

Heart Diagnosis Requirement Predictor

*A Project Report Submitted in Partial Fulfillment of the Requirements for the
Degree of*

Bachelors Degree in Computer Science & Engineering

by

Sujoy Das

gau-c-17/054

Prastuti Koch

gau-c-17/289

Shivam Gupta

gau-c-17/071

Supervised by:

Sanjib Narzary

Assistant Professor



Department of Computer Science and Engineering
CENTRAL INSTITUTE OF TECHNOLOGY KOKRAJHAR

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Abstract

Abstract text here....

Approval

The Project Report “Heart Diagnosis Requirement Predictor” submitted by Sujoy Das (gau-c-17/054), Prastuti Koch (gau-c-17/289) and Shivam Gupta (gau-c-17/071) to the Department of Computer Science & Engineering, Central Institute of Technology, Kokrajhar, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Technology in Computer Science & Engineering and approved as to its style and contents.

Board of Examiner’s Name, Signature, and Date:

.....

(Board Member 1)

Date:

(Board Member 2)

Date:

(Board Member 3)

Date:

Supervisor’s Signature and Date:

.....

Sanjib Narzary

Date:

Declaration

We, hereby, declare that the work presented in this Thesis / Project is the outcome of the investigation performed by us under the supervision of Sanjib Narzary, Assistant Professor, Department of Computer Science & Engineering, Central Institute of Technology, Kokrajhar. We also declare that no part of this Project and thereof has been or is being submitted elsewhere for the award of any degree or Diploma.

Signature and Date:

.....

Sujoy Das

Date:

.....

Prastuti Koch

Date:

.....

Shivam Gupta

Date:

Dedicated to ...

Acknowledgments

Acknowledgement text here...

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1 Introduction

Introduction text here...

1.1 Motivation

Motivation text here...

1.2 Sensors

1. ESP8266 12E wi-fi/Node MCU
2. 4/8/16 channel Relay Board
3. USB TTL Serial Adapter
4. PIR Motion sensors

1.2.1 Thermostats and HVAC controls

Common thermostats and HVAC controls are:

- Humidity sensing and control
- Temperature sensors and controllers
- Weather stations and sensors

1.2.2 Example Figure

An example figure insertion is presented in Figure 1.1.

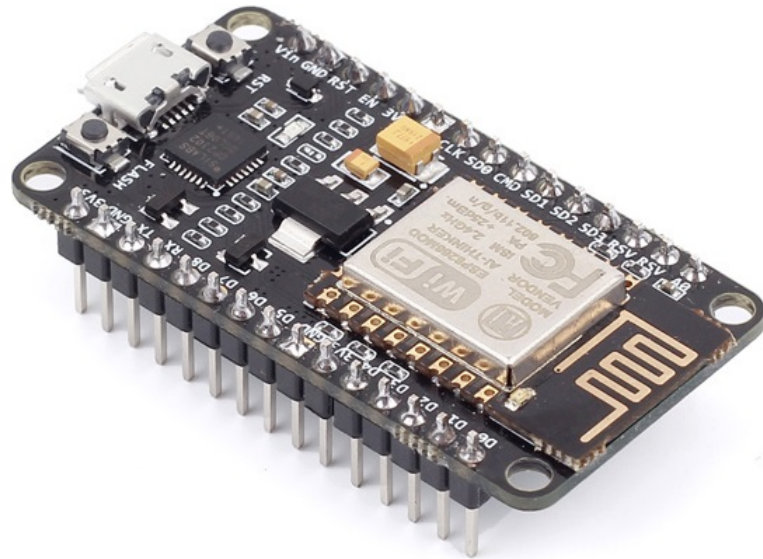


Figure 1.1: NodeMCU Microcontroller

1.2.3 Example Referencing

An example of inserting references in latex `[?] [?]`.

1.3 Chapter Summary

In this chapter,

2 Literature Review

Chapter introductory text here ...

2.1 Background Study

Refer all background study like here [?]. Few more references inserted here [?] [?]. Web sites can also be put as reference like here [?].

2.1.1 Android-based Home Automation

An example of Android-based home automation system [?] is presented in Figure 2.1.



