# Analog Cmos Integrated Circuits Mcgraw Hill Education

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**Design of CMOS Phase-Locked Loops** Behzad Razavi 2019-12-31 This modern, pedagogic textbook from leading author Behzad Razavi provides a comprehensive and rigorous introduction to CMOS PLL design, featuring intuitive presentation of theoretical concepts, extensive circuit simulations, over 200 worked examples, and 250 end-of-chapter problems. The perfect text for senior undergraduate and graduate students.
**Design of Analog CMOS Integrated Circuits** Behzad Razavi 2016-03
2003 IEEE Conference on Electron Devices and Solid-State Circuits 2003 The proceedings from the 2003 IEEE Conference on Electron Devices and Solid-State Circuits.
*High Performance CMOS Range Imaging* Andreas Süss 2016-03-24 This work is dedicated to CMOS based imaging with the emphasis on the noise modeling, characterization and optimization in order to contribute to the design of high performance imagers in general and range imagers in particular. CMOS is known to be superior to CCD due to its flexibility in terms of integration capabilities, but typically has to be
*CMOS Analog and Mixed-Signal Circuit Design* Arjuna Marzuki 2020-05-12 The purpose of this book is to provide a complete working knowledge of the Complementary Metal-Oxide Semiconductor (CMOS) analog and mixed-signal circuit design, which can be applied for System on Chip (SOC) or Application-Specific Standard Product (ASSP) development. It begins with an introduction to the CMOS analog and mixed-signal circuit design with further coverage of basic devices, such as the Metal-Oxide Semiconductor Field-Effect Transistor (MOSFET) with both long- and short-channel operations, photo devices, fitting ratio, etc. Seven chapters focus on the CMOS analog and mixed-signal circuit design of amplifiers, low power amplifiers, voltage regulator-reference, data converters, dynamic analog circuits, color and image sensors, and peripheral (oscillators and Input/Output [I/O]) circuits, and Integrated Circuit (IC) layout and packaging. Features: Provides practical knowledge of CMOS analog and mixed-signal circuit design Includes recent research in CMOS color and image sensor technology Discusses sub-blocks of typical analog and mixed-signal IC products Illustrates several design examples of analog circuits together with layout Describes integrating based CMOS color circuit
**Charge-based CMOS Digital RF Transmitters** Pedro Emiliano Paro Filho 2016-09-27 This book introduces a completely novel architecture that can relax the trade-off existing today between noise, power and area consumption in a very suitable solution for advanced wireless communication systems. Through the combination of charge-domain operation with incremental signaling, this architecture gives the best of both worlds, providing the reduced area and high portability of digital-intensive architectures with an improved out-of-band noise performance given by intrinsic noise filtering capabilities. Readers will be enabled to design higher performance radio front-ends that consume less power and area, especially with respect to the transmitter and power amplifier designs, considered by many the “battery killers” on most mobile devices.
Education Management, Education Theory and Education Application Yuanzhi Wang 2011-10-09 This volume includes extended and revised versions of a set of selected papers from the 2011 2nd International Conference on Education and Educational Technology (EET 2011) held in Chengdu, China, October 1-2, 2011. The mission of EET 2011 Volume 2 is to provide a forum for researchers, educators, engineers, and government officials involved in the general areas of education management, education theory and education application to disseminate their latest research results and exchange views on the future research directions of these fields. 133 related topic papers were selected into this volume. All the papers were reviewed by 2 program committee members and selected by the volume editor Prof. Yuanzhi Wang, from Intelligent Information Technology Application Research Association, Hong Kong. The conference will bring together leading researchers, engineers and scientists in the domain of interest. We hope every participant can have a good opportunity to exchange their research ideas and results and to discuss the state of the art in the areas of the education management, education theory and education application.
*□□CMOS□□□□□□(□□□□□□□□——□□□□□□(□□□))* Behzad Razavi 2005 □□ □□□□□□□□□□□□□□, □□□CMOS□□□□□□□□□□□□□□□□, □□□MOS□□□□□□□□□□ □□□.
**Innovation in Electrical Power Engineering, Communication, and Computing Technology** Manohar Mishra 2021-12-15 This book features selected high-quality papers from the Second International Conference on Innovation in Electrical Power Engineering, Communication, and Computing Technology (IEPCCT 2021), held at Siksha 'O' Anusandhan (Deemed to be University), Bhubaneswar, India, on 24–26 September 2021. Presenting innovations in power, communication, and computing, it covers topics such as mini, micro, smart and future power grids; power system economics; energy storage systems; intelligent control; power converters; improving power quality; signal processing; sensors and actuators; image/video processing; high-performance data mining algorithms; advances in deep learning; and optimization methods.
VLSI-SoC: Research Trends in VLSI and Systems on Chip Giovanni De Micheli 2010-08-23 This book contains extended and revised versions of the best papers presented during the fourteenth IFIP TC 10/WG 10.5 International Conference on Very Large Scale Integration. This conference provides a forum to exchange ideas and show industrial and academic research results in microelectronics design. The current trend toward increasing chip integration and technology process advancements brings about stimulating new challenges both at the physical and system-design levels.
**Technological Developments in Education and Automation** Magued Iskander 2010-01-30 Technological Developments in Education and Automation includes set of rigorously reviewed world-class manuscripts dealing with the increasing role of technology in daily lives including education and industrial automation Technological Developments in Education and Automation contains papers presented at the International Conference on Industrial Electronics, Technology & Automation and the International Conference on Engineering Education, Instructional Technology, Assessment, and E-learning which were part of the International Joint Conferences on Computer, Information and Systems Sciences and Engineering
**Analysis and Design of Transimpedance Amplifiers for Optical Receivers** Eduard Säckinger 2017-10-09 "An up-to-date, comprehensive guide for advanced electrical engineering studentsand electrical engineers working in the IC and optical industries"--
*Low-Power Analog Techniques, Sensors for Mobile Devices, and Energy Efficient Amplifiers* Kofi A. A. Makinwa 2019-01-28 This book is based on the 18 invited tutorials presented during the 27th

