CORRELATION BETWEEN HUMAN PHYSIOLOGICAL CONDITIONS WITH AGE

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ABSTRACT

The project undertaken was to carry out a study on the correlation between the human physiological conditions with age. In this project, the proposed study was to determine whether the human physiological conditions are contributing factor to the age of human. The human physiological conditions that was considered were:

1. Weight
2. Height
3. Blood pressure
4. Fat level
5. Body Impedance

In order to undertake this project, some medical equipment were procured in order to obtain data for body impedance, fat level, weight, height and blood pressure. To measure the body impedance as accurately as possible a suitable hardware was designed. As gold probe were not available, silver probe were used, as the connector and the electrode that had been used were silver chloride.

A sample of 100 male and female respondents was selected for various ages. Each respondent was provided with a respondent profile sheet as shown in appendix D.

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CHAPTER 1
INTRODUCTION

1.1 Introduction

In this project, the data of 100 male and female respondents was taken. The data for human physiological were blood pressure, body impedance, fat level, weight and height.

Blood pressure was measured using Automated Indirect Blood Pressure Measurement Techniques. The means that systolic and diastolic readings were determined in order to access the health of the patients in term of low or high blood pressure. Body impedance was measured from right and left hand by using silver chloride electrode. The reading was taken using digital multimeter. Body fat level was measured using Omron Body Fat Monitor, which sends an extremely weak (approximately 500uA and 50 KHz) electric current through the body. The reading was taken in terms of body fat percentage (%) and body fat mass (Kg) from the respondents. The weight was measured by using the electronic personal scale and the height was determined in meter by using meter scale.

The Minitab software was used to analyze the data in order to check the correlation between human physiological conditions with age.

1.2 Project Scope

The main consideration in this project included:

a) To design a suitable hardware to measure human body impedance using non-invasive techniques.
b) To measure human physiological data such as blood pressure, fat level, height, weight, age and body impedance.