

Lecture

“Advanced Methods in Automatic Speech Recognition”

SS 2014

Type	Schedule / Room	Start	Instructor
V3	(für Master Informatik, Master SSE und Master MI) Mo 10 ¹⁵ –11 ⁴⁵ 5056 Mi 08 ¹⁵ –09 ⁴⁵ 5052	14.04. 23.04.	Dr.rer.nat. R. Schlüter, Prof. Dr.–Ing. H. Ney
Ü2	Do 10 ¹⁵ –11 ⁴⁵ 5054	10.04.	t.b.a.

Content:

- Recapitulation speech recognition with large vocabulary and linear lexicon
- Search with lexical prefix trees
- Word graphs and word pair approximation
- Time-conditioned search
- Coarticulation and word segments
- Confidence measures and system combination
- Discriminative training
- Speaker adaption and normalization
- Current topics

The lecture covers advanced aspects of automatic speech recognition. Special emphasis is put to decoding/search beyond linear lexica, modelling of words and word boundaries, and discriminative training of speech recognition systems.

Assignment:

Applied Computer Science or Field of Specialization

Requirements:

Modul (Introduction to) Automatic Speech Recognition or comparable knowledge in the field of automatic speech recognition.

References:

- F. Jelinek: “Statistical Methods for Speech Recognition”, MIT Press, Cambridge, MA, 1998.
- D. Jurafsky, D. H. Martin: “Speech and Language Processing”, Prentice Hall, Englewood Cliffs, NJ, 2000.
- R. De Mori: “Spoken Dialogues with Computers”, Academic Press, London, 1998.
- Current publication on automatic speech recognition

Others:

The lecture will be given in English.

For more information, please contact:

Dr. Ralf Schlüter, Lehrstuhl für Informatik 6, Tel. 80-21612,
e-Mail schluter@informatik.rwth-aachen.de