

Heart Diagnosis Requirement Predictor

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

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Abstract

Abstract text here....

Approval

The Project Report “Thesis / Project Report Name” submitted by STUDENTNAME ID: STUDENTID, STUDENTNAME ID: STUDENTID, to the Department of Computer Science & Engineering, Stamford University Bangladesh, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science (Hons) in Computer Science & Engineering and approved as to its style and contents.

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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 Supervisor Name, Supervisor Designation, Department of Computer Science & Engineering, Stamford University Bangladesh. 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.

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Acknowledgments

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Table of Contents

List of Figures	1
List of Tables	2
1: Introduction	3
1.1 Motivation	3
1.2 Sensors	3
1.2.1 Thermostats and HVAC controls	3
1.2.2 Example Figure	4
1.2.3 Example Referencing	4
1.3 Chapter Summary	4
2: Literature Review	5
2.1 Background Study	5
2.1.1 Android-based Home Automation	5
2.2 Chapter Summary	5
3: System Design	6
3.0.1 Pin Definition	6
3.1 Parameter	6
3.2 Chapter Summary	8

4: Implementation	9
4.1 Implementation	9
4.1.1 Configuration Code	9
4.2 Chapter Summary	10
5: Conclusion	11
5.1 Limitations	11
5.2 Future Works	11

List of Figures

1.1	NodeMCU Microcontroller	4
2.1	Android-based home automation system	5
3.1	Pin Definition of NodeMCU	6

List of Tables

3.1	Pin Description of NodeMCU	7
3.2	Parameters of NodeMCU	7

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.

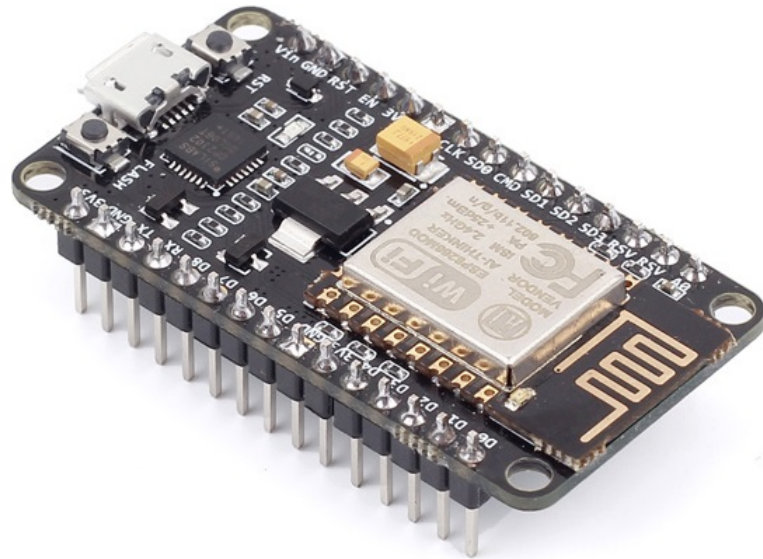


Figure 1.1: NodeMCU Microcontroller

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.

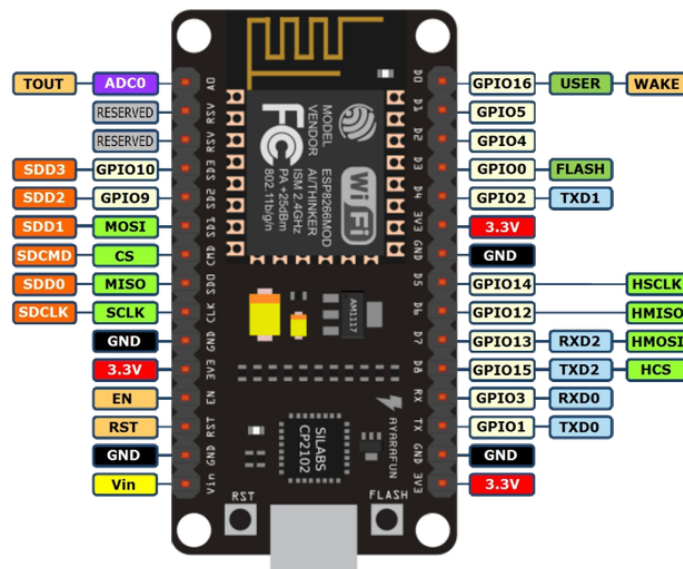


Figure 3.1: Pin Definition of NodeMCU

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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