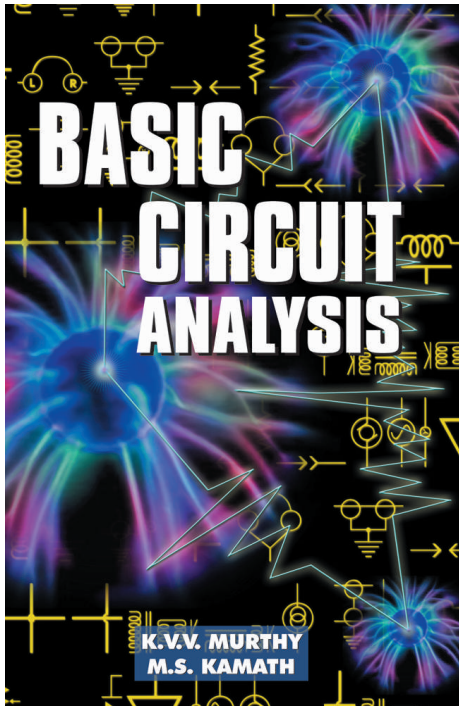


BASIC CIRCUIT ANALYSIS

K.V.V. Murthy & M.S. Kamath



The book provides a thorough understanding of the basic concepts, principles and techniques involved in circuit analysis. At the outset it is pointed out that the constraint equations due to KCL, KVL and Device characterizations essentially constitute the complete behaviour of an electrical circuit. These equations are then used for the systematic formulation of network equations on different sets of basis variables. Further, network transformations and theorems useful in circuit analysis are elaborated. The physical principles and mathematical analysis involved in understanding the transient phenomena in networks are discussed in detail. Sinusoidal steady state analysis of networks, including three-phase systems form another important part of the book.

Professor K.V.V. Murthy has been with the Department of Electrical Engineering IIT Bombay since 1963. He obtained B.Sc., from Mysore University, B.E., from IISc