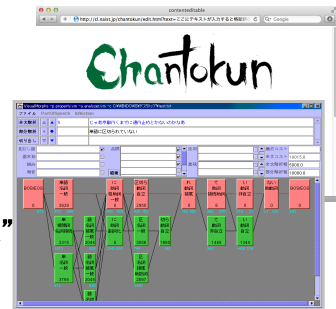


Overview (natural language processing, text mining, keywords, web text analysis, knowledge infrastructure)

We focus on computational approaches to understanding natural language, the essence of human intelligence. We make both fundamental and applied research on natural language analysis.

Research topics

- ★ Japanese Morphological Analyzer “ChaSen”
- ★ Corpus Management and Search Tool “ChaKi”
- ★ Japanese Dependency Parser “CaboCha”
- ★ Predicate Argument Structure Analyzer “YuCha”
- ★ Opinion Mining from the Web
- ★ Error Correction System “Chantokun”, “CorrCha”
- ★ Technical Term Retrieval Assistance



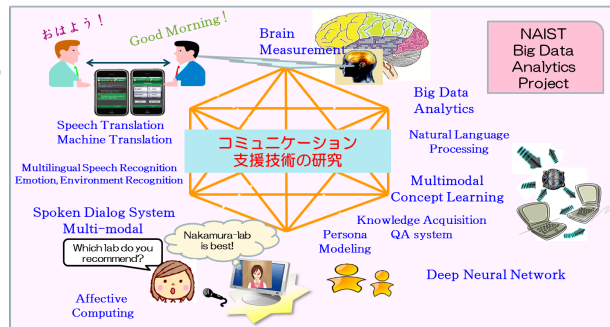
Augmented Human Communication Lab (Nakamura Lab.)

Overview

Toward enhancement of human communication abilities, AHC lab. is studying multilingual speech translation, dialog system, user-adaptive super-human automatic speech recognition/synthesis, and brain analysis related human communication. We are also managing Big Data analytics of overall NAIST.

Research topics

- ★ Speech Translation
- ★ Speech Recognition
- ★ Dialog System
- ★ Communication support for autism
- ★ Brain analysis related human communication
- ★ Big Data Analytics



SRG(Super Research Group): New research laboratory, creates wider collaborations inside and outside of NAIST

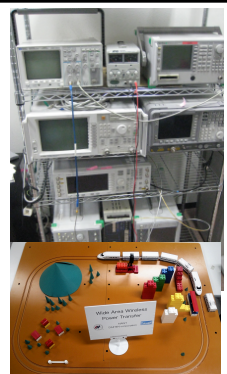
Network System Laboratory (Okada Lab.)

Overview (Wireless power transfer, Mobile communication and broadcasting, Radio over Fiber (RoF), Wireless sensing)

We study digital wireless communication system, wireless sensing, techniques relating energy fields, and their embedded systems. In addition to signal processing such as OFDM, MIMO, MUSIC method and compressed sensing, wireless localization and wireless power transferring are studied.

Research topics

- Terrestrial-digital broadcasting reception
 - Software defined radio receiver
- Compressed sensing based channel estimation
- ★ Wireless power transfer to moving vehicle
- Radio over Fiber
- Leaky coaxial cable MIMO
- Wireless localization



Cybernetics & Reality Engineering Laboratory (Kiyokawa Lab.)

Overview (Virtual and Augmented Reality, Human Augmentation)

We conduct research to create tools of the future and to augment human capabilities based on three key technologies; sensing, display and interaction.

Research topics

- ★ Vision Augmentation Goggle (redesign our vision system)
- ★ Diminished Reality (remove real objects in real-time)
- ★ AR with re-generated images (AR without registration errors)
- ★ Various “only-one” HMDs, e.g., occlusion and super wide-view

