



RNS INSTITUTE OF TECHNOLOGY

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

(UG programs – CSE, ECE, ISE, EIE and EEE have been Accredited by NBA

for the Academic Years 2018-19, 2019-20 and 2020-21)

Channasandra, Dr. Vishnuvardhan Road, Bengaluru - 560 098

Department of Electronics & Communication Engg.

PROJECT ON

NEONATAL INTENSIVE CARE UNIT

Submitted by Nisha Radhakrishna Bhat 1RN18EC109, Sahana V Padukone 1RN18EC135, Sinchana A N 1RN18EC155, Tejaswini R 1RN18EC164

Under the Guidance of

Mrs Pavithra M

Advancement in technology has led to many innovations across all sectors globally. Especially in the field of medicine and healthcare, we have come a long way from where we were decades ago. Unfortunately, these innovation and technology are unavailable at a wider range, even if available they are unaffordable for many. One such existent innovation that has been unaffordable to a majority population of the globe has been the Neonatal Intensive Care Unit. The idea and implementation of which dates back to as early as 17th to 18th century. A similar model to the NICU unit that we see today has been existing since the 1960s. Even after more than half a century today, the costs of the NICU for the general public is on the higher end. This project aims to breakdown the features of a typical NICU model, implement each of these sub features individually into sub models, and lastly integrate the sub models into a single device using arduino UNO. By doing so the basic important features are kept for implementation, thus reducing the cost and yet maintaining the efficiency. In our project we have addressed four of the vital features of the NICU. (i)ventilator (ii)incubator (iii)humidifier (iv) IV Drip (v) Heart rate monitoring system (vi) Lung capacity calculator. All the medical equipment are in the project are attached to mechanical or wire attachments and finally integrated using the ESP8266 Wi-fi module.

Awards :

1. 2021 BIT winners 1250/-
2. 2021 DBIT First place 10,000/-
3. 2021 IEEE YESIST First place 2,000/-