

EDITORIAL



David Grayden

Welcome to the June 2005 issue of the ASSTA Newsletter.

This issue has some discussions about HCSNet, the ARC Research Network of which ASSTA is a part. We also have a laboratory profile of the MARCS Auditory Laboratories at the University of Western Sydney. Some information about the next Speech Science and Technology conference, SST06, is provided by the chair of the conference, Catherine Watson.

Remember, this newsletter is a forum for you to share information about your travels, research and labs. Please consider submitting something for the next issue. Keep an eye out for a reminder in an ASSTA electronic bulletin.

This newsletter has been designed for publication on the web. Please see the ASSTA homepage for the electronic version. All underlined words are hyperlinks to other pages, email addresses and web pages.

This is the last issue of the newsletter for which I will be the editor. The very able Michael Tyler will take over for the next issue. I am very grateful to him for accepting this position and believe that having a newsletter editor who is not a member of the ASSTA executive may help develop this forum further. Please support Michael by providing articles and discussion pieces for this newsletter.

David Grayden

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The Australian Speech
Science & Technology
Association Incorporated

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Copy should be sent to the editor via email as plain text or as an attachment in Rich Text Format (RTF) or Microsoft Word (DOC).

Send notices on conferences to Lisa Stephenson, and thesis abstracts and book reviews to Johanna Barry.

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PRESIDENT'S REPORT



Denis Burnham

In 1998 ASSTA ran the 5th International Conference on Spoken Language Processing (ICSLP) in Sydney from November 30 through to December 4. Last year ASSTA submitted a preliminary bid for ICSLP 2008, and after a promising response, we submitted a full bid this year. We have just heard that this bid has been successful, and that ASSTA (along with other bodies, such as MARCS Auditory Laboratories) will host the 10th International Conference on Spoken Language Processing in Brisbane in September, 2008.

The timing for this conference is opportune. After the success of ICSLP 1998, a number of people expressed the view that it would be good to hold another speech-oriented conference 10 years hence. This is exactly what will happen. The conference will also fall within the temporal ambit of the ARC Human Communication Science Network (HCSNet), which has funding from 2005 to 2009. As speech is one of the three main areas in the HCSNet, this coincidence will be mutually beneficial for ASSTA, ICSLP 2008, and the HCSNet.

The success of this bid means a number of things. First it confirms what we all know - that ICSLP 1998, chaired by Bruce Millar with a multitude of ASSTA assistants, was a huge success. If ICSLP 1998 had not been as well-run, well-received and enjoyed both academically and socially, then I would not be writing about ICSLP 2008 in this column now.

Second it provides us Australasian speech science and technology researchers with a fine opportunity to showcase our research to the international community, and bring the international community to see us in our natural habitat. There are many ways in which these may be manifested.

- Our PhD, Masters and Honours students will have the opportunity to attend an excellent international conference at minimal cost. I encourage you to think about PhD students who have just started their research work to presenting their *pièce de résistance* at ICSLP 2008.
- We will be able to run special interest seminars within the conference and satellite conferences or workshops at interesting locations before or after the conference. Start thinking now about that special interest that you have and how wonderful it would be to have world leaders in that area presenting about and discussing that issue in the Daintree or Darwin or wherever. Funds are available now to help run events such

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HCSNET

*HCSNet Inauguration:
A Postgraduate Observation*

Dogu Erdener & Jess Hartcher
Marcs Auditory Laboratories,
University of Western Sydney
<http://marcs.uws.edu.au>

In the last days of 2004, the Australian Research Council announced the \$2 million-funding of Human Communication Sciences Network (HCSNet) for a period of five years. This was great news as the funding application for the network was lodged to improve the collaboration amongst human communication researchers working in a range of HSC domains. The HCSNet was launched at a meeting hosted by Marc's Auditory Laboratories at the University of Western Sydney (IWS) on 27 January 2005 by Professor Chung-Tong Wu of the University of Western Sydney. At the inaugural meeting, HCSNet Convenor, Robert Dale, Director of the Centre for Language Technology at Macquarie University, indicated that the aim of the network was to improve existing technologies and develop ideas by means of research collaboration.

Comprising 17 Australian Universities, CSRIO, ASSTA, ALTA, AMPS, and DSTO, the Bionic Ear Institute, and universities and research institutes from Asia, the UK, the USA, Canada, and Europe, HCSNet aims to significantly enhance research partnerships. The network covers numerous communication-related disciplines such as psychology, computing, linguistics, music,

engineering, arts, physics, neuroscience, and sociolinguistics. It is envisaged that researchers will be able to interact with researchers from relatively distant domains of human communication research and develop ideas by discovering interdisciplinary cross-connections. Collaboration is crucial in order to improve the existing technologies and come up with new ideas and concepts, according to Professors Robert Dale, Denis Burnham, and Associate Professor Kate Stevens, who make up the HCSNet Executive Committee. One principle -meta research question that would help development of new technologies is how humans process language while being able to adapt to complex environments that are loaded with information and, in such environments, pick up the correct/intended message.

Before the inaugural meeting, in line with the network's mission, a number of interim work groups were set up. These work groups concern: *Curriculum & Summer School, External Liaison, Data, Student Programs, Publications, Events, and Disciplines*. Each task group has three core members. Following the opening addresses, each task group was joined by a number of other researchers and students from various fields to discuss issues pertaining to the purpose of the respective task group. In addition, a series of brainstorming sessions were also run to identify tentative areas of research collaboration. As we would like to take a slightly more postgraduate student's vantage point, perhaps the *Curriculum & Summer School* and *Student Programs* work

group would be of interest to discuss in this column.

The purpose of the Curriculum & Summer School task group is to identify the areas of need for teaching in interdisciplinary issues both for postgraduate students and researchers who want to acquire new skills and knowledge. This task group is headed by Dr. Mark Wiggins of Marcs Auditory Laboratories, UWS. Student Programs task group was formed in order to determine how students can be encouraged and supported to conduct interdisciplinary research. This group is chaired by Dr. Emery Schubert from the

School of Music & Music Education at UNSW. The good news from the establishment of HCSNet is that postgraduate students will now find a greater number of opportunities to work in an interdisciplinary fashion as well as having increased opportunity to work towards their degrees outside of their own institutions with researchers from different domains of human communication. Perhaps this *student networking* will also pave the way for many students towards prospective employment and research opportunities after the completion of their degrees.

More information regarding HCSNet and working groups can be obtained from <http://www.hcsnet.edu.au>.

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as satellites and workshops via ASSTA, and also via the HCSNet.

- It will provide us with a vehicle for getting top international researchers to Australia...Start thinking now about people you might like to have visit your lab either on a short stay or on sabbatical, and start looking around for funds for this (Linkage International etc).

Finally, the success of this bid means that there is a lot of hard work ahead. However, as you can see from the above, I sincerely think that this work will be well worth the effort in a whole range of ways. I wish to thank the ICSP 2008 Committee-Elect, David Grayden, Michael Wagner, Andy Butcher, John Ingram, Janet Fletcher, and Cathi Best in getting this bid off the ground. Now to see it soar!

Denis Burnham

LAB PROFILES

**What do you do?
Where do you work?
Who do you work with?**

If you would like to profile your lab or research group for the members of ASSTA, please write to me, the Newsletter Editor:

m.tyler@uws.edu.au

CONFERENCE LOG

Please inform Lisa Stephenson (lisa@maccs.mq.edu.au)
about conferences of interest for inclusion in this section.

23-29 Jun 2005
Association for Computational Linguistics
(ACL-05)
Ann Arbor, MI, USA.
<http://www.aclweb.org/acl2005/>

3-5 Jul 2005
5th Pacific Second Language Research
Forum 2006 (PacSLRF06)
Brisbane, Queensland, Australia
<http://www.emsah.uq.edu.au/pacslrf06/>

3-5 Jul 2005
International Conference on Auditory
Display
Limerick, Ireland.
<http://www.icad.org>

10 Jul 2005
The Fourth Workshop on Treebanks and
Linguistic Theories (TLT 2005)
Barcelona, Spain.
<http://clic.fil.ub.es/personal/civit/tlt05cfp.html>

