

ABSTRACT

Height and weight is one of the parameters to identify a person. To identify the height and weight are usually done manually, in addition to using manual method a measuring of height and weight also can be done using the information associated with your feet. Then, implementation a system measuring the height and weight of the human body through the footprint based on Android.

In this final project, the author discusses how to estimate the weight and height of the image of the sole of the footprint. There are several methods that can be used to estimate the height and weight. In this final project using Discrete Cosine Transform (DCT), Histogram Equalization, Otsu thresholding and classification Nearest Neighbor (NN) which begins with the preprocessing which consists of converting the image to grayscale, Histogram Equalization, Otsu thresholding and then image conversion to black and white.

The research results obtained best height value detection accuracy was 87.50% at 1500x1060 image and the fastest computing time is 2,87 seconds at 800x566 image and the average detection accuracy is 87.06%.

Keywords: Footprint, Height, Weight, Discrete Cosine Transform (DCT), Nearest Neighbor (NN).