ABSTRACT

Artificial Intelligence (AI) is a system developed to learn and apply human intelligence. Some technologies produced from the development of Al are web crawling technology and face recognition technology. Web crawling technology is used to get information on web pages, while face recognition technology is used to identify human faces. This Final Project is implementing web crawling system using face recognition technology.

In this Final Project, designed system will scan human face in real time using You Only Look Once (YOLO) method. Afterward, the result from face recognition will be used as a keyword for web crawling system. The system will be designed using Python language programming, OpenCV library, and Requests library for web crawling.

This Final Project using 8000 datasets which are divided into 5 classes, 6000 images used as data train and 2000 images as data test. The system configuration is tested using learning rate and step training. Performance parameter to be analyzed are accuracy, Intersection over Union (IoU), recall, precision, and precision rate. The total of crawled web in web crawling process is 45 web pages. From the test results, the best configuration was obtained at learning rate 0.0001 and step training 10K. The accuracy obtained is 94.6%, IoU 0.75, recall 0.94, precision 0.99, mAP 0.98, and precision rate 0.87.

Keyword: *you only look once, face recognition, object detection, web crawling.*