ECE 445

Senior Design Laboratory

Individual Progress Report

Project #114

AN AWESOME PROJECT MADE BY AN AMAZING TEAM

Team #514

San Zhang
sanz0@illinois.edu

Si Li
sil0@illinois.edu

Dawu Wang
dawu@example.com

English Member
englishm0@illinois.edu

TA: Hello World
Sponsor: Your Professor

December 8, 2023

Abstract

Put your abstract here

Keywords Keyword 1, keyword 2, keyword 3

Contents

1 Introduction

1.1 Problem statement

This is a sample document of this template, and here comes citation. You can cite [1], [2] and [3]. However, putting citation at the end of a sentence is also acceptable [4].

1.2 Importance

$$f(x) = \sum_{n=0}^{\infty} \frac{1}{n!} f^{(n)}(x_0)(x - x_0)^n, x \in U(x_0) \tag{1.1}$$

$$\begin{aligned} e^{ix} &= 1 + ix + \frac{1}{2!}(ix)^2 + \frac{1}{3!}(ix)^3 + \cdots \frac{1}{n!}(ix)^n + \cdots \\ &= 1 + ix - \frac{1}{2!}x^2 - i\frac{1}{3!}x^3 + \frac{1}{4!}x^4 + i\frac{1}{5!}x^5 - \cdots \\ &= \left(1 - \frac{1}{2!}x^2 + \frac{1}{4!}x^4 - \cdots\right) + i\left(x - \frac{1}{3!}x^3 + \frac{1}{5!}x^5 - \cdots\right) \\ &= \cos x + i \sin x \end{aligned} \tag{1.2}$$

1.3 Literature Review

This is a sample listing.

```
#include<stdio.h>
void fuzzy(int x){
    return x;
}
int main(){
    int a = 0, b, c;
    scanf("%d", &b);
    c = b;
    if (a == b)
        a = fuzzy(c);
    else
        b = fuzzy(a);
    printf("%d␣%d\n", a, fuzzy(c));
    return 0;
}
```

2 Methodology

Test the ability[1] to print some units, say (in texts), $10 \times 10^5\,\mu\text{m} \cdot \Omega \cdot {}^\circ$.
It also applies to equations,

$$R_t = 10 \times 10^5\,\mu\text{m} \cdot \Omega \cdot {}^\circ \tag{2.1}$$

[1]This is an example footnote.

3 Results

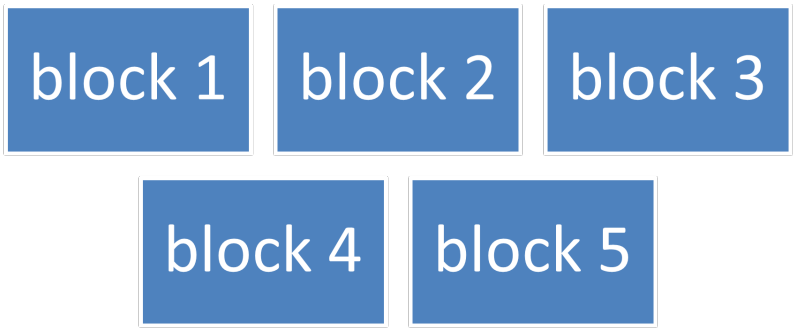

Figure 3.1 An example figure.

4 Discussion

5 Conclusion

References

[1] F. Author1 and S. Author2, *Random Book*. Publisher, 2022.

[2] F. Author3 and S. Author4, "Random journal paper," *Journal of Randomness*, vol. 10, no. 2, pp. 100–120, 2021.

[3] F. Author7 and S. Author8, *New Book*. Publisher, 2023.

[4] F. Author5 and S. Author6. "Random webpage." (2020), [Online]. Available: https://www.example.com (visited on 01/01/2022).

A Example

An example piece of code:

```
from numpy import *
from scipy import *

# plot some random plots of a random variable
def plot_random():
    import matplotlib.pyplot as plt
    plt.plot(random.randn(100))
    plt.show()

# call the plotting function
plot_random()
```

A.1 Some Test Data

A.2 Derivation of Square Law

Acknowledgement

Thank you thank you!