

***ARDUINO BASED AUTOMATIC BLOOD PRESSURE
MEASUREMENT TOOLS WITH IOT BASED DATA TRANSFER***

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ABSTRACT

Blood pressure devices with a database system feature were designed to help patients of high blood pressure in recording data from periodic checks.

This device was designed using MPX5050DP sensor functioning as instrument of air pressure contained in the cuff. The values of the pressure measurement were obtained from the air entering the MPX5050DP sensor displayed on the graph to determine systolic and diastolic pressures. The reading graph shows the constant frequency at the time the pulse is read. The frequency obtained was processed in Arduino Uno microcontroller thus it gets the reading results.

The blood pressure reading results then are recapitulated into a programmed database through PHPMyAdmin or other databases for historical data analysis. To send data to the database, NodeMCU was used as a liaison between the hardware and the database.

Keywords : Blood Pressure, Arduino, MPX5050DP, database