



# Japanese Vowels

This dataset records 640 time series of 12 LPC cepstrum coefficients taken from nine male speakers.

## Dataset Characteristics

Multivariate, Time-Series

## Subject Area

Other

## Associated Tasks

Classification

## Feature Type

Real

## # Instances

640

## # Features

-

## Dataset Information



### Additional Information

The data was collected for examining our newly developed classifier for multidimensional curves (multidimensional time series). Nine male speakers uttered two Japanese vowels /ae/ successively. For each utterance, with the analysis parameters described below, we applied 12-degree linear prediction analysis to it to obtain a discrete-time series with 12 LPC cepstrum coefficients. This means that one utterance by a speaker forms a time series whose length is in the range 7-29 and each point of a time series is of 12 features (12 coefficients).

The number of the time series is 640 in total. We used one set of 270 time series for training and the other set of 370 time series for testing.

Number of Instances (Utterances):



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### Length of Time Series:

- \* 7 - 29 depending on utterances

### Analysis parameters:

- \* Sampling rate : 10kHz
- \* Frame length : 25.6 ms
- \* Shift length : 6.4ms
- \* Degree of LPC coefficients : 12

### Files:

- \* Training file: ae.train
- \* Testing file: ae.test

### Format:

Each line in ae.train or ae.test represents 12 LPC coefficients in the increasing order separated by spaces. This corresponds to one analysis frame.

Lines are organized into blocks, which are a set of 7-29 lines separated by blank lines and corresponds to a single speech utterance of /ae/ with 7-29 frames.

Each speaker is a set of consecutive blocks. In ae.train there are 30 blocks for each speaker. Blocks 1-30 represent speaker 1, blocks 31-60 represent speaker 2, and so on up to speaker 9. In ae.test, speakers 1 to 9 have the corresponding number of blocks: 31 35 88 44 29 24 40 50 29. Thus, blocks 1-31 represent speaker 1 (31 utterances of /ae/), blocks 32-66 represent speaker 2 (35 utterances of /ae/), and so on.

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### Has Missing Values?

No

## Variables Table



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Variable Name	Role	Type	Description	Units	Missing Values
					no
					no
					no
					no
					no
					no
					no
					no
					no
					no

Rows per page

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Additional Variable Information

12 Real Attributes

Reviews

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