17-22 July 2005
Phonology in the Cognitive Grammar
Worldview. A session of the 9th
International Cognitive Linguistics
Conference
Yonsei University, Seoul, Korea.
<http://www.iclc2005.org/>

23-28 July 2005
10th International Conference on User
Modeling (UM'05)
Edinburgh, Scotland.
<http://gate.ac.uk/conferences/um2005/>

25 July 2005
Workshop on Agent Based System for
Human Learning (ABSHL 2005)
Utrecht, Netherlands.
<http://agents.cs.columbia.edu/abshl/>

27-30 July 2005
PTLC2005 Phonetics Teaching and
Learning Conference
University College London, UK.
<http://www.phon.ucl.ac.uk/home/johnm/ptlc2005/ptlc2005.htm>

30-31 July 2005
The State of the Art in Speech Error
Research (WOTSOTAISER), Workshop at
the LSA Institute
Cambridge, MA, USA.
http://web.mit.edu/lisa2005/events/schutze_ferreira.html

3-6 August, 2005
Annual Conference of the International
Association of Forensic Phonetics and
Acoustics
Marrakesh, Morocco.

10-15 August, 2005
Variation in Speech Production and
Perception Summer School
Palmse, Estonia.
<http://ioc.ee/vispp2005>

25-27 August 2005
Phonological Variation: The Case of
French
Tromsø, Norway.
<http://castl.uit.no>

31 August-3 September 2005
The 6th Pan-European Voice Conference
(PEVoC-6): Mirroring the Voice
The Royal Academy of Music, London, UK.
<http://www.pevoc6.com>

2-4 September 2005
2nd International Speech Therapy
Conference (ISTC-2): 'Aphasia and
Autism-Speech and Thinking Disorders'
Wroclaw, Poland.
[http://www.logopedia.uni.wroc.pl/
konferencja2005/konferencja2005en.html](http://www.logopedia.uni.wroc.pl/konferencja2005/konferencja2005en.html)

4-8 September 2005
INTERSPEECH'2005: 9th Eurospeech
Conference
Centro Cultural de Belem, Lisbon,
Portugal.
<http://www.interspeech2005.org/>

8-9 September 2005
Discourse Prosody Interface 2005 (idp05)
Aix-en-Provence France.
<http://www.lpl.univ-aix.fr/~prodige/idp05>

10-12 September 2005
Disfluency in Spontaneous Speech
(DiSS).An ISCA Tutorial and Research
Workshop.
Aix-en-Provence, France.
<http://www.up.univ-mrs.fr/delic/Diss05>

12-14 September 2005
UK Language Variation & Change
conference (UKLVC5)
University of Aberdeen, Scotland.
<http://www.abdn.ac.uk/langling/uklvc5/>

19-23 September 2005
Speech Analysis, Synthesis and
Recognition: Applications of Phonetic
Research
Krakow, Poland.
[http://www.staff.amu.edu.pl/~fonetyka/
call2005.html](http://www.staff.amu.edu.pl/~fonetyka/call2005.html)

29-30 September 2005
4th International EPG Symposium: New
Developments in Electropalatography
Edinburgh, Scotland.
[http://www.qmuc.ac.uk/ssrc/conf/
epg4_2005/](http://www.qmuc.ac.uk/ssrc/conf/epg4_2005/)

10-12 Oct 2005
13th Annual Workshop of the SIG
Adaptivity and User Modeling in
Interactive Systems of the German
Informatics Society (ABIS 2005)
Saabrücken, Germany.
<http://w5.cs.uni-sb.de/abis05/>

11-13 Oct 2005
The Second International Joint Conference
on Natural Language Processing
(IJCNLP-05)
Jeju, Korea.
<http://www.afnlp.org/IJCNLP05/>

13-15 October 2005
Conference on Turbulences
Zentrum fuer Allgemeine
Sprachwissenschaft, Berlin.
<http://www.zas.gwz-berlin.de/turbulences>

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LABORATORY PROFILE

*MARCS Auditory Laboratories,
University of Western Sydney*

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MARCS Auditory Labs at the University of Western Sydney (UWS) was established in 1999, and grew out of pioneering work in obtaining University set-up funds by Associate Professor Kate Stevens. MARCS now consists of Director, Denis Burnham, Deputy Director, Kate Stevens, Chair in Psycholinguistics, Prof Cathi Best, 5 postdoctoral fellows, 8 researchers from university schools (Psychology; Languages and Linguistics; Contemporary Arts (Music), 2 Honorary Adjunct Professors, 3 Honorary Adjunct Fellows; 21 PhD students, 5 laboratory support staff, and 3 administrative support staff. It is situated on the Bankstown (Milperra) campus of UWS and has specialist labs such as infant, music and speech labs, an anechoic chamber, electrophysiological lab, and a movement analysis lab.