workshop on Advances in Analog Circuit Design. Expert designers from both industry and academia present readers with information about a variety of topics at the frontiers of analog circuit design, including the design of analog circuits in power-constrained applications, CMOS-compatible sensors for mobile devices and energy-efficient amplifiers and drivers. For anyone involved in the design of analog circuits, this book will serve as a valuable guide to the current state-of-the-art. Provides a state-of-the-art reference in analog circuit design, written by experts from industry and academia; Presents material in a tutorial-based format; Covers the design of analog circuits in power-constrained applications, CMOS-compatible sensors for mobile devices and energy-efficient amplifiers and drivers.

Neuromorphic Photonics Paul R. Prucnal 2017-05-08 This book sets out to build bridges between the domains of photonic device physics and neural networks, providing a comprehensive overview of the emerging field of "neuromorphic photonics." It includes a thorough discussion of evolution of neuromorphic photonics from the advent of fiber-optic neurons to today's state-of-the-art integrated laser neurons, which are a current focus of international research. Neuromorphic Photonics explores candidate interconnection architectures and devices for integrated neuromorphic networks, along with key functionality such as learning. It is written at a level accessible to graduate students, while also intending to serve as a comprehensive reference for experts in the field.

**High-Speed Photodiodes in Standard CMOS Technology** Sasa Radovanovic 2006-10-11 High-speed Photodiodes in Standard CMOS Technology describes high-speed photodiodes in standard CMOS technology which allow monolithic integration of optical receivers for short-haul communication. For short haul communication the cost aspect is important , and therefore it is desirable that the optical receiver can be integrated in the same CMOS technology as the rest of the system. If this is possible then ultimately a singe-chip system including optical inputs becomes feasible, eliminating EMC and crosstalk problems, while data rate can be extremely high. The problem of photodiodes in standard CMOS technology it that they have very limited bandwidth, allowing data rates up to only 50Mbit per second. High-speed Photodiodes in Standard CMOS Technology first analyzes the photodiode behaviour and compares existing solutions to enhance the speed. After this, the book introduces a new and robust electronic equalizer technique that makes data rates of 3Gb/s possible, without changing the manufacturing technology. The application of this technique can be found in short haul fibre communication, optical printed circuit boards, but also photodiodes for laser disks.

**5G and E-Band Communication Circuits in Deep-Scaled CMOS** Marco Vigilante 2018-02-07 This book discusses design techniques, layout details and measurements of several key analog building blocks that currently limit the performance of 5G and E-Band transceivers implemented in deep-scaled CMOS. The authors present recent developments in low-noise quadrature VCOs and tunable inductor-less frequency dividers. Moreover, the design of low-loss broadband transformer-based filters that realize inter-stage matching, power division/combining and impedance transformation is discussed in great detail. The design and measurements of a low-noise amplifier, a downconverter and a highly-linear power amplifier that leverage the proposed techniques are shown. All the prototypes were realized in advanced nanometer scaled CMOS technologies without RF thick to metal option.

**Test und Selbsttest von Analogen Auswerteelektroniken bei Sensorsystemen in der Betriebsphase** Stephan Latzel 2008

**Microelectronics, Communication Systems, Machine Learning and Internet of Things** Vijay Nath 2022-07-11 This volume presents peer-reviewed papers of the First International Conference on Microelectronics, Communication Systems, Machine Learning, and the Internet of Things (MCMI-2020). This book discusses recent trends in technology and advancement in microelectronics, nano-electronics, VLSI design, IC technologies, wireless communications, optical communications, SoC, advanced instrumentations, signal processing, internet of things, machine learning, image processing, green energy, hybrid vehicles, weather forecasting, cloud computing, renewable energy, CMOS sensors, actuators, RFID, transducers, real-time embedded system, sensor network and applications, EDA design tools and techniques, fuzzy logic & artificial intelligence, high-performance computer architecture, AI-based robotics & applications, brain-computer interface, deep learning, advanced operating systems, supply chain development & monitoring, physical systems design, ICT applications, e-farming, information security, etc. It includes original papers based on theoretical, practical, experimental, simulations, development, application, measurement, and testing. The applications and solutions discussed in the book will serve as good reference material for young scholars, researchers, and academics.

**Fundamentals of Layout Design for Electronic Circuits** Jens Lienig 2020-03-19 This book covers the fundamental knowledge of layout design from the ground up, addressing both physical design, as generally applied to digital circuits, and analog layout. Such knowledge provides the critical awareness and insights a layout designer must possess to convert a structural description produced during circuit design into the physical layout used for IC/PCB fabrication. The book introduces the technological know-how to transform silicon into functional devices, to understand the technology for which a layout is targeted (Chap. 2). Using this core technology knowledge as the foundation, subsequent chapters delve deeper into specific constraints and aspects of physical design, such as interfaces, design rules and libraries (Chap. 3), design flows and models (Chap. 4), design steps (Chap. 5), analog design specifics (Chap. 6), and finally reliability measures (Chap. 7). Besides serving as a textbook for engineering students, this book is a foundational reference for today's circuit designers.

*Radio-Frequency Digital-to-Analog Converters* Morteza S Alavi 2016-11-18 With the proliferation of wireless networks, there is a need for more compact, low-cost, power efficient transmitters that are capable of supporting the various communication standards, including Bluetooth, WLAN, GSM/EDGE, WCDMA and 4G of 3GPP cellular. This book describes a novel idea of RF digital-to-analog converters (RFDAC) and demonstrates how they can realize all-digital, fully-integrated RF transmitters that support all the current multi-mode and multi-band communication standards. With this book the reader will: Understand the challenges of realizing a universal CMOS RF transmitter Recognize the design issues and the advantages and disadvantages related to analog and digital transmitter architectures Master designing an RF transmitter from system level modeling techniques down to circuit designs and their related layout know-hows Grasp digital polar and I/Q calibration techniques as well as the digital predistortion approaches Learn how to generate appropriate digital I/Q baseband signals in order to apply them to the test chip and measure the RF-DAC performance. Highlights the benefits and implementation challenges of software-defined transmitters using CMOS technology Includes various types of analog and digital RF transmitter architectures for wireless applications Presents an all-digital polar RFDAC transmitter architecture and describes in detail its implementation Presents a new all-digital I/Q RFDAC transmitter architecture and its implementation Provides comprehensive design techniques from system level to circuit level Introduces several digital predistortion techniques which can be used in RF transmitters Describes the entire flow of system modeling, circuit simulation, layout techniques and the measurement process

**Ultra-low Voltage Low Power Active-RC Filters and Amplifiers for Low Energy RF Receivers** Lucas Compassi Severo

Resistor-based Temperature Sensors in CMOS Technology Sining Pan

**Implantable Sensors and Systems** Guang-Zhong Yang 2018-03-27 Implantable sensing, whether used for transient or long-term monitoring of in vivo physiological, bio-electrical, bio-chemical and metabolic changes, is a rapidly advancing field of research and development. Underpinned by increasingly small, smart and energy efficient designs, they become an integral part of surgical prostheses or implants for both acute and chronic conditions, supporting optimised, context aware sensing, feedback, or stimulation with due consideration of system level impact. From sensor design, fabrication, on-node processing with

application specific integrated circuits, to power optimisation, wireless data paths and security, this book provides a detailed explanation of both the theories and practical considerations of developing novel implantable sensors. Other topics covered by the book include sensor embodiment and flexible electronics, implantable optical sensors and power harvesting. Implantable Sensors and Systems – from Theory to Practice is an important reference for those working in the field of medical devices. The structure of the book is carefully prepared so that it can also be used as an introductory reference for those about to enter into this exciting research and developing field.

**Proceeding of the Second International Conference on Microelectronics, Computing & Communication Systems (MCCS 2017)** Vijay Nath 2018-07-30 The volume presents high quality papers presented at the Second International Conference on Microelectronics, Computing & Communication Systems (MCCS 2017). The book discusses recent trends in technology and advancement in MEMS and nanoelectronics, wireless communications, optical communication, instrumentation, signal processing, image processing, bioengineering, green energy, hybrid vehicles, environmental science, weather forecasting, cloud computing, renewable energy, RFID, CMOS sensors, actuators, transducers, telemetry systems, embedded systems, and sensor network applications. It includes original papers based on original theoretical, practical, experimental, simulations, development, application, measurement, and testing. The applications and solutions discussed in the book will serve as a good reference material for future works.

**Thin Film Transistor Circuits and Systems** Reza Chaji 2013-08-29 A comprehensive review of the design challenges associated with building thin-film transistor circuits and systems and how to overcome them.

**Design of Analog Cmos Integrated Circuits** Razavi 2016-03-01 This textbook deals with the analysis and design of analog CMOS integrated circuits, emphasizing recent technological developments and design paradigms that students and practicing engineers need to master to succeed in today's industry. Based on the author's teaching and research experience in the past ten years, the text follows three general principles: (1) Motivate the reader by describing the significance and application of each idea with real-world problems; (2) Force the reader to look at concepts from an intuitive point of view, preparing him/her for more complex problems; (3) Complement the intuition by rigorous analysis, confirming the results obtained by the intuitive, yet rough approach.

**Power-Efficient High-Speed Parallel-Sampling ADCs for Broadband Multi-carrier Systems** Yu Lin 2015-05-07 This book addresses the challenges of designing high performance analog-to-digital converters (ADCs) based on the “smart data converters” concept, which implies context awareness, on-chip intelligence and adaptation. Readers will learn to exploit various information either a-priori or a-posteriori (obtained from devices, signals, applications or the ambient situations, etc.) for circuit and architecture optimization during the design phase or adaptation during operation, to enhance data converters performance, flexibility, robustness and power-efficiency. The authors focus on exploiting the a-priori knowledge of the system/application to develop enhancement techniques for ADCs, with particular emphasis on improving the power efficiency of high-speed and high-resolution ADCs for broadband multi-carrier systems.

**Efficient Design of Variation-Resilient Ultra-Low Energy Digital Processors** Hans Reyserhove 2019-03-27 This book enables readers to achieve ultra-low energy digital system performance. The author’s main focus is the energy consumption of microcontroller architectures in digital (sub)-systems. The book covers a broad range of topics extensively: from circuits through design strategy to system architectures. The result is a set of techniques and a context to realize minimum energy digital systems. Several prototype silicon implementations are discussed, which put the proposed techniques to the test. The achieved results demonstrate an extraordinary combination of variation-resilience, high speed performance and ultra-low energy.

**High-Speed Optical Receivers with Integrated Photodiode in Nanoscale CMOS** Filip Tavernier 2011-06-20 This book describes the design of optical receivers that use the most economical integration technology, while enabling performance that is typically only found in very expensive devices. To achieve this, all necessary functionality, from light detection to digital output, is integrated on a single piece of silicon. All building blocks are thoroughly discussed, including photodiodes, transimpedance amplifiers, equalizers and post amplifiers.

