

ABSTRACT

Along with the continuous development of technology and especially in digital technology, several tools were created to facilitate human needs in everyday life. In general, anthropometric measurements of the body, especially in measuring body height, arm length, leg length, and waist circumference, still use manual measuring tools. In order to improve measurement that is faster and more precise, an application is needed that can be used to measure real time height, arm length, leg length and waist circumference.

Anthropometry is a study conducted to measure the human body. Measurements taken aim to measure the human body such as height, arm length, leg length and waist circumference. This application will be used to measure height, arm length, leg length, and waist circumference simultaneously, making it more effective and efficient. This anthropometric measurement of the body requires several image samples, namely the background image, front view image, and side view image.

Based on the tests that have been carried out from this final project, using 2 different distance parameters, namely at a distance of 350 cm and 450 cm, the application error rate is 0.03% at a distance of 350 cm and 2.14% at a distance of 450 cm. So that to get accuracy in measuring height, arm length, leg length, and waist circumference, you can use a distance of 350 cm for object image capture.

Keywords: *Anthropometry, Image Processing, Matlab.*