| Division of Electrical Engineering and Computer Science | Research<br>field                          | Signal Processing | Lab. ID<br>EC05 |
|---|--|-------------------|-----------------|
| Laboratory web site                                     | http://horita.w3.kanazawa-u.ac.jp/english/ |                   |                 |
| Research subjects                                       |  |                   |                 |

Digital signal processing technologies play an important role in processing acoustic, speech and image signals. Among them, adaptive signal processing methods which can track changes of statistical characteristics of signals are important approaches to acoustic and speech signal processing and communication systems. We pursue new discoveries in digital signal processing.

## Master/Doctor course: Education policy, curriculum, typical activity in the laboratory

Master course: The first grade students take one seminar of digital signal processing by using English references. At the beginning of the second grade, the students decide their practical subject for the Master thesis after consultation with the staff.

## Daily life in the laboratory, etc.

Personal working desk with a personal computer and MATLAB is available for every student. In addition, a digital signal processor system is also available for students.

## Message or comments by the laboratory faculty staffs

Prof. Horita is a senior member of both IEEE and IEICE. My laboratory is seeking master students who have an interest in digital signal processing and a challenging spirit.

| Recent Master theses in these 3 years (+ more if appropriate)   |   |  |  |  |
|---|---|--|--|--|
| year.month  | Thesis title (including English translation of Japanese thesis title)   |  |  |  |
| 2021.3  | A study on an impulsive noise detection method in noisy speech signals using the sliding discrete Fourier transform |  |  |  |
| 2020.3  | A study on an impulsive noise detection method in noisy speech signals using the short time Fourier transform       |  |  |  |
| 2013.3  | A stochastic analysis of a leaky RLS algorithm for an ANC system  |  |  |  |
| 2013.3  | A study on a leaky RLS algorithm with a time-varying regularization parameter                                       |  |  |  |
| 2013.3  | A study on characteristics of leaky RLS and its approximation algorithms for an ANC system                          |  |  |  |
| Recent Doctoral theses in these 3 years (+ more if appropriate) |   |  |  |  |
| year.month  | Thesis title (including English translation of Japanese thesis title)   |  |  |  |
|   |   |  |  |  |
| Laboratory mail address   |   | Eisuke Horita <horita *at*="" se.kanazawa-u.ac.jp=""></horita> |  |  |