

## **ABSTRACT**

*Respiratory rate is the total number of breaths or breathing cycles, which occur every minute. Abnormal respiratory rate is a sensitive indicator for disease sufferers who need immediate health care. In this study the Respiration per Minutes value uses a 2.2 flex sensor placed on the human abdomen that detects changes in the diaphragm of the human stomach during breathing. The measurement results will be displayed on LCD 2 x 16 and will be sent to Android to display values and graphics via a Bluetooth connection. The results of the comparison between the measuring instrument with the manual have an error with the highest value of 4.69% while the lowest error value is 1.52%. The average error is 2.83%. It can be concluded that the tool is feasible because it is still below the minimum error threshold of 10%.*

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**Keywords - Respiration rate; Sensor flex 2.2; Android; Bluetooth**