



# Low-Power CMOS VLSI Circuit Design

By Kaushik Roy, Sharat Prasad

Download now

Read Online ➔

## Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad

A comprehensive look at the rapidly growing field of low-power VLSI design

Low-power VLSI circuit design is a dynamic research area driven by the growing reliance on battery-powered portable computing and wireless communications products. In addition, it has become critical to the continued progress of high-performance and reliable microelectronic systems. This self-contained volume clearly introduces each topic, incorporates dozens of illustrations, and concludes chapters with summaries and references. VLSI circuit and CAD engineers as well as researchers in universities and industry will find ample information on tools and techniques for design and optimization of low-power electronic systems.

Topics include:

- \* Fundamentals of power dissipation in microelectronic devices
- \* Estimation of power dissipation due to switching, short circuit, subthreshold leakage, and diode leakage currents
- \* Design and test of low-voltage CMOS circuits
- \* Power-conscious logic and high-level synthesis
- \* Low-power static RAM architecture
- \* Energy recovery techniques
- \* Software power estimation and optimization

↓ [Download Low-Power CMOS VLSI Circuit Design ...pdf](#)

📄 [Read Online Low-Power CMOS VLSI Circuit Design ...pdf](#)

# Low-Power CMOS VLSI Circuit Design

*By Kaushik Roy, Sharat Prasad*

**Low-Power CMOS VLSI Circuit Design** By Kaushik Roy, Sharat Prasad

A comprehensive look at the rapidly growing field of low-power VLSI design

Low-power VLSI circuit design is a dynamic research area driven by the growing reliance on battery-powered portable computing and wireless communications products. In addition, it has become critical to the continued progress of high-performance and reliable microelectronic systems. This self-contained volume clearly introduces each topic, incorporates dozens of illustrations, and concludes chapters with summaries and references. VLSI circuit and CAD engineers as well as researchers in universities and industry will find ample information on tools and techniques for design and optimization of low-power electronic systems.

Topics include:

- \* Fundamentals of power dissipation in microelectronic devices
- \* Estimation of power dissipation due to switching, short circuit, subthreshold leakage, and diode leakage currents
- \* Design and test of low-voltage CMOS circuits
- \* Power-conscious logic and high-level synthesis
- \* Low-power static RAM architecture
- \* Energy recovery techniques
- \* Software power estimation and optimization

## **Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad Bibliography**

- Sales Rank: #2413052 in Books
- Published on: 2000-02-22
- Original language: English
- Number of items: 1
- Dimensions: 9.72" h x .86" w x 6.44" l, 1.56 pounds
- Binding: Hardcover
- 376 pages

 [Download Low-Power CMOS VLSI Circuit Design ...pdf](#)

 [Read Online Low-Power CMOS VLSI Circuit Design ...pdf](#)

## **Editorial Review**

### **Review**

"This is a highly recommended book for all academic engineering libraries." (E-Streams, Vol. 4, No. 8, August 2001)

### **From the Back Cover**

A comprehensive look at the rapidly growing field of low-power VLSI design

Low-power VLSI circuit design is a dynamic research area driven by the growing reliance on battery-powered portable computing and wireless communications products. In addition, it has become critical to the continued progress of high-performance and reliable microelectronic systems. This self-contained volume clearly introduces each topic, incorporates dozens of illustrations, and concludes chapters with summaries and references. VLSI circuit and CAD engineers as well as researchers in universities and industry will find ample information on tools and techniques for design and optimization of low-power electronic systems. Topics include:

- Fundamentals of power dissipation in microelectronic devices
- Estimation of power dissipation due to switching, short circuit, subthreshold leakage, and diode leakage currents
- Design and test of low-voltage CMOS circuits
- Power-conscious logic and high-level synthesis
- Low-power static RAM architecture
- Energy recovery techniques
- Software power estimation and optimization

### **About the Author**

KAUSHIK ROY is a professor in the School of Electrical and Computer Engineering at Purdue University, West Lafayette, Indiana.

SHARAT C. PRASAD is a system architecture (hardware) engineer with Cisco Systems.

## **Users Review**

### **From reader reviews:**

#### **Alyssa Cox:**

Book is definitely written, printed, or descriptive for everything. You can learn everything you want by a guide. Book has a different type. To be sure that book is important factor to bring us around the world. Next to that you can your reading proficiency was fluently. A reserve Low-Power CMOS VLSI Circuit Design will make you to always be smarter. You can feel more confidence if you can know about anything. But some of you think in which open or reading some sort of book make you bored. It's not make you fun. Why they may be thought like that? Have you looking for best book or acceptable book with you?

**Marie Griffin:**

As people who live in the modest era should be revise about what going on or details even knowledge to make these individuals keep up with the era and that is always change and move ahead. Some of you maybe will certainly update themselves by looking at books. It is a good choice for you personally but the problems coming to a person is you don't know which one you should start with. This Low-Power CMOS VLSI Circuit Design is our recommendation to make you keep up with the world. Why, because book serves what you want and need in this era.

**David Lussier:**

Often the book Low-Power CMOS VLSI Circuit Design has a lot info on it. So when you make sure to read this book you can get a lot of profit. The book was written by the very famous author. The writer makes some research previous to write this book. This specific book very easy to read you will get the point easily after reading this article book.

**Valerie Herrera:**

Do you have something that you want such as book? The e-book lovers usually prefer to decide on book like comic, short story and the biggest an example may be novel. Now, why not trying Low-Power CMOS VLSI Circuit Design that give your fun preference will be satisfied through reading this book. Reading behavior all over the world can be said as the way for people to know world better then how they react in the direction of the world. It can't be claimed constantly that reading behavior only for the geeky man or woman but for all of you who wants to end up being success person. So , for every you who want to start studying as your good habit, you could pick Low-Power CMOS VLSI Circuit Design become your current starter.

**Download and Read Online Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad #EN7GRJ8UW1P**

## **Read Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad for online ebook**

Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad books to read online.

### **Online Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad ebook PDF download**

**Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad Doc**

**Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad Mobipocket**

**Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad EPub**

**EN7GRJ8UW1P: Low-Power CMOS VLSI Circuit Design By Kaushik Roy, Sharat Prasad**