ABSTRACT

Form C1 KPU is a document election voting results in each polling place. The mechanism of manual calculation were carried out by KPU officer by entering data in a form C1 took quite a long time. To handle thi issue, the mechanism of inputting can be done automatically by making handwriting digit recognition system vote result counts in form C1 KPU.

The system consists of several stages, that is data collection, pre-processing, feature extraction and classification. Characteristic extraction process performed by the Local Binary Pattern Variance (LBP Variance) method which is the development of methods Local Binary Pattern. The classification process is performed using K-Nearest Neighbour by using the Euclidean distance calculation distance.

Testing on this handwriting digit recognition system indicate that the method used, LBP Variance can recognize handwritten digit characters in the data MNIST with accuracy 89.65% using the best parameter radius 4, 256 and 64 bin histogram, the distribution of 9 region in the image and take 10 nearest neighbors at the stage of the K-NN classification. System accuracy decreases when the system is applied in the form of test data C1 into 70.9091% using training data C1.

Term of Index*: Handwriten digit recognition, Local Binary Pattern Variance, K-Nearest Neighbour, form C1 KPU*