Professor Dr.-Ing. Hermann Ney
Human Language Technology and Pattern Recognition
Chair of Computer Science VI
RWTH Aachen University of Technology, D-52056 Aachen, Germany
1-October-2010

EDUCATION:

University of Goettingen, Germany	Physics	Diplom	1977
University of Braunschweig, Germany	Electrical Engineering	Dr.-Ing.	1982

EMPLOYMENT:

1993 – present	**RWTH Aachen, University of Technology**, Germany; professor of computer science.
1988 – 1989	**Speech Research Department, AT&T Bell Labs,** Murray Hilly, NJ; visiting scientist.
1977 – 1993	**Philips Research Laboratories,** Hamburg and Aachen, Germany; head of research department working on pattern recognition and speech recognition and understanding, 1984-1993.

RESEARCH INTERESTS:

- speech recognition and spoken language understanding;
- language translation and processing;
- computer vision and pattern classification.

ACHIEVEMENTS:

- more than 500 papers in international conferences and journals
- Hirsch index (computed with Google Scholar): 63
- many invited talks and best paper awards
- successful participation in international evaluation campaigns for speech recognition, handwriting recognition and language translation.
- 2005: IEEE Signal Processing Society: technical achievement award.
- 2009: ISCA fellow (ISCA = Int. Speech Communication Association).
- 2010: DIGITEO award (senior chair at LIMSI/CNRS Paris): topic: speech recognition and language translation.

MAJOR PROJECTS AND FUNDING:

- 2008-2013: QUAERO/France, RWTH part: speech recognition and translation for French, German, English and other languages; face and image recognition.
- 2005-2011: GALE/US: RWTH part: speech recognition and translation for Arabic and Chinese.
- 2004-2007: EU-funded project TC-Star, RWTH part: speech recognition and translation of EU parliamentary speeches.
- 1996-2012: various EU-funded projects on speech recognition, language translation and sign language processing.
- 1995-2000: Verbmobil/Germany, RWTH part: speech recognition and language translation.
- 1993-2012: bilateral projects with companies.

PROFESSIONAL ACTIVITIES:

- Co-chair of IEEE-ACL Workshop on Spoken Language Technology (Dec. 2006)

- Editor in Chief ACM Transactions on Speech and Language Processing (2005-2007)

- Associate Editor IEEE Transactions on Speech and Audio Processing (2001-03)

- Member IEEE Speech Technical Committee (1995-2000)

- Member Editorial Board for Computer, Speech and Language (1993-2001)

- Member Editorial Board for Speech Communication (1993-2001)

- Member Technical Committee of DAGM (German association for pattern recognition) (2003-2006)

- Member Executive Committee German Section of the IEEE (1992-98)

SYSTEMS AND EVALUATIONS:

- **March 2005, 2006, 2007: TC-Star Evaluation Campaign:**
  – task: recognition and translation of European Parliamentary Speeches.
  – competitive positions for the RWTH systems

- **Oct. 2004 and Oct. 2005: Int. Workshop on Spoken Language Translation:**
  – task: translation of spoken language (traveling domain) from Chinese, Japanese and Arabic into English
  – leading positions (1-3, dep. on criteria) for RWTH system

- **June 2004: Data Mining Cup:**
  – task: prediction of customer behaviour for online shopping
  – positions 1,3 und 5 for the RWTH systems among 100 international participants

- **2002–2005: DARPA/NIST Evaluations for Language Translation:**
  – task: translation of Chinese news texts into English
  – position 1 for the RWTH system in 2002
  – competitive positions in 2003-05

- **June 2000: Evaluation of Verbmobil project:**
  In the evaluation of four competing translation systems, the RWTH system was found to be the best; its sentence error rate was 29% in comparison with 52% for the second best system.

- **1999: Training software (GIZA++) for language translation:**
  The RWTH team wrote a software package (partially with US-NSF funding) for the training of statistical translation models. This software is meanwhile used by many groups worldwide.

- **DARPA/NIST Evaluations on speech recognition:**

  – Sep. 1992: The system of the Philips team achieved the lowest error rates in 3 out of 4 conditions.
  – Nov. 1993, Nov. 1994, Nov. 1998: Further successful participation of the RWTH team (jointly with Philips) in evaluations for large vocabulary speech recognition (Wallstreet Journal, Broadcast News).

- **1993: Spoken dialog system for telephone access:**
  first research prototype by Philips for speaker-independent recognition via telephone with flexible speech input (domain: train table information within Germany).

- **1993: Prototype system for large-vocabulary continuous-speech recognition:**
  first commercial prototype for large-vocabulary continuous-speech recognition that was demonstrated by Philips Dictation Systems in Vienna in Sep. 1993.