



ABSTRACT OF THE DISCLOSURE

A study system of a character recognizing and translating system is provided with a character data base for storing character data representing characters contained in a sensed
5 image; a character shape analysis unit for analyzing the shape of a character to extract the features of character constituting elements constituting the character; and, a mask learning unit for generating sample mask data of the character constituting elements on the basis of the analysis result of the character
10 shape analysis unit. A recognition system of the character recognizing and translating system is provided with a collating unit for collating the character data of a character to be recognized with the sample mask data so as to recognize the character. Further, a study system of a voice recognizing and
15 translating system is provided with a sound data base for storing data from which noise is removed; a sound analysis unit for extracting the features of the voice corresponding to the voice data stored in the sound data base; and a model learning unit for creating an acoustic model on the basis of the analysis result of
20 the sound analysis unit. A recognition system of the voice recognizing and translating system is provided with: an acoustic model storing unit for storing acoustic models; a second sound analysis unit for extracting the feature of the voice corresponding to the data concerned on the basis of the data
25 obtained by removing the data representing noise from the voice data of a newly input voice, and a voice collating unit for

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collating the voice data obtained by the second sound analysis unit with the data of the acoustic models so as to recognize the voice.