Xi'an Jiaotong-Liverpool University
西交利物浦大学

DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING

EEE311 Final Year Project

Title of your FYP Project

In Partial Fulfillment
of the Requirements for the Degree
Bachelor of Engineering

Student Name : Your Name
Student ID : Your student ID
Supervisor : Your supervisor's name
Assessor : Your accessor's name

Abstract

Write your abstract here

Contents

Chapter 1

Introduction

This is the introduction. Do ensure that you include relevant references in under this section. Some examples of references are found in [**?**, **?**]. This is explained in [**?**, **?**, **?**]. This is just an example, the variable x. This is described in

$$E = mc^2$$

$$E = mc^2$$

$$\begin{aligned} P_1 &= 5 && (1.1)\\ P_2 &= 6\{7 \\ P_3 &= 57\& \quad 46 && (1.2)\\ P_4 &= \frac{1}{2} && (1.3) \end{aligned}$$

This is 5 V. This is **N**

Chapter 2

Methodology

Describe your method here: the Asymptote and Matlab programming languages that you use in this project.

2.1 Asymptote

This is for Asymptote

2.2 Matlab

This is for Matlab kdflk Figure 2.1.

2.3 Item List

Here are three examples of item lists:

- This is item 1
- This is item 2
- This is item 3
- This is item 4

1. This is one
2. This is two
3. This is three

1. This is one
2. This is two

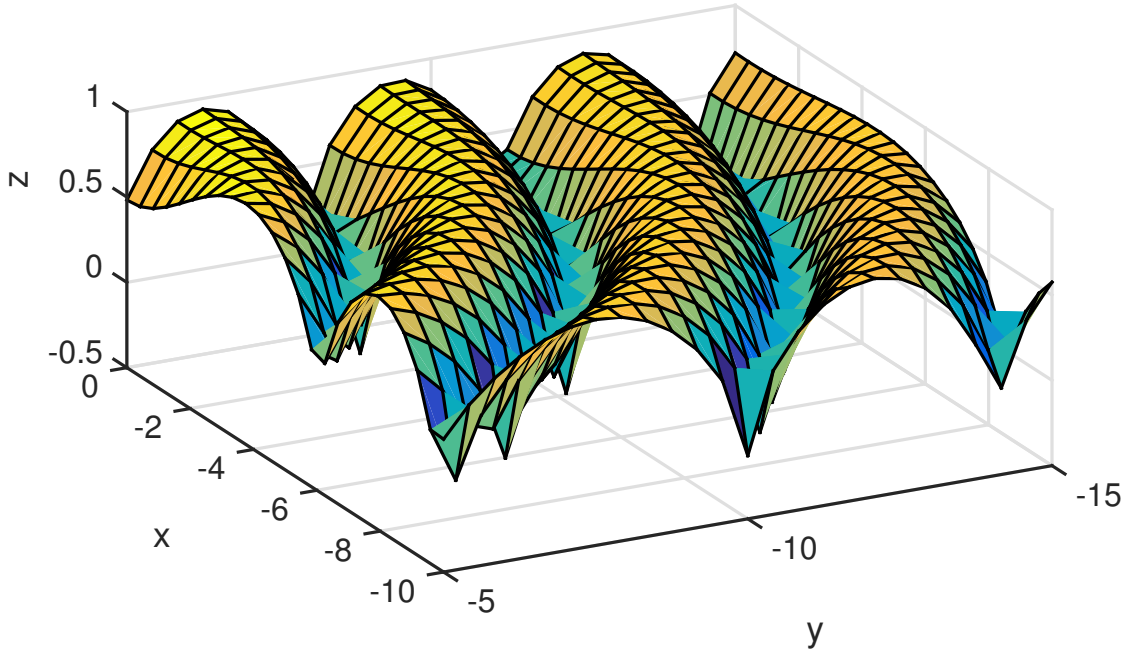

Figure 2.1: The tracing chip

3. This is three

   - sjdkf sdf
   - lksdjfklsj sd
   - f ksdjfk sdfkjk sdf
   - skldfjk sdfsdfs

One ksjdk sdkfk

second skdfk sdkfj kjsdfk ksjdfkjkksdfkj

third k ksdfjksdj fkjskdfjksdf

Chapter 3

Result and Discussion

Make sure you write something here before you begin with the subsection.

3.1 Figure

A sample of figure is given as Figure 2.1

3.2 Table

Include table whenever necessary. An example is given as Table

3.3 Justification via Matlab

This is where you can prove that the results obtained are accurate and valid

3.4 Comparison

Comparison is also necessary to justify your results.

Chapter 4

Improvement

Describe the improvements that you have done in this project.

Chapter 5

Conclusion

Here comes the conclusion!

Appendices

The whole codes:

```
#include<IRremote.h>
#include<Wire.h>
#include <LiquidCrystal_I2C.h>
LiquidCrystal_I2C lcd(0x27, 16, 2);



int RECV_PIN = 11;
IRrecv irrecv(RECV_PIN);
decode_results results;

int AIN1 = 6; //PWMA
int AIN2 = 5; //DIRA
int BIN1 = 10; //PWMB
int BIN2 = 9; //DIRB
int sensorPin = A0;
int ledPin = 13;
int sensorValue = 0;



int melody[] = {330, 330, 330, 262, 392, 200, 280};
int noteDurations[] = {8, 4, 4, 8, 4, 4, 6};

void setup()
{
pinMode(AIN1, OUTPUT);
pinMode(AIN2, OUTPUT);
pinMode(BIN1, OUTPUT);
pinMode(BIN2, OUTPUT);
pinMode(ledPin, OUTPUT);
Serial.begin(9600);


}
}
```

```
%Justification via Matlab of function 36%
clc;clear;
```

```
syms x y Fx Fy A B C D;
z=100*(x-y^2)^2+(1-x)^2+10.1*(y-1)^2
Fx=diff(z,x)
Fy=diff(z,y)
S=solve(Fx,Fy);
x1=S.x
y1=S.y
A=diff(z,x,2)
B=diff(diff(z,x),y)
C=diff(z,y,2)
D=A*C-B^2
D1=subs(subs(D,'x',x1(1)),'y',y1(1))
A1=subs(subs(A,'x',x1(1)),'y',y1(1))
Z1=subs(subs(z,'x',x1(1)),'y',y1(1))
```