Figure 2.1: Android-based home automation system

2.2 Chapter Summary

In this chapter,

3 System Design

Chapter introductory text here ...

3.0.1 Pin Definition

In the Figure 3.1, the pin definition of NodeMCU [?] is shown and in the Table 3.1 a detailed pin description is given.

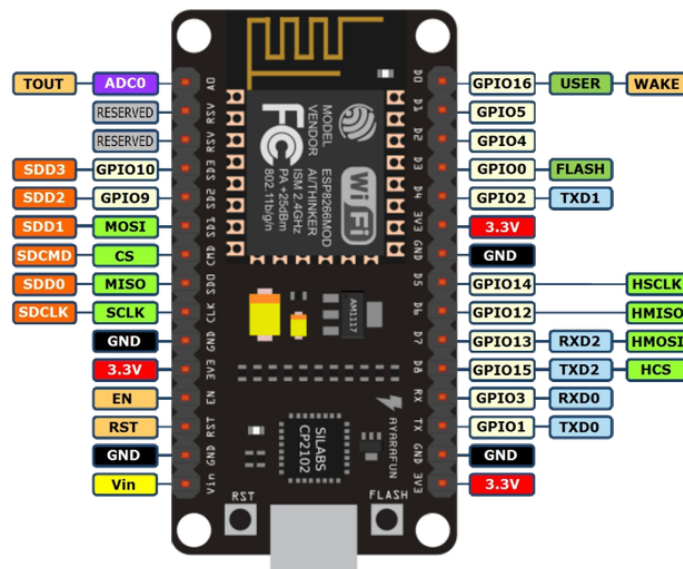


Figure 3.1: Pin Definition of NodeMCU

3.1 Parameter

The NodeMCU parameters are listed in Table 3.2.

Table 3.1: Pin Description of NodeMCU

Pin	Name	Type	Function
1	VDDA	P	Analog Power 3.02 ~3.6 V
2	LNA	I/O	RF Antenna Interface. Chip Output Impedance=50Ω No matching required but we recommend that the π -type matching network is retained.
3	VDD3P3	P	Analog Power 3.02 ~3.6 V
4	VDD3P3	P	Analog Power 3.02 ~3.6 V
5	VDD3P3	P	Analog Power 3.02 ~3.6 V
6

Table 3.2: Parameters of NodeMCU

Categories	Items	Values
Wi-Fi Parameters	certificates	FCC/CE/TELEC/SRRC
	WiFi Protocols	802.11 b/g/n
	Frequency Range	2.4G-2.5G (2400M-2483.5M)
	TX Power	802.11 b: +20 dBm
		802.11 g: +17 dBm
		802.11 n: +14 dBm
	RX Sensitivity	802.11 b: -91 dbm (11 Mbps)
		802.11 g: -75 dbm (54 Mbps)
		802.11 n: -72 dbm (MCS7)
Hardware Parameters	Types of Antenna	PCB Trace, External, IPEX Connector, Ceramic Chip
	TX Power	UART/SDIO/SPI/I2C/ I2S/IR Remote Control
		GPIO/PWM
	Operating Voltage	3.0 3.6V
	Operating Current	Average value: 80mA
	Operating Temperature Range	-40 125
	Ambient Temperature Range	Normal temperature
	Package Size	5x5mm
	External Interface	N/A

3.2 Chapter Summary

In this chapter, ...

4 Implementation

Chapter introductory text here ...

4.1 Implementation

...

4.1.1 Configuration Code

Sample configuration code is presented in

Listing 4.1: NodeMCU Configuration Code

```
1 #define BLYNK_PRINT Serial
2 #include <ESP8266WiFi.h>
3 #include <BlynkSimpleEsp8266.h>
4
5 char auth[] = "YourAuthToken";
6
7 char ssid[] = "YourNetworkName";
8 char pass[] = "YourPassword";
9 void setup()
10 {
11   Serial.begin(115200);
12   Blynk.begin(auth, ssid, pass);
13 }
14 void loop()
15 { Blynk.run(); }
```

4.2 Chapter Summary

In this chapter, ...

5 Conclusion

Conclusion text here ...

5.1 Limitations

...

5.2 Future Works

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