



# Biological sound-based medical diagnosis system

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Fig.1 A sample of snoring sound recordings



Fig.2 A sample of bowel sound recordings

## Content:

There are a lot of patients who suffer from chronic disease (e.g. obstructive sleep apnea and a bowel disease etc.). Recently the prevalence of these diseases is likely to be increasing in many countries. Polysomnography (PSG) and endoscopic test have been used for the diagnosis. However these tests are inconvenience and expensive. Our research group hypothesizes that the information on these diseases should be embedded in biological sounds (e.g. snoring and bowel sounds) obtained from the patients. Biological sounds can be simply acquired via non-contact and/or non-invasive measurements. The target of our study is to develop the automated diagnosis system based on the analysis of biological sounds. We are currently in the process of developing new sophisticated techniques for future medical applications. Biological sound-based techniques can be expected to provide an attractive alternative to the conventional test for chronic disease.

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