Proceeding of Fifth International Conference on Microelectronics, Computing and Communication Systems Vijay Nath 2021-09-09 This book presents high-quality papers from the Fifth International Conference on Microelectronics, Computing & Communication Systems (MCCS 2020). It discusses the latest technological trends and advances in MEMS and nanoelectronics, wireless communication, optical communication, instrumentation, signal processing, image processing, bioengineering, green energy, hybrid vehicles, environmental science, weather forecasting, cloud computing, renewable energy, RFID, CMOS sensors, actuators, transducers, telemetry systems, embedded systems and sensor network applications. It includes papers based on original theoretical, practical and experimental simulations, development, applications, measurements and testing. The applications and solutions discussed here provide excellent reference material for future product development.

**Electronics, Electrical Engineering and Information Science** Jian Wang 2016-03-07 This book consists of one hundred and seventeen selected papers presented at the 2015 International Conference on Electronics, Electrical Engineering and Information Science (EEEIS2015), which was held in Guangzhou, China, during August 07-09, 2015. EEEIS2015 provided an excellent international exchange platform for researchers to share their knowledge and results and to explore new areas of research and development. Global researchers and practitioners will find coverage of topics involving Electronics Engineering, Electrical Engineering, Computer Science, Technology for Road Traffic, Mechanical Engineering, Materials Science and Engineering Management. Experts in these fields contributed to the collection of research results and development activities. This book will be a valuable reference for researchers working in the field of Electronics, Electrical Engineering and Information Science. Contents: Electronics EngineeringElectrical EngineeringComputer Science and ApplicationTechnology for Road TrafficMechanical EngineeringMaterial Science and Material Processing TechnologyEngineering Management Readership: Researchers working in the field of Electronics, Electrical Engineering and Information Science.

*Simulation and Optimization of Digital Circuits* Vazgen Melikyan 2018-04-12 This book describes new, fuzzy logic-based mathematical apparatus, which enable readers to work with continuous variables, while implementing whole circuit simulations with speed, similar to gate-level simulators and accuracy, similar to circuit-level simulators. The author demonstrates newly developed principles of digital integrated circuit simulation and optimization that take into consideration various external and internal destabilizing factors, influencing the operation of digital ICs. The discussion includes factors including radiation, ambient temperature, electromagnetic fields, and climatic conditions, as well as non-ideality of interconnects and power rails.

**Microelectronic Implants for Central and Peripheral Nervous System: Overview of Circuit and System Technology** Morris (Ming-Dou) Ker 2022-01-11 Professor Ker is on the Board of Amazingneuron. The Other Topic Editors Declare no Competing Interests With Regards to the Research Topic Theme.

**Optical Fibers Telecommunications** Gary Osborne 2018-04-13 This book is structured into 12 chapters to facilitate a logical progression of material and to enable straightforward access to topics by providing the appropriate background and theoretical support. Chapter 1 gives a short introduction to optical fiber communications by considering the historical development, the general system and the major advantages provided by this technology. Chapter 2 discuss about the quality of service and telecommunication impairments. In Chapter 3 the concept of the optical fiber as a transmission medium is introduced using the simple ray theory approach. This is followed by discussion of electromagnetic wave theory applied to optical fibers prior to consideration of lightwave transmission within the various fiber types. In particular, single-mode fiber, together with a more recent

class of microstructured optical fiber, referred to as photonic crystal fiber, are covered in further detail. The major transmission characteristics of optical fibers are then dealt with in Chapter 4. Again there is a specific focus on the properties and characteristics of single-mode fibers including, in this third edition, enhanced discussion of single-mode fiber types, polarization mode dispersion, nonlinear effects and, in particular, soliton propagation. Chapters 5 and 6 deal with the various transmission and switching techniques. Also discuss the different transmission aspects of Voice Telephony. Chapter 7 describe the light sources employed in optical fiber communications. The other important semiconductor optical source, namely the light-emitting diode, is dealt with in Chapter 7. Chapter 8 discuss about the various design features of Optical Fibers for communication systems. Chapter 9 provides a general treatment of the major measurements which may be undertaken on optical fibers in both the laboratory and the field. The chapter is incorporated at this stage in the book to enable the reader to obtain a more complete understanding of optical fiber subsystems and systems prior to consideration of these issues. Chapter 10 on optical networks comprises an almost entirely new chapter for the third edition which provides both a detailed overview of this expanding field and a discussion of all the major aspects and technological solutions currently being explored. Chapter 11 discusses about the data communications methods. Chapter 12 dealt with the telecommunication lasers techniques

*Nonlinear RF Circuits and Nonlinear Vector Network Analyzers* Patrick Roblin 2011-06-02 With increasingly low-cost and power-efficient RF electronics demanded by today's wireless communication systems, it is essential to keep up to speed with new developments. This book presents key advances in the field that you need to know about and emerging patterns in large-signal measurement techniques, modeling and nonlinear circuit design theory supported by practical examples. Topics covered include: • Novel large-signal measurement techniques that have become available with the introduction of nonlinear vector network analyzers (NVNA), such as the LSNA, PNA-X and SWAP • Direct extraction of device models from large-signal RF dynamic loadlines • Characterization of memory effects (self-heating, traps) with pulsed RF measurements • Interactive design of power-efficient amplifiers (PA) and oscillators using ultra-fast multi-harmonic active load-pull • Volterra and poly-harmonic distortion (X-parameters) behavioral modeling • Oscillator phase noise theory • Balancing, modeling and poly-harmonic linearization of broadband RFIC modulators • Development of a frequency selective predistorter to linearize PAs

**Formal Techniques for Safety-Critical Systems** Cyrille Artho 2019-02-01 This book constitutes the refereed proceedings of the 6th International Workshop on Formal Techniques for Safety-Critical Systems, FTSCS 2018, held in Gold Coast, Australia in November 2018. The 10 revised full papers presented together with an abstract of an invited talk were carefully reviewed and selected from 22 submissions. The papers are organized in topical sections on analysis and verification of Safety-Critical Systems; analysis of timed systems; semantics and analysis methods, and model transformation.

*Education and Educational Technology* Yuanzhi Wang 2011-10-07 This volume includes extended and revised versions of a set of selected papers from the 2011 2nd International Conference on Education and Educational Technology (EET 2011) held in Chengdu, China, October 1-2, 2011. The mission of EET 2011 Volume 1 is to provide a forum for researchers, educators, engineers, and government officials involved in the general areas of education and educational technology to disseminate their latest research results and exchange views on the future research directions of these fields. 130 related topic papers were selected into this volume. All the papers were reviewed by 2 program committee members and selected by the volume editor Prof. Yuanzhi Wang, from Intelligent Information Technology Application Research Association, Hong Kong. The conference will bring together leading researchers, engineers and scientists in the domain of interest. We hope every participant can have a good opportunity to exchange their research ideas and results and to discuss the state of the art in the areas of the education and educational technology.

*Advanced Informatics for Computing Research* Ashish Kumar Luhach 2019-09-16 This two-volume set (CCIS 1075 and CCIS 1076) constitutes the refereed proceedings of the Third International Conference on Advanced Informatics for Computing Research, ICAICR 2019, held in Shimla, India, in June 2019. The 78 revised full papers presented were carefully reviewed and selected from 382 submissions. The papers are organized in topical sections on computing methodologies; hardware; information systems; networks; software and its engineering.

*Model and Design of Improved Current Mode Logic Gates* Kirti Gupta 2019-11-22 This book presents MOSFET-based current mode logic (CML) topologies, which increase the speed, and lower the transistor count, supply voltage and power consumption. The improved topologies modify the conventional PDN, load, and the current source sections of the basic CML gates. Electronic system implementation involves embedding digital and analog circuits on a single die shifting towards mixed-mode circuit design. The high-resolution, low-power and low-voltage analog circuits are combined with high-frequency complex digital circuits, and the conventional static CMOS logic generates large current spikes during the switching (also referred to as digital switching noise), which degrade the resolution of the sensitive analog circuits via supply line and substrate coupling. This problem is exacerbated further with scaling down of CMOS technology due to higher integration levels and operating frequencies. In the literature, several methods are described to reduce the propagation of the digital switching noise. However, in high-resolution applications, these methods are not sufficient. The conventional CMOS static logic is no longer an effective solution, and therefore an alternative with reduced current spikes or that draws a constant supply current must be selected. The current mode logic (CML) topology, with its unique property of requiring constant supply current, is a promising alternative to the conventional CMOS static logic.

*Wireless Networked Music Performance* Leonardo Gabrielli 2015-12-29 This book presents a comprehensive overview of the state of the art in Networked Music Performance (NMP) and a historical survey of computer music networking. It introduces current technical trends in NMP and technical issues yet to be addressed. It also lists wireless communication protocols and compares these to the requirements of NMP. Practical use cases and advancements are also discussed.