ISCA Archive
http://www.isca-speech.org/archive

Speech Analysis and Processing for Knowledge Discovery

Aalborg, Denmark
June 4-6, 2008

Innovative Acoustic Probes to Test Predictions of Wider Utterance Context

Dave Davies (1), Bruce Millar (2)

(1) Information Sciences and Engineering, University of Canberra, Australia
(2) Research School of Information Sciences and Engineering, ANU, Australia

Innovative measures that are targeted to specific regions of the acoustic stream of speech are described as part of a predictive speech recognition system comprising multiple dimensions. Each dimension generates its own constraint on the next stage of interpretation of an unknown utterance and together they suggest targeted questions to be asked of the acoustic stream. Acoustic probes that address distinctions between vocalic nuclei and between stop consonants are presented as illustrations of the technique. A novel parametric stability level measure providing segmentation of the acoustic stream is applied alongside more conventional measures and their relative performance is noted.

Full Paper
Presentation

Bibliographic reference. Davies, Dave / Millar, Bruce (2008): "Innovative acoustic probes to test predictions of wider utterance context", In *SPKD-2008*, paper 044.