled in the program (see the program below). University researchers, language practitioners and postgraduate students from various institutions of Australia participated in the workshop for the presentations by guest speakers from Germany and Japan. The workshop provided a great opportunity for both researchers and language practitioners to exchange ideas, and supported high school teachers for their professional development (Participants received a certificate of attendance).

In the morning, Professor Hansjoerg Mixdorff (Germany) started the session with the overview on the current development of CAPT (Computer Assisted pronunciation Training) programs. Professor Mixdorff and the second speaker Professor Yutaka Yamauchi (Japan) presented the program they developed and its effectiveness in classrooms, for Mandarin tones and for English intonation respectively. Although ASR cannot deal with L2 pronunciation with 100% accuracy, it was clear that CAPT programs can give learners

an incentive to practice and improve pronunciation. Following that, Dr Manuel Delicado and Dr William Steed (ANU) reported a method of prosody training in their Spanish classroom, which created a good platform for discussion on effective and pedagogically sound use of CAPT programs in the following discussion forum chaired by Dr Chiharu Tsurutani.

In the afternoon, Professor Nobuaki Minamatsu (Japan) gave a talk about the concept and development of Online Japanese Accent Dictionary (OJAD) and held a training session on practical use of various functions in the OJAD. The OJAD uses the technique of speech synthesis to present the intonation pattern of phrases typed in by users. It was a good example of how a simple technique in speech engineering can help language learning and reminded us of the importance of collaboration between speech engineers and educators. The session was useful not only for Japanese language teachers but also for researchers who have a development of CAPT programs for other languages in mind

We would like to thank the ASSTA and Griffith University for providing the opportunity to hold this workshop.

Prosody training: Program

9:30-9:45	Opening Address (Professor Greer Johnson) Introduction and Information (Dr Chiharu Tsurutani)
9:45 -10:25	<u>Professor Hansjoerg Mixdorff (Beuth University, Germany)</u> “CALLMANDARIN- Results and conclusions from a project for developing a computer-assisted pronunciation training program”
10:40-11:10	<u>Professor Yutaka Yamauchi (Tokyo International University)</u> “Development of Automatic Evaluation Systems of Reading-aloud and Shadowing Performances”
11:10-11:30	<u>Dr Manuel Delicado Cantero and Dr William Steed (ANU)</u> “Instructing rhythm and other suprasegmentals in the Spanish class in Australia”
11:30-12:15	“Prosody training –Present status and future perspective” Moderated Discussion (Chair: Dr Chiharu Tsurutani)
13:00-13:30	<u>Professor Nobuaki Minematsu (The University of Tokyo)</u> “OJAD and its practical use for teaching/learning Japanese prosody”
13:30-15:00 Computer room S02_3.13	Demonstration and hands-on training of OJAD (Online Japanese Accent Dictionary) Accent and intonation of Japanese Sensitivity of native Japanese listeners to accent errors and intonation errors made by learners
15:15-16:45	Let’s use the four functions of OJAD!! Use of OJAD for oral presentation practice





ASSTA Special Research Initiative

Final Report (Linkage Project LP100200142) Making demonstrably valid and reliable forensic voice comparison a practical everyday reality in Australia Geoffrey Stewart Morrison

geoff@forensic-voice-comparison.net

I would like to thank everyone for their support, particularly to the partner organisations [including ASSTA] and their representatives for their financial and in-kind support, without which this project would not have been possible, and particularly to PhD Student Mr Ewald Enzinger and PI Prof Cuiling Zhang who dedicated an enormous amount of time and effort.

PhD Student Enzinger continues to work on his dissertation. We now expect him to submit it in 2015. A major component of his dissertation describes how we perform forensic voice comparison based on the conditions of three actual cases with which we have been involved. Detailed descriptions are provided of how we calculate likelihood ratios using relevant data, quantitative measurements, and statistical models, and test the degree of validity and reliability of the procedures employed under conditions reflecting those of the case under investigation.

I am pleased to announce that the forensic database of voice recordings of 500+ Australian English speakers is now published.

It can be accessed at:

<http://databases.forensic-voice-comparison.net/>

The database was collected by the Forensic Voice Comparison Laboratory, School of Electrical Engineering & Telecommunications, University of New South Wales as part of the Australian Research Council funded Linkage Project on making demonstrably valid and reliable forensic voice comparison a practical everyday reality in Australia. The project was conducted in partnership with: Australian Federal Police, New South Wales Police, Queensland Police, National Institute of Forensic Sciences, **Australasian Speech Sciences and Technology Association**,

Guardia Civil, Universidad Autónoma de Madrid.

The database includes multiple non-contemporaneous recordings of most speakers. Each speaker is recorded in three different speaking styles representative of some common styles found in forensic casework. Recordings are recorded under high-quality conditions and extraneous noises and crosstalk have been manually removed. The high-quality audio can be processed to reflect recording conditions found in forensic casework.

We expect that this will be a useful resource for researchers and forensic practitioners within your organisation, please publicize its availability.

Individuals who wish to access the database are asked to submit a request and will then be issued with a user name and password. The request link is at the website listed above. Access will be granted automatically to members of the research and partner organisations.

