Abstract

Optical Braille recognation is a computer system capable of reading a document that has into braille image. OBR assist in the process of writing checks on the baille writing that has been typed in the document to be more effective in terms of time and effort.

In this system built by using multiple methods. OBR Methods in this system consists of a number of methods including image acquisition that include image, image processing, dot localization, dot recognition and conversion, and the dot localization using grid calculation, grid calculation here using vertical and horizontal curves where curves are used to position braille dot and dot recognition using a mesh detection,mesh detection here is a method to change the dot dot braille to be declared active or not. And the conversion done when all dot positions are recive then it changed into a binary then converted into numbers and it matched with the alfabeth database using a decimal code generation and matching algorithm

Based on testing performed by applying the method of grid calculation, mesh detection, decimal code generation on the image document braille in OBR system, the test results can be seen from the accuracy by alfabeth and by dot for alfabeth accuracy is 97,54% and dot braille is 99,58%. From the tests performed the paper quality and dot braille typing have the factors
affecting the level of detection of the points are active or not active a dot dot braille.

Keywords: OBR, grid calculation, mesh detection, decimal code generation, braille