ABSTRACT

Eye is one of human part of body which used by human for viewing and do everyday activities. If those eyes get problem such as sick of course that will interrupt the ability of vision and limit human everyday activities.

Pterygium is one of many eye illnesses which can cause zero visibility or even blindness, and mostly happen in tropical country like Indonesia. Unfortunately, in grade 1 health facility they are still not well known about pterygium, this problem become the patient need to be forwarded to grade 2 or even grade 3 health facility.

In this final project will be build a detection system of pterygium and classified to how damaged it was to the eye, by doing image segmentation with Hough Transform method and then classified by counting pixel of pterygium value and then using expert system for make sure the output of this system will more accurate.

The result from image processing and expert system is statement about detected pterygium or not detected pterygium, meanwhile for expert system the output will be which type is that pterygium. In Hough Transform after do testing the accuracy get 82.5%, and for expert system by using Forward Chaining the accuracy get 100% .

Keywords: *Image Processing, Expert System, Pterygium, Hough Transform*