MARCS is funded from three different sources: (i) *internally* through the College of Arts Education and Social Sciences, the Office of Research Services, and the Office of the Vice-Chancellor at UWS; *externally* through the Australian Research Council through its Discovery Project, Linkage Project, Linkage International, Linkage Infrastructure and Research Network schemes; US National Institutes of Health; Australian Transport Safety Bureau; American Tinnitus Association; and via

industry through partnerships or research contracts with the Defence Science & Technology Organisation, Eastern Airlines, Federal Aviation Administration, Australia Council, AusDance, the Australian Choreographic Centre, National Acoustic Laboratories, Karitane, Sydney South West Area Health Service, Royal Children's Hospital Melbourne, Australian Caption Centre and the Royal Institute for Deaf and Blind Children.

Researchers in MARCS conduct basic and applied research in four areas: Speech and Language, Music and Movement, Communication and Auditory Processes, Hearing and Hearing Impairment. Examples of MARCS researchers' work in these four follow.

The **Speech and Language** area includes research into infants' and children's speech perception development and its interaction with language acquisition skills (vocabulary, reading, etc.); auditory-visual perception of speech; perceptual and cognitive aspects of second-language acquisition; cross-language studies that contribute to the understanding of basic processes in speech and language development, with special emphasis on the perception and production of speech segments and lexical tone; special speech registers, e.g., infant-, pet-, and foreigner-directed speech; and issues in education and training.

In the **Music and Movement** research area, projects include the investigation of mother-infant and infant-infant communication; development of non-verbal

communication; the aetiology of post-natal depression; the examination of treatments for infant sleeping difficulties, and the use of music therapy for hospitalised infants. In the temporal arts, there are applications in investigations of music perception, gesture in music performance, attentional capture for expressive movement, auditory-visual music cognition, and cognitive aspects of creativity, performance, and audience response in the context of contemporary dance and music.

The **Communication and Auditory Processing** area includes research on auditory perception; auditory memory; room acoustics and perception in reverberant environments (how people suppress room reflections, and modelling these processes); evaluating text-to-speech synthesis systems; development and evaluation of audiovisual decision support systems; development, classification and

perceptual testing of auditory icons and warning signals; analysis of communication and decision-making processes in safety-critical environments; simulated pre-flight decision-making processes; and training and assessment of workplace cognitive skills, particularly in the transport sector.

In the **Hearing and Hearing Impairment** area research methods established by MARCS are applied to more clinical settings including effects of caption rate, text reduction, and reading ability on caption comprehension in Deaf and Hearing Impaired adults and children; hearing aids for infants – investigating the degree and direction of spectral tilt suitable for infant hearing aids; investigating effects of tinnitus on cognitive processes including memory and attention; and training in special aspects of speech perception (e.g., lexical tone) for children and adults fitted with cochlear implants.



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17-19 Oct 2005

10th International Conference on Speech
and Computer (SPECOM 2005)

University of Patras, Greece.

<http://www.specom2005.org>

19-22 October 2005

Sounds of Silence: Empty Elements in
Syntax and Phonology (SOS)

Tilburg, Netherlands.

<http://let.uvt.nl/sos>

23-25 Oct 2005

Workshop on Spatial Language and
Dialogue (WoSLaD)

Delmenhorst, Germany.

<http://www.sfbtr8.uni-bremen.de/>

[WoSLaD/](http://www.sfbtr8.uni-bremen.de/WoSLaD/)

25-27 October 2005

III Congreso de Fonetica Experimental/
3rd Conference on Experimental Phonetics

Santiago de Compostela, Spain.

