

Semester / Master Thesis:

Speech Activity Detection

Motivation and Informal Description: In the current speech recognition technology, utterance detection plays an important role. Basically, the first step of any speech recognition system is to detect whether the input is a speech or non-speech signal. An intuitive approach is to evaluate the energy level of the input signal. In fact, it is the most common approach in speech recognition technology. However, its main drawback is it can hardly discriminate between a non-stationary background noise and a speech signal.

To address this problem, here we propose to use an intelligent algorithm that can learn the characteristic of speech signal. Besides improving the speech recognition rate, some of the potential applications of such an algorithm can be: Speech activity detection in surveillance system, speech activity detection in home-nursing system and speech activity detection in game consoles.

Requirements: Some background in speech processing or machine learning is useful but no necessary.

Interested? Please have a look at <http://www.tec.ethz.ch/research.html> and contact us for more details!

Contacts

- Tofigh Naghibi: t.naghibi@tik.ee.ethz.ch, ETZ D97.5
- Beat Pfister: pfister@tik.ee.ethz.ch, ETZ D97.6

