

Yuuki Tachioka, Dr(Eng)

Personal Profile Statement

After 9-years research and development of speech enhancement and speech recognition at Mitsubishi Electric corporation, in 2017, I joined Denso IT Laboratory for expanding the study field such as speech synthesis and development of spoken dialogue systems. Starting from a study of key technology for speech enhancement and recognition, I have developed practical technologies for real use. In my current job, I have managed a collaboration of various technologies such as speech-related technologies, information retrieval technology, and dialogue management technology with other researchers to develop an easy-to-use spoken dialogue system.

Education

- 2002. 4 - 2006. 3 Department of Architecture, School of Engineering, The University of Tokyo, B(Eng)
- 2006. 4 - 2008. 3 Department of Socio-Cultural Environmental Studies, Graduate School of Frontier Sciences, The University of Tokyo, M(Env)
- 2011. 4 - 2014. 3 Department of Japanese Language and Literature, College of Humanities and Sciences, Nihon University, B(Literature)
- 2017. 4 - 2018. 3 Department of Information and Communications Engineering, School of Engineering, Tokyo Institute of Technology, Dr(Eng)

Employment

- 2008. 4 - 2017.4 Information Technology R & D center, Mitsubishi Electric Corporation, Researcher
 - 2012.11 - 2013. 2 Mitsubishi Electric Research Laboratories, Visitor
 - Developed speech enhancement technology and automatic speech recognition system as a member
- 2017. 5 - Denso IT Laboratory, Associate Researcher
 - Developed speech enhancement technology and automatic speech recognition, speech synthesis, and spoken dialogue systems
- 2018. 4 - Denso IT Laboratory, Researcher
 - Developed speech enhancement technology and automatic emotion recognition, speech synthesis, and spoken dialogue systems
- 2022. 4 - Denso IT Laboratory, Senior Researcher
 - Managed a collaboration with various technologies

Achievements

Research activity

- 1 book, 19 journal papers, and 36 international conference papers
- Senior member of IPSJ
- Reviewer for journal transactions such as IEEE Trans. ASLP, Speech Communication, and EURASIP Journal and for international conferences such as ICASSP, ASRU, SLT, INTERSPEECH, APSIPA
- Detailed references are found in http://tachioka.gokenin.com/index_en.html

Speech recognition

- Implementation of a state-of-the-art speech recognition system by using OSS
- Collaboration with US lab in 4 months
- Our developed speech recognition system had achieved the state-of-the-art performance for the most famous Japanese speech recognition task (CSJ), which had been reported by Nikkei Shimbun, Nikkei Electronics, and Nikkan Kogyo Shimbun.
- Our system was also used for elevator speech recognition, which had been widely reported by newspapers or TVs.

Skills

- Object-oriented analysis and design
- Development of PC applications by using C++
- Implementation capability after understanding English papers
- Development of embedded system application by using (C+μ itron) or Android applications
- Script languages for efficient development (python, perl, bash, matlab)

Awards

- 2008. 3 Master Thesis Award of Socio-Cultural Environmental Studies, Dept. Socio-Cultural Environmental Studies, Grad. Sch. Frontier Sciences, Univ. Tokyo
- 2008. 9 19th Excellent Master's Thesis Prize, Architectural Institute of Japan
- 2014. 3 35th Awaya Prize, Acoustical Society of Japan
- 2018.11 ISPACS2018 Best Paper Award
- 2021. 3 IPSJ Yamashita SIG Research Award
- 2021. 9 IPSJ Elevation to senior member