

ABSTRACT

Formal educations are very important for everyone, but sometime, some people have limitation in several things. Such as blind people who can't get proper education. For that reason, some blind people use Braille letter for reading. Braille letter is a special letter to be used by blind people who want to get information and science.

However most people don't know the Braille letter, especially people without eye blinds who need to learn Braille letter, by translate the Braille letter to common letter. This Final Task is designing and applying translator from Braille letter to Arabic form with Matlab code and KNN method. Input for this system is Braille image with bitmap format, this system works by processing digital image against input image. the steps are color to grayscale transform image, use noise removal with median filter if needed, thresholding, segmentation and Braille dot identifier.

The system do recap with calculation can reach 96.68% for mean of pixel wide and 89,95% for histogram area, with K point equal 3 for luas pixel rata-rata and K point equal 1 for histogram area.

Keywords: Braille, hijaiyah, Digital Image Processing, KNN