

ART OF EMBEDDED SYSTEM DESIGN

Bobby

2018 年 2 月 9 日

In these book, I will summerize all I know about the embedded system, and give some practical electronic designs what I have done in my career. Also, I want to improve the ability of using \LaTeX by myself. This book is in the public domain. All the copyrights are under GPL 2.0. Thanks all for your attentions! All the materials are from books, internet, etc. I will list as much references as possible, but I am not sure that I can list all. For any improper or defects, your suggurestions are warmly welcomed.

Best Regards!

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第一部分

Physics

第一章 Solid state physics

In this chapter, will discuss the solid state physics, mainly about the basic fundamentals.

$$a + b + c = b + c + a$$

第二章 Semiconductor physics

表 2.1: 国家

中国	美国	英国	日本	加拿大
11	1	12	4	6

Table2.1 indicate that

The universe is immense and it seems to be homogeneous, in a large scale, everywhere we look at.

furnished his toy with a romantic legend about a much larger "Tower of Brahma", which supposedly has 64 disks of pure gold Gold —wow.

Are our disks made of concrete? resting on three diamond needles. At the beginning of time, he said, "God" placed these golden disks on the first needle and ordained that a group of priests should transfer them to the third, according to the rules above. The priests reportedly work day and night at their task. When they finish, the Tower will crumble and the world will end.

resting on three diamond needles. At the beginning of time, he said, "God" placed these golden disks on the first needle and ordained that a group of priests should transfer them to the third, according to the rules above. The priests reportedly work day and night at their task. When they finish, the Tower will crumble and the world will end.

Table2.1 is stupid and in the coming

This is my key2. This is my second palace that has a key.

参阅 [3]

bibliography

greenwade93 [1]

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carbon nanotube [3]

carbon [4]

transistors [5]

第二部分

Circuit basics

第三章 Circuit

A balanced circuit is circuitry for use with a balanced line or the balanced line itself. Balanced lines are a common method of transmitting many types of electrical communication signals between two points on two wires. In a balanced line the two signal lines are of a matched impedance to help ensure that interference induced in the line is common-mode and can be removed at the receiving end by circuitry with good common-mode rejection. To maintain the balance, circuit blocks which interface to the line, or are connected in the line, must also be balanced

第三部分

Analog circuit

第四部分

Analog VLSI design

第四章 Current source

$$\frac{d}{dx}(\int_0^x f(u) du) = f(x)$$



图 4.1:

第五章 Current mirror

第六章 Differential amplifier pair

第七章 OP AMP design

第五部分

Digital circuit

第八章 Finite state machine

第六部分

Analog digital converter

第九章 ADC

9.1 ADC

9.1.1 ADC

ADC

$$\frac{1}{2}\frac{1}{2}$$

$$\frac{1}{2}\frac{1}{2}$$

this is main text¹

Benjamin Franklin² is one of the greatest stateman in the world.

$$x = a + b + c +$$

$$d + e + f + g \tag{9.1}$$

$$a = b + c + d \tag{9.2}$$

$$x = y + z \tag{9.3}$$

$$y = \begin{cases} -x & x < 0 \\ x & x \geq 0 \end{cases}$$

¹this is a footnote

²see doc autobiograpy of benjamin


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Manual of pdfscreen.sty v

C. V. Radhakrishnan

cvr@river-valley.com

April 28, 2000

Abstract

pdfscreen.sty package helps to redesign the pdf output of normal documents fit to be read in a computer monitor while maintaining the freedom to format it for conventional printing. This has been brought about by redefining the margins and page header and related dimension to fit the dimensions of the computer monitor. By changing the options to print you can switch the package to format the document in the conventional way as your computer dictates.

1. Setup

An elaborative manual is not needed for using pdfscreen.sty. It is nothing but an extension of the hyperref.sty of Sebastian Raupach.

Manual of pdfscreen.sty v.1.2

C. V. Radhakrishnan

cvr@river-valley.com

April 28, 2000

Abstract

pdfscreen.sty package helps to redesign the pdf output of your

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Verilog HDL

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PCB design

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Digital image processing

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Audio signal processing

第二十五部分

Modal analysis

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Project Development

第二十七部分

Appendix

第十四章 Basic mathematics

14.1 Formulas

$$a + b = b + a$$

appendix test

第二十八部分

References

第十五章 References

`www.baidu.com`

`www.github.com`

`www.google.com`

Bing

This is my key. This is my second palace that has a key.

By default, where appropriate, citations are abbreviated automatically after the first reference when bibliographies are produced by BibT E X. Provision is also made for this feature to be accessed during manual coding

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