<http://www.usc.es/iicfe/index.htm>

29-31 October 2005

4th International Workshop on Models and
Analysis of Vocal Emissions for Biomedical
Applications

Firenze, Italia.

<http://maveba.det.unifi.it>

5-6 November 2005

First International Congress of
Phoneticians of English (ICPE2005).

Kochi University, Japan

<http://www.kochi-u.ac.jp/~tamasaki/>

[10thEPSJNationalFirstInt'l.htm](http://www.kochi-u.ac.jp/~tamasaki/10thEPSJNationalFirstInt'l.htm)

3-7 January 2006

Pacific Symposium on Biocomputing
Session: Linking Biomedical Information
through Text Mining

Wailea, Hawaii, USA.

<http://psb.stanford.edu/cfp-nlp.html>

THE 5TH COLUMN

The 5th Column is about your views on ASSTA. It is a vehicle for voicing independent views within our association. It is a way to let both the executive and the general membership know your feelings about the issues. It is particularly important in light of ASSTA's positive financial position. It was created to promote a transparent exchange

of ideas; responses to 5th Column articles will also be published in this column.

Please send your views to the editor and they will be published in this column. The editor will, of course, always exercise editorial discretion. Please also send a brief biography of the author.

ASSTA GRANTS PROGRAM

ASSTA manages a number of grants that aim to provide support to members in their research in Speech Science and Technology. Some of the grants are:

PhD Study Awards for student members a year into their PhD.

ASSTA PhD of the Year Award for the best PhD completed each year.

Research Event Awards for research events organised by ASSTA members.

ASSTA Travel Awards for travel to conferences.

The **National Lecture Tour Programme** to enable prominent experts to lecture in provincial areas.

Applications for PhD Study Awards, PhD of the Year and Research Event Awards are due on 25 November 2005. Travel awards may be applied for at any time of the year before the conference date. Don't miss these opportunities!

www.assta.org/initiatives/

SST CONFERENCE PROCEEDINGS

Past SST and ICSLP'98 conference proceedings are available for purchase.

SST-86 to SST-2002 proceedings: \$5.50

ICSLP'98 proceedings (on CD): \$27.50

SST-2004 proceedings are available on the web

(<http://www.assta.org/sst/2004/>)

Non-members add \$11, institutions add \$55 to prices for SST proceedings.

Postage and packaging is extra. All prices include GST.

Contact the Publications Manager: dgrayden@bionicear.org

SST06

The organising for SST06 is now underway. This conference will be the twentieth anniversary of the International Australian Conference on Speech Science and Technology. It will be held on the 6th-8th of December, 2006, with a tutorial day on the 5th of December. It is going to be held in Auckland, New Zealand. This is the first time that the SST conference series has headed off-shore. The conference will be held at the city campus of the University of Auckland, which is in downtown Auckland. We are also planning to put together a collection of suggested interesting things to do in Auckland for any accompanying partners, as in addition to shopping there is much to do; for example, seeing the many excellent art galleries, and museums nearby, or doing one of the ferry trips to the many interesting islands in the Hauraki gulf (one of which has several well-known vineyards, another of which is a (very, very) extinct volcano).

The conference organizing committee is drawn from many disciplines, as is the tradition for SST conferences. We have people from Linguistics, Psychology, Engineering, and Education. The members of the committee and their roles are:

- Catherine Watson (Chair),
- Bernard Guillemin (Secretary),
- William Thorpe (Treasurer),
- Paul Warren (Scientific Program Coordinator),
- Elaine Ballard (Local activities),
- Suzanne Purdy (Publicity),
- Waleed Abdulla (Deputy Program Coordinator), and
- Peter Keegan (Web Coordinator).

The sponsorship and exhibits will be jointly overseen by Suzanne, William, and Bernard. The ASSTA SST committee guidelines are an excellent resource when setting up a committee (so thanks to the executive for these). We have added in one more role than those suggested, that is a web-coordinator as the web is now an important tool for many aspects of the conference organizing.

We are looking forward to seeing you all at SST06, on the 6-8th December, 2006. More details about the conference, such as the various submission dates, will be sent out shortly.

Catherine Watson (Chair)
c.watson@auckland.ac.nz