

ABSTRACT

Weight is one of the parameters that give a representation of body mass. On the weight measurement which has been done manually that is using the weighing tool (weight scales) obtained the different results, because when the soles of the foot position above the weighing tool (weight scales) is not appropriate at the fulcrum on the weighing tool (weight scales). Weight should always be monitored because weight is a very unstable parameter anthropometry in order to overcome the tendency of decreased or increased a weight undesired (abnormal weight).

In this final exam, the author discusses about how to techniques the height and weight of the human body through the basis texture of the feet stamp. So in this final exam will be designed simulator to measure weight, which other advantages besides measuring body weight is measure body height using of data foot. The method used in this research is the Discrete Wavelet Transform (DWT) as a feature extraction and methods Multi-Class Support Vector Machine (SVM-MC) as a classification by using the application MATLAB.

In this application system, using training data as many as 89 images and test data as many as 26 images. The fastest computing time on the system using the method of classification OAO at 300x264 pixel image that is 0.17165 seconds with the level of decomposition of 8. The best accuracy using the method of classification for height of 98.27% using the image size of 1200x1056 pixels. Mean while, the best accuracy rate of weight using the method of classification OAO gain of 91.17% using the image size of 300x264 pixels.

Keywords *biometry, footprint, thresholding, DWT, SVM-MC*