

Notes for UTM reading etc

READING

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Reading lists for the 3 main speech courses

Speech Processing:

Speech and Language Processing (SECOND EDITION!). Daniel Jurafsky and James H. Martin.

Speech Synthesis. Paul Taylor

Spoken language processing. Xuedong Huang, Alex Acero and Hsiao-Wuen Hon

Speech Synthesis and Recognition John N. Holmes and Wendy J. Holmes (2nd edition)

Fundamentals of Speech Recognition. Lawrence R. Rabiner and Biing-Hwang Juang.

Elements of Acoustic Phonetics. Peter Ladefoged. 2nd edition (1996)

Automatic Speech Recognition: see the slides; full bibliographic entries are given here: <http://www.inf.ed.ac.uk/teaching/courses/asr/>

Speech Synthesis: see the slides

Additional reading on specific topics

DBNs:

<http://www.inf.ed.ac.uk/teaching/courses/pmr/>

<http://www.cis.upenn.edu/~mkearns/papers/barbados/jordan-tut.pdf>

<http://research.microsoft.com/en-us/um/people/cmbishop/PRML/Bishop-PRML-sample.pdf>

Feature extraction:

Modulation spectrum

H. Hermansky, "The Modulation Spectrum in Automatic Recognition of Speech", in 1997 IEEE Workshop on Automatic Speech Recognition and Understanding, IEEE Signal Processing Society, editors S. Furui and B.-H. Juang and W. Chou, 1997, pdf, postscript, abstract. From <http://www.ee.columbia.edu/~jdh17/pubs/97modspec/>

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Looks like some code is available from <http://www.ee.columbia.edu/~marios/modspec/modcodec.html>

Tandem features

Other topics:

I can suggest other readings on Microphone arrays, Feature extraction, MLLR, MLPG, MLSA etc. Just ask!

Multi-/Cross-lingual (papers by Tanja Schultz)

Cross-corpus normalisation (papers by Bill Byrne)

WEB LINKS

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HTK toolkit: htk.eng.cam.ac.uk

HTS toolkit: hts.sp.nitech.ac.jp

Festival: www.cstr.ed.ac.uk

SPTK: <http://sp-tk.sourceforge.net/>

<http://www.speech.cs.cmu.edu/Communicator/>

<http://www.classic-project.org/>

Pitch trackers:

Yin

get_f0

also tools in Edinburgh Speech Tools and probably also in SPTK

Online speech synthesis demos:

interactive Festival demo - <http://www.cstr.ed.ac.uk/projects/festival/onlinedemo.html>

examples of HMM speech synthesis - <http://homepages.inf.ed.ac.uk/jyamagis/Demo-html/demo.html>

The AMI corpus of multiparty meeting speech, video, etc: <http://corpus.amiproject.org/>

OTHER INFO

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Ting has copies of all slides, both full size and handout versions, in PDF format.