Abstract

Mobile smartphones powered by Android OS has now been able to do complete and complex features. One feature that can be applied to the android based smartphone is OCR (Optical Character Recognition). OCR to recognize the writing on the image and converts it to a digital document in the form of text data. There are several methods that can be used to perform the OCR, such as by using a global thresholding and local thresholding. Global thresholding methos using Otsu and local thresholding using methods sauvola or Image Phase congruency (IPC). The Image Phase congruency (IPC) Method has a higher computing Time(s) due to threshold calculations performed locally. By adding a binarization prepoccessing using IPC method, in particular the performance of OCR accuracy is 68.11% higher than OCR without binarization and 10.45% higher than OCR with Otsu method.

Keywords: *Optical Character Recognition(OCR), binarization , preprocessing, Image Phase Congruency(IPC),threshold, accuracy.*