



RNS Institute of Technology

(VTU Affiliated, AICTE Approved, NAAC 'A' Grade Accredited)

Dr. Vishnuvardhan Road, Channasandra, RR Nagar Post, Bengaluru – 560098

Department of Electronics and Instrumentation Engineering

(NBA Accredited for the Academic Years 2018-19, 2019-20, 2020-21 and 2021-22)

Project: IoT Enabled Monitoring Aid for Bronchial Asthmatic Patients

Title	IoT Enabled Monitoring Aid for Bronchial Asthmatic Patients	
Student's name	1RN17EI020 1RN17EI021 1RN17EI025 1RN17EI045	Pragathi.P Pragna N Rithika Shenoy Yuktha.M
Guide	Mrs. Sneha G C	
Year	2020-2021	

Patients suffering from asthma needs to avoid those environmental conditions which trigger and aggravate the conditions. The project “IoT Enabled Monitoring Aid for Bronchial Asthmatic Patients”, aims at supporting asthmatic patients by monitoring certain parameters like heartbeat, body temperature, pollutants in environment and humidity, the system monitors the parameter and raise alarm to patient and also sends alarm to relatives when the patient is in distressed state.

The objective of the project is to analyze the trigger factor of asthma. Perform multiple functions that enable a physician to monitor the patient's condition and to provide continuous care. The system consists of two parts: one is the band part and the second is the inhaler part. The system uses IoT instruments like wrist band with sensors, Arduino board and load cell. The band part gathers the data of the patient and sends it to doctor and relatives through cloud. The inhaler part is used to keep the track of the inhaler dosage.

The system meter's the dosage of inhaler used and alerts the patient for replenishing the inhaler. Healthy person records a heartbeat of 70 to 75 BPM (beats per minute). During asthmatic attacks the heartbeat goes beyond 75 BPM and the sensors in wrist band senses the changes and communicates the data to mobile app. The mobile app sends an alert message to the patient and to his relatives regarding the variation and continues to monitoring until it stabilizes. Inhaler discharges are sensed by the load cell during every discharge, when the count reaches safety stock level it gives an alert to the patients for refilling.