ABSTRACT

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Microcontroller-Based Oxygen Saturation and Heart Rate Measurement Tool
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(xii+34+Appendix)

Lack of oxygen in the body can cause the body to tire easily, tired and sleepy, this is because oxygen acts as a source of energy for the body in addition to nutrition. One tool that can diagnose a person's body lacking oxygen is an oximeter. Usually on the oximeter screen there will be two numbers that have different meanings. Numbers marked with %SpO2 indicate oxygen saturation in the blood, while numbers indicated with the letters HR (heart rate) indicate the number of beats or heartbeat. Normal heart rate in adults is between 60-100 beats per minute. If it is slower or faster than the above range, further investigation is required to determine the cause. While oxygen saturation is in the range of 96-100%. In this research, a tool will be made to measure oxygen saturation and heart rate besides an oximeter. This study aims to create a Web Server-Based Oxygen Saturation and Heart Rate Measurement System and contains a Web Server-Based Oxygen Saturation and Heart Rate Measurement system design in the form of flowcharts and system block diagrams as well as coding in accordance with the analysis and design. The output uses a Web Server, which aims to make it easier for humans to monitor the condition of the human body remotely while connected to Wifi, the output can be viewed using a smartphone or PC according to what the user is using.

Bibliography (2002 – 2015)