ABSTRACT

Character Recognition by template matching is a method that comparing character image with database of character template perceived from correlation between both.It means that a value that determining similiarity a sample image with template comes from the calculation of substract between intensity of every pixel with mean intensity, neither at sample image or template image. The template matching method that's used is *2D-Correlation Coefficient* dan NCC(*Normalised Cross-Correlation*).

2D-Correlation Coefficient is a matching technique that comparing intensity each of image position by point-to-point. The method is only be implemented if the both image neither sample image or template have the same size. *Normalised Cross-Correlation* is a technique that normalize every pixel firstly and then calculate the value of correlation. Normalization is aim to avoid the unstable or degradation of correlation value if pixel size of sample image is big.

The best accuracy result from the 10 experiment of two methods is 98.67 % for *2D-Correlation Coefficient* with 1-template. The worst accuracy is 75.33 % for *Normalised Cross-Correlation* with 1-template. The time comparisons between *2D-Correlation Coefficient* and NCC are 1:1.74 for 1-template, 1:1.36 for 3 template, and 1:1.63 for 5 template.

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Keywords: Template Matching, *2D-Correlation Coefficient, Normalised Cross-Correlation,* Segmentasi