ABSTRACT

This research discusses how the camera can take good images and take images that can be processed so that the tool can conclude about the state of hydroponic plants in growth. This is necessary because monitoring is needed in hydroponic care.

In general, the part that the author takes is a way of detecting plant disturbances in growth by reading the colors on the leaves, besides that, the method is done by segmenting which is divided into leaves, diseases, and backgrounds, Finally, the machine will make the decision for the disease.

The parameter of the success of this final project is being able to read the growth inhibitors suffered by plants with a minimum of 90% success, being able to read diseases or health in a hydroponic field.

***Keywords**: Computer Vision, Digital Image Processing, Neural Networks, Hydroponic Plant Monitoring, Hydroponic Plant Disease Detection.*