

CALCULATING BMI BY MEASURING THE HEIGHT AND WEIGHT

PROBLEM STATEMENT:

Based on the calculation of Height and Weight indicating the physical health status of the individuals. An accurate record of the patient's height and weight is essential for calculating dosage of drugs, anesthetics, and contrast agents; assessing nutritional status; and determining the height-weight ratio (BMI). BMI is an estimate of body fat and good gauge of your risk for diseases that can occur with more body fat. The higher the BMI, the higher your risk for certain diseases, high blood pressure, type 2 diabetes, breathing problems, and certain cancers.

The problems facing while calculating height and weight by traditional ways

- 1. It is not accurate and precise.*
- 2. The person who read the measurement may read it wrong with a big error.*
- 3. The person records the measurements may record with big errors.*
- 4. To measure we need help from others.*

OBJECTIVES:

The main objective of the project is to design the portable BMI calculator. Likewise the project aim in very accurate of height and weight to avoid BMI calculation errors.

FUNCTIONAL REQUIREMENTS:

Automatic BMI calculator using Ultrasonic sensors and Load Cells

- 1. Ultrasonic sensor: The system uses ultrasonic sensor for height measurement.*
- 2. Load cells: The system uses the Load cells for calculating the weight.*
- 3. Microcontroller: The system uses Microcontroller based circuit to get values for height and weight.*
- 4. LCD: The system display the values of Height, Weight and BMI using LCD display.*
- 5. Connecting wires: TO make the connections by using connecting wires.*
- 6. Buzzer and Buttons: The Buzzer is used for indicating depend on the requirement.*

The Button is used for on or off the device.

- 7. Regulated power supply: It is used to give power to the system.*

INPUT:

Human Being

OUTPUT:

Height,Weight,BMI

USAGE:

- 1.Calculating BMI using Height and Weight is a measure for indicating nutritional status in individuals.*
- 2.The proposed BMI calculator using Height and Weight indicates that can be used in hosipatals,homes,industries etc.*

Block diagram:

