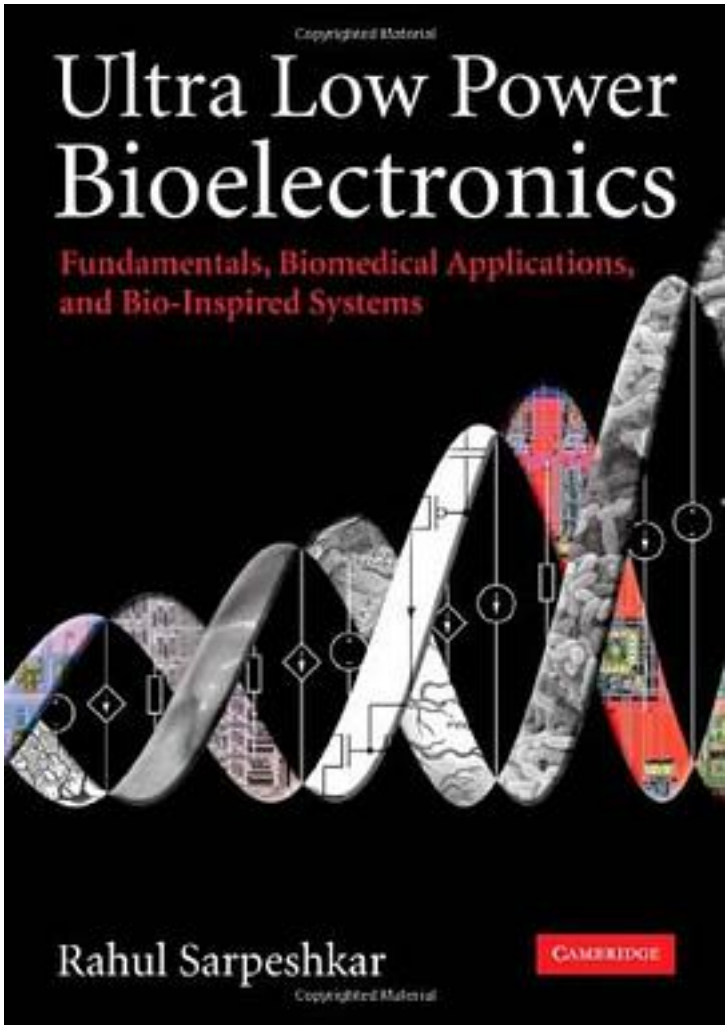
Ultra Low Power Bioelectronics



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This book provides, for the first time, a broad and deep treatment of the fields of both

ultra low power electronics and bioelectronics. It discusses fundamental principles and circuits for ultra low power electronic design and their applications in biomedical systems. It also discusses how ultra energy efficient cellular and neural systems in biology can inspire revolutionary low power architectures in mixed-signal and RF electronics. The book presents a unique, unifying view of ultra low power analog and digital electronics and emphasizes the use of the ultra energy efficient subthreshold regime of transistor operation in both. Chapters on batteries, energy harvesting, and the future of energy provide an understanding of fundamental relationships between energy use and energy generation at small scales and at large scales. A wealth of insights and examples from brain implants, cochlear implants, bio-molecular sensing, cardiac devices, and bio-inspired systems make the book useful and engaging for students and practicing engineers.

作者介绍:

目录:

标签

bio-inspired

IC

VLSI

评论

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书评

很久没有那么兴奋了。 ==========
这本书带给我的不但是联系起来Razavi, Gray, Baker的CMOS IC design.也给了我关于系统级的思考。关于如果trade off和intuition.Sarpeshakar和Razavi对电路的intuition不同。Sarpeshkar是从bio的角度来看，多条路子，多个视...

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