ABSTRACT

To make people who don't understand Braille can read it easier, an automatic system which can convert Braille characters to latin lettering and voice is made. When there is a literature or an article in Braille characters, then it will be converted from that Braille characters into text and voice automatically so people can understand it easily.

In this final task, an automatic converter system based on image which is can identify and convert Braille characters from a Braille article image with certain condition taken from scanner, with feature extraction, histogram area is designed. The system will identify Braille characters and classify it into latin characters using *K-Nearest Neighbor*. Then the system will convert the latin characters into voice using diphone system which will cut latin letterring into syllable sound.

The system was tested with 22 images consist of 688 characters. The resault of this final task , the Braille converter has 100% accuracy on k=1, k=3 and k=5 and the best of MOS on overlap value = 0.8.

Keyword*: Converter, Braille, Histogram Area, K-Nearest Neighbor, Diphone*