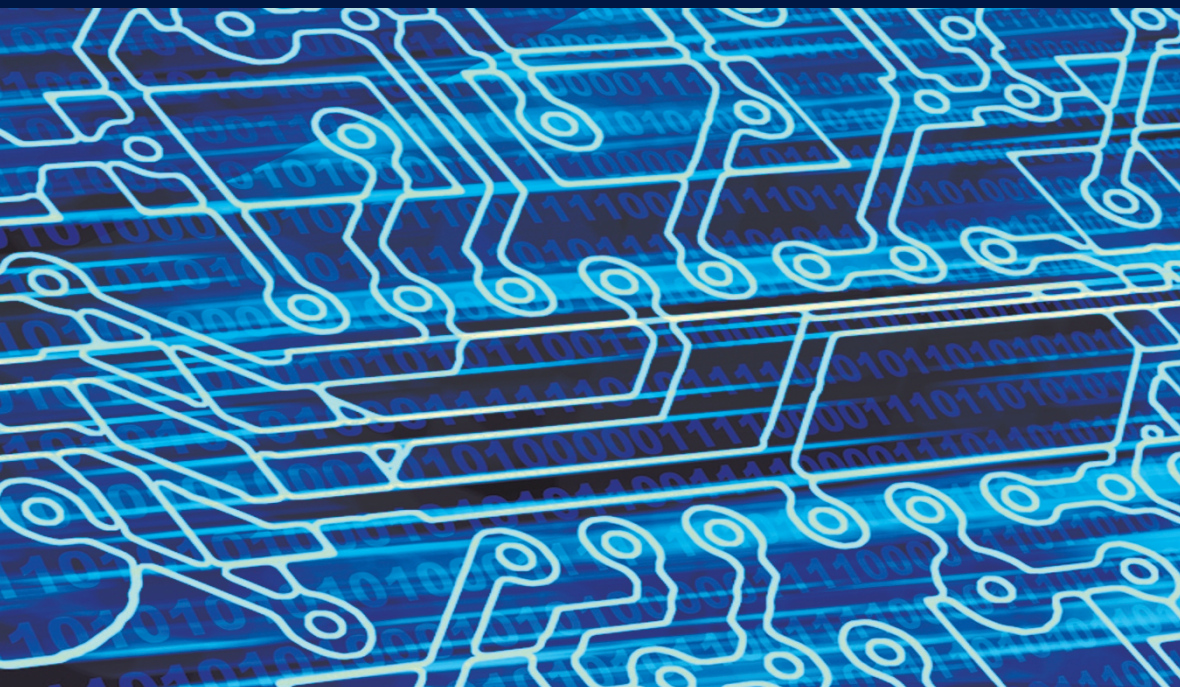


ELECTRONICS ENGINEERING SERIES

Digital Electronics 1

Combinational Logic Circuits

Tertulien Ndjountche



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The omnipresence of electronic devices in our everyday lives has been accompanied by the downscaling of chip feature sizes and the ever increasing complexity of digital circuits.

This book is devoted to the analysis and design of digital circuits, where the signal can assume only two possible logic levels. It deals with the basic principles and concepts of digital electronics. It addresses all aspects of combinational logic and provides a detailed understanding of logic gates that are the basic components in the implementation of circuits used to perform functions and operations of Boolean algebra. Combinational logic circuits are characterized by outputs that depend only on the actual input values.

Efficient techniques to derive logic equations are proposed together with methods of analysis and synthesis of combinational logic circuits. Each chapter is well structured and is supplemented by a selection of solved exercises covering logic design practices.

Tertulien Ndjountche received a PhD degree in electrical engineering from Erlangen-Nuremberg University in Germany. He has worked as a professor and researcher at universities in Germany and Canada. He has published numerous technical papers and books in his fields of interest.

Digital Electronics 1

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