Static Hand Gesture Recognition of Indonesian Sign Language System Based on Backpropagation Neural Networks

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Author Order	of
Accreditation	
Abstract	The main objective of this research is to perform pattern recognition of static hand gesture in Indonesian sign language. Basically, pattern recognition of static hand gesture in the form of image had three phases include: 1) segmentation of the image that will be recognizable form of the hands and face, 2) feature extraction and 3) pattern classification. In this research, we used images data of 15 classes of words static. Segmentation is performed using HSV with a threshold filter based on skin color. Feature extraction performed with the Haar wavelet decomposition filter to level 2. Classification is done by applying the back propagation system of neural network architecture with 4096 neurons in input layer, 75 neurons in hidden layer and 15 neurons in output layer. The system was tested by using 225 data validation and accuracy achieved was 69%.
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