

Title: Android-based Application Utilizing Image Processing with Artificial Neural Network for Detecting Ringworm and Yeast Infections for Dogs Using Neuroph Framework

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EXECUTIVE SUMMARY

The major goal of this research is to give the dog owners a system built in android application that can determine skin infections such as yeast and ringworm in their dog's skin. The proponents used an image processing algorithm in achieving the objectives. The system can run on any Android device having a minimum camera resolution of five megapixels to clearly capture the skin of the dog and to make the result of the image more precise.

The researchers used Open Source Computer Vision (OpenCV) to detect and analyze captured image as a localized skin lesion, in which it has the ability to stitch the image together in order to produce a high-resolution image of the entire scene and to clearly find a similar data image from the images in the database. Artificial Neural Network (ANN) model was also utilized in the application to train the based input and output of the image of the dog skin disease and then the captured image can be detected and analyzed using by OpenCV. And it compares the sample image in the database which is the basis of image classification.

Thus, the goals that were discussed by the proponents in the previous chapters had also completed.

Keywords: Skin Disease, Detector, Image processing, Artificial Neural Network, OpenCV.