Abstract

Today mobile devices especially *smartphone*s already have the ability to perform features that resemble a personal computer. It is supported by its hardware. One feature that is able to be applied on a *smartphone* is Optical Character Recognition (OCR). OCR is one of the technology in the field of pattern recognition and artificial intelligence as a machine readable characters in the image to turn it into text data .

One of the main problems in implementing mobile devices into the OCR system is performance. Accuracy and processing time as a benchmark for an OCR system performance. In this research, the writer proposed feature extraction method using Centroid to Boundary. Centroid to Boundary has processing time better than some other methods, this method is also invariant to size and rotation of image. The method will get a feature of character based on distance from center point of character to its contour . For classification, Backpropagation Neural Network will be used, which the learning process will be carried out separately on a regular computer .

With the Centroid to Boundary method for OCR systems built on these *mobile* devices, it can have a good time computational processes. Neural network algorithm that used in classification process can improve the system performance better include computational processing time and accuracy .

Keywords : OCR , Character Recognition , *Centroid to Boundary* , Latin letters , *Mobile*