

Speech Recognition

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Abstract

We developed the spontaneous speech recognition technology and offer a user interface using this technology that supports the business in the call center. The call center enables users to access of various information by telephone. The speech recognition technology is used on car navigation systems and cellular phones, etc. Recently, the speech recognition technology is used to detect several words to support the business in the call center. For example, the support system can search FAQ(Frequently Asked Questions) with detected retrieval keywords, and warn the operator of detected taboo words. In these Applications, the spontaneous speech recognition technology which can recognize a conversation between humans is one of the most important technologies.

Technology

In the ordinary speech recognition technologies, users can speak only registered words or sentences. In addition, they have to move to a low-noise environment.

Therefore, to recognize the spontaneous speech and increase the usability, we developed the speech recognition technology with the features below:

- **Key word detection:** Rejects needless words and recognizes only registered words in the lexicon
- **Robustness against noise:** Practical speech recognition in noisy environments (e.g. vehicles)
- **Speaker-independent recognition:** No speaker adaptation needed

Application Examples

The speech recognition technology is useful in the call center applications below:

- FAQ search system: Searching FAQ and showing results on the operator's display.
- Taboo words detection system: Detecting taboo words, warning operators of them and indexing recorded speech file.

