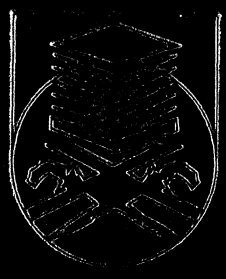

HEART RATE MEASUREMENT

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"We declare that this report entitled "**HEART RATE MEASUREMENT**" is the result of my own group research except as cited in the references. The report has not been accepted previously and concurrently submitted for any other diploma or award at uitm or other institutions.

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ABSTRACT

Health life style is very important to every person especially in this modern era that technologies are a part of human life. Without a healthy life style, we actually will be suffering in this world from every kind of diseases. Without health care in everyday live, the heart might be failure or not function well because of disease such as high blood pressure, etc. To overcome this problem, heart rate measurement are created. This project describes the design of a simple, low-cost microcontroller based heart rate measuring device. The result display at LCD. Heart rate measurement device in this project for measure from finger using IR sensor.IR sensor act as transmitter and photodiode receive signal from transmitter. The photo diode is a receiver. Heart rate device shows direct proportional characteristics with change in blood volume during heart beats can be measured. In this project used two-stage high gain, active low pass filter using operational amplifier(Op-amp) to filter and amplify the signal to appropriate voltage level so that the pulses can be counted by a microcontroller.. This project use PIC16877A as microcontroller to connect to LCD and two stage filter. In project, we set the formulea to count the heart rate by placing fingertip on sensor for 10 second and the result multiplied with 6 for get one minute heart beat.

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All praises for allah S.W.T the Lord Almighty and Salam to Nabi Muhammad S.A.W.

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TABLE OF CONTENTS