ECE 445

SENIOR DESIGN LABORATORY

FINAL REPORT

Project #114

A SAMPLE FOR FINAL REPORT

Team #514

张　三　San Zhang
sanz0@illinois.edu

李　四　Si Li
sil0@illinois.edu

English Member
englishm0@illinois.edu

TA: The name of your TA
Sponsor: The name of your sponsor

The date of the report

ABSTRACT

Put your abstract here

Keywords Keyword 1, keyword 2, keyword 3

CONTENTS

Abstract i
1 Introduction 1
1.1 Problem statement 1
1.2 Importance 1
1.3 Literature Review 1
2 Methodology 2
3 Results 3
4 Discussion 4
5 Conclusion 5
References 6
A An Appendix 7
B Another Appendix 8
Acknowledgement 9

1 INTRODUCTION

1.1 Problem statement

Lorem ipsum dolor sit amet, consectetuer adipiscing elit. Ut purus elit, vestibulum ut, placerat ac, adipiscing vitae, felis. Curabitur dictum gravida mauris. Nam arcu libero, nonummy eget, consectetuer id, vulputate a, magna. Donec vehicula augue eu neque. Pellentesque habitant morbi tristique senectus et netus et malesuada fames ac turpis egestas. Mauris ut leo. Cras viverra metus rhoncus sem. Nulla et lectus vestibulum urna fringilla ultrices. Phasellus eu tellus sit amet tortor gravida placerat. Integer sapien est, iaculis in, pretium quis, viverra ac, nunc. Praesent eget sem vel leo ultrices bibendum. Aenean faucibus. Morbi dolor nulla, malesuada eu, pulvinar at, mollis ac, nulla. Curabitur auctor semper nulla. Donec varius orci eget risus. Duis nibh mi, congue eu, accumsan eleifend, sagittis quis, diam. Duis eget orci sit amet orci dignissim rutrum.[1], [2].

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

Nam dui ligula, fringilla a, euismod sodales, sollicitudin vel, wisi. Morbi auctor lorem non justo. Nam lacus libero, pretium at, lobortis vitae, ultricies et, tellus. Donec aliquet, tortor sed accumsan bibendum, erat ligula aliquet magna, vitae ornare odio metus a mi. Morbi ac orci et nisl hendrerit mollis. Suspendisse ut massa. Cras nec ante. Pellentesque a nulla. Cum sociis natoque penatibus et magnis dis parturient montes, nascetur ridiculus mus. Aliquam tincidunt urna. Nulla ullamcorper vestibulum turpis. Pellentesque cursus luctus mauris.[1], [3], [4].

2 METHODOLOGY

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

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

3 RESULTS

4 DISCUSSION

5 CONCLUSION

REFERENCES

[1] Y. Li and J. Fang, "测量半导体中少子漂移迁移率和扩散长度的新方法 [New Method of Determining Excess Carrier Bipolar Mobility]," 半导体学报 *[Chinese Journals of Semiconductors]*, vol. 20, no. 12, pp. 1129–1131, Dec. 1999. [Online]. Available: http://www.jos.ac.cn/fileBDTXB/oldPDF/2005092734449173.pdf.

[2] J. R. Haynes and W. Shockley, "The Mobility and Life of Injected Holes and Electrons in Germanium," *Physical Review*, vol. 81, no. 5, pp. 835–843, Mar. 1, 1951. DOI: 10.1103/PhysRev.81.835.

[3] J. A. Prufrock, *Lasers and Their Applications in Surface Science and Technology*, 2nd ed. New York, NY: McGraw-Hill, 2009.

[4] J. R. Haynes and W. Shockley, "Investigation of Hole Injection in Transistor Action," *Physical Review*, vol. 75, no. 4, pp. 691–691, Feb. 15, 1949. DOI: 10.1103/PhysRev.75.691.

A AN APPENDIX

B ANOTHER APPENDIX

ACKNOWLEDGEMENT