We have two manuscripts submitted which make use of the database:

Enzinger, E., Morrison, G. S. (submitted) Mismatched distances from speakers to telephone in a forensic-voice-comparison case.

Enzinger, E., Morrison, G. S., Ochoa, F. (submitted) A demonstration of the application of the new paradigm for the evaluation of forensic evidence under conditions reflecting those of a real forensic-voice-comparison case

[Other outputs included 20 publications, a dozen caseworks, and many workshops]

ASSTA Travel Reports

14th Conference on Laboratory Phonology

July 25-27 2014, Tokyo, Japan

Qandeel Hussain

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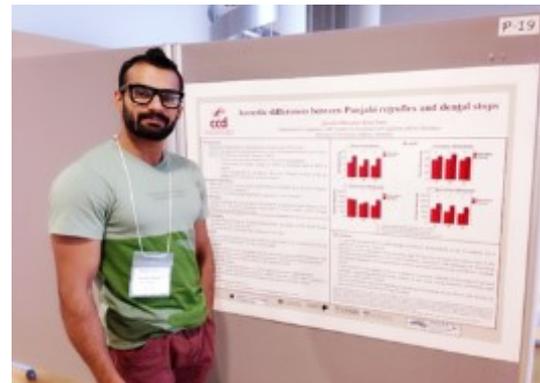
Macquarie University

I attended the 14th Conference on Laboratory Phonology hosted by the National Institute for Japanese Language and Linguistics (NINJAL), Tokyo, Japan. This year, the theme of the conference was *Laboratory Phonology beyond the Laboratory: Quantitative Analyses of Speech Produced outside the Phonetics Laboratory*. The participants presented papers on different topics ranging from fieldwork-based studies, corpus-based approaches to spontaneous speech and acquisition of L1 phonology/prosody. My abstract, *Acoustic differences between coda retroflex and dental stops in Punjabi*, was accepted as a poster presentation. ASSTA financially supported me to attend this conference.

At the opening session of the conference, Professor Robert Ladd and Professor Anne Cutler gave talks about different aspects of Phonology and how can we address different phonological questions by the use of speech corpora. Both talks were very interesting and raised a lot of questions about the current phonological theories. There were other four guest speakers who presented their research related to the theme of the conference.

I always wanted to present my research work at the LabPhon because this is the only conference where I could meet all of the leading phonologists and phoneticians. I presented my poster on the first day of the conference. My poster was mainly based on the acoustic analysis of Punjabi retroflex and dental stops. People were interested in how did I analyse the data and what acoustic measures I used to investigate the contrast between Punjabi

retroflexes and dentals. I received very good feedback from people on my research. As this was my first poster presentation, I really enjoyed talking to people about my research.



After the conference, Dr. Felicitas Kleber and Professor Mary E. Beckman organized a satellite workshop. The title of the workshop was *Gestural coordination within and between speakers in first language phonological acquisition*. This was a one day workshop that covered most of the general aspects of first language phonological acquisition.

Overall, attending the 14th LabPhon conference was a good experience. This was also a great opportunity to meet people who are working in my research area and this opened doors for future collaboration. I was fortunate that I received Travel Award from ASSTA to attend this conference.



Conference Listing

IEEE ICASSP2016: The 41st International Conference on Acoustics, Speech, and Signal Processing

20-25 March 2016

Submission deadline: September 25, 2015

Location: Shanghai, China

<http://icassp2016.org/>

INTERSPEECH 2015: 16th Annual Conference of the International Speech Communication Association

September 6-10, 2015

Submission Deadline: passed

Location: Dresden, Germany

<http://interspeech2015.org>

INTERSPEECH 2016: 17th Annual Conference of the International Speech Communication Association

September 8-12, 2016

Submission Deadline: TBA

Location: San Francisco, USA

<http://www.interspeech2016.org/>

LabPhon15: The 15th Conference on Laboratory Phonology

July 13 - 16, 2016

Submission deadline: TBA

Location: Cornell University, Ithaca, NY USA

<http://www.labphon.org/labphon15/>

17th ACM International Conference on Multimodal Interaction, ICMI 2015

November 9-13, 2014

Submission Deadline: closed

Location: Seattle, USA

<http://icmi.acm.org/2015/>

The 18th International Congress of Phonetic Sciences (ICPhS2015)

Date: Aug 10 2015 — Aug 14, 2015

Submission Deadline: closed

Location: SECC Glasgow, Scotland

<http://www.icphs2015.info/>

TSD 2015 : Text, Speech and Dialogue

Date: Sep 14, 2014 - Sep 17, 2015

Submission Deadline: closed

Location: PLZEŇ, CZECH REPUBLIC

<http://www.kiv.zcu.cz/tsd2015/>

LREC 2016: The 10th edition of the Language Resources and Evaluation Conference

Date: May 26, 2016 - May 27, 2014

Submission Deadline: TBA

Location: Portorož (Slovenia)

<http://www.lrec-conf.org/lrec2016/lrec2016.htm>

ACL 2015: The 53rd Annual Meeting of the Association for Computational Linguistics

July 26, 2015 - July 31, 2015

Submission Deadline: closed

Location: Beijing, China

<http://acl2015.org/>