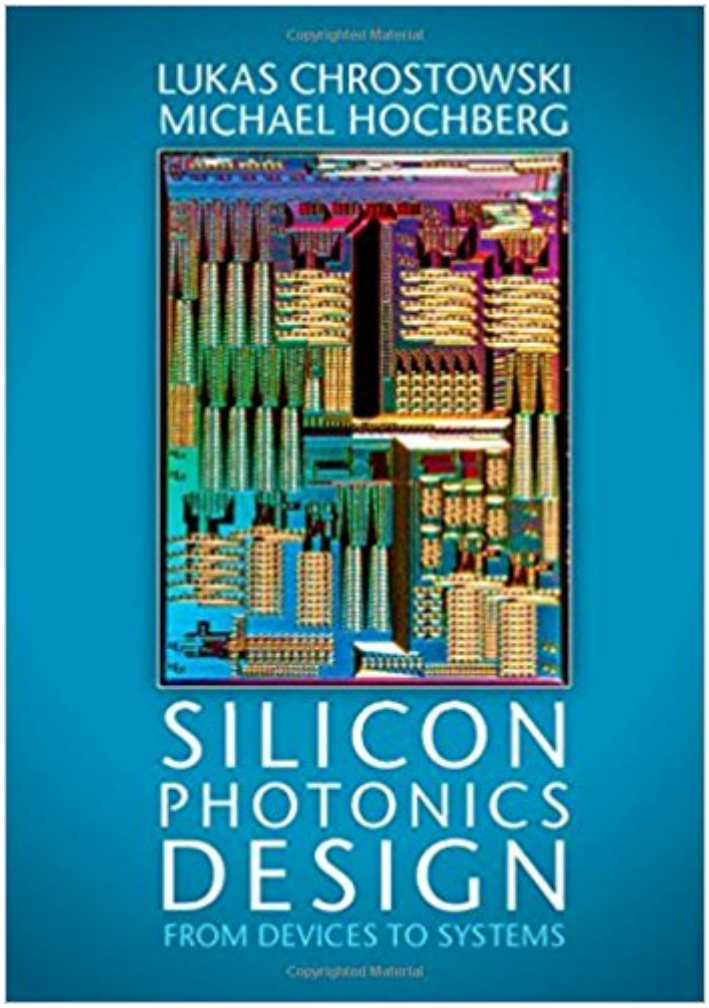
Silicon Photonics Design: From Devices To Systems



Synopsis

From design and simulation through to testing and fabrication, this hands-on introduction to silicon photonics engineering equips students with everything they need to begin creating foundry-ready designs. In-depth discussion of real-world issues and fabrication challenges ensures that students are fully equipped for careers in industry. Step-by-step tutorials, straightforward examples, and illustrative source code fragments guide students through every aspect of the design process, providing a practical framework for developing and refining key skills. Offering industry-ready expertise, the text supports existing PDKs for CMOS UV-lithography foundry services (OpSIS, ePIXfab, imec, LETI, IME and CMC) and the development of new kits for proprietary processes and clean-room based research. Accompanied by additional online resources to support students, this is the perfect learning package for senior undergraduate and graduate students studying silicon photonics design, and academic and industrial researchers involved in the development and manufacture of new silicon photonics systems.

Book Information

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Customer Reviews

"This publication’s wide variety of topics should stimulate people to read and discover the sensing potential of optical fiber and devices. This book is a comprehensive introduction to the field with a strong practical focus that undergraduate and graduate students will find useful. It could also serve as a reference for scientists and engineers who are working in the optical fiber sensing area." Lisa Tongning Li, Optics and Photonics News

From design and simulation through to testing and fabrication, this hands-on introduction to silicon photonics engineering equips students with everything they need to begin creating foundry-ready designs. The text offers step-by-step tutorials, straightforward examples, illustrative source code fragments, and in-depth discussion of real-world issues and fabrication challenges, while additional resources are provided online.

Excellent practical book for grad students, postdocs and professors alike.

This book is practically good not for theory.

Great book for photonic design!

The book has a few rough edges and sometimes gives the appearance of a hastily put together series of notes. However, it provides a 1st class introduction to a world of Silicon photonics in a subtle throwback style. Those old enough to have glanced through academic books that fed the imagination of passionate electronics scholars during the 70s/80s explosion in microelectronics technology may get that sense when reading the book.1 mighty tip: The University of British Columbia, Canada ran (still running?) a very interesting 8-week online course that cements the theory and methodology of Silicon Photonics design taught in this book. The organisation and delivery of this course was to my surprise more than simply outstanding. I sat through the course in 2015, the experience was wholesome and enlightening, and worth every penny!

Photonics) Graphic Design Success: Over 100 Tips for Beginners in Graphic Design: Graphic Design Basics for Beginners, Save Time and Jump Start Your Success (graphic ... graphic design beginner, design skills) US Army Technical Manual, ARMY DATA SHEETS FOR CARTRIDGES, CARTRIDGE ACTUATED DEVICES AND PROPELLANT ACTUATED DEVICES, FSC 1377, TM 43-0001-39, 1991 ISO 14971:2007, Medical devices - Application of risk management to medical devices ISO 14971:2000, Medical devices -- Application of risk management to medical devices Design of Biomedical Devices and Systems, Third Edition Design of Biomedical Devices and Systems Second edition Make It New: A History of Silicon Valley Design (MIT Press) Make It New: The History of Silicon Valley Design Fundamentals Of Information Systems Security (Information Systems Security & Assurance) - Standalone book (Jones & Bartlett Learning Information Systems Security & Assurance) Periodic Materials and Interference Lithography: For Photonics, Phononics and Mechanics