BMI Calculator

ABSTRACT

Now a day's height and weight measurement is one of the most important aspects in the recruitment process of defence and police departments. In both the departments, the height and weight is measured by conventional way which is very cumbersome and time consuming process. As an alternative to this problem, this project provides an efficient solution in order to make the recruitment process fast and errorless.

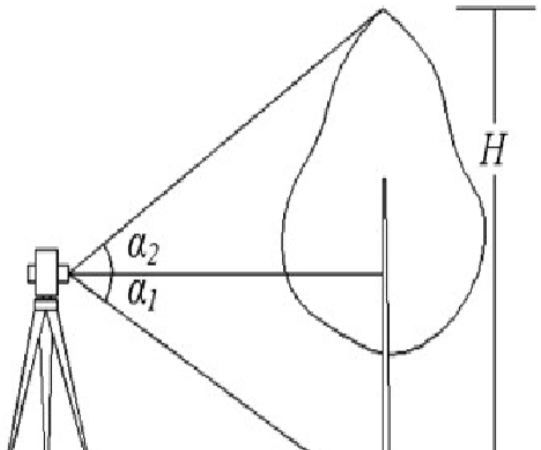
In this paper a webcam is used to capture the image of person, whose height is to be measured. To capture the image by using webcam image acquisition toolbox is used. After capturing the image of candidate, the processing is done on the image by using efficient digital image processing tool that comes with MATLAB. Also, weight sensor is used for measuring the weight of the person and hence by using height and weight, Body Mass Index (BMI) is calculated to decide the fitness of person.

Height and weight measurement is one of the major aspects of the recruitment process of Defense and Police. Thousands of candidates appear for this recruitment process in which the height and weight is measured by traditional method. This process is very cumbersome and time consuming. To mitigate this problem, an efficient method is proposed to speed-up the process of Height and weight measurement during recruitment process of Defense and Police.

In this project, a webcam is used to take the snap of person whose height is to be measured. The platform is designed to stand the person under which the weight sensors are placed. This sensor generates an analog output equivalent to weight of the person. Using analog to digital convertor and microcontroller this signal will be converted to equivalent weight.

Fig: Height Measurement System

$$\text{BMI} = \frac{\text{mass(kg)}}{(\text{height(m)})^2}$$



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