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	Autore	Prasad R (Emeritus Professor of Physics)
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	Descrizione fisica	1 online resource (XVIII, 965 p. 838 illus., 276 illus. in color.)
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	Nota di contenuto	Part- I: Circuit Analysis -- Chapter 1 - Electrical Network Thorems and Their Applications -- Chapter 2 - Circuit analyses using Laplace transform -- Chapter 3 - First and second order circuits, Phasor and Fourier analysis -- Part- II: Analog Electronics -- Chapter 4 - Electrical properties of materials -- Chapter 5 - p-n junction diode: a basic non-linear device- Chapter 6 - Bipolar Junction (BJT) and Field Effect (FET) Transistor -- Chapter 7 - Feedback in amplifiers -- Chapter 8 - Operational Amplifier -- Part - III: Digital Electronics -- Chapter 9 - Electronic Signals and Logic Gates -- Chapter 10 - Some Applications of Logic Gates -- Chapter 11 -Special Circuits and Devices.
	Sommario/riassunto	This book introduces the foundations and fundamentals of electronic circuits. It broadly covers the subjects of circuit analysis, as well as analog and digital electronics. It features discussion of essential theorems required for simplifying complex circuits and illustrates their applications under different conditions. Also, in view of the emerging potential of Laplace transform method for solving electrical networks, a full chapter is devoted to the topic in the book. In addition, it covers the physics and technical aspects of semiconductor diodes and transistors, as well as discrete-time digital signals, logic gates, and combinational logic circuits. Each chapter is presented as complete as possible, without the reader having to refer to any other book or supplementary material. Featuring short self-assessment questions distributed throughout, along with a large number of solved examples,

supporting illustrations, and chapter-end problems and solutions, this book is ideal for any physics undergraduate lecture course on electronic circuits. Its use of clear language and many real-world examples make it an especially accessible book for students unfamiliar or unsure about the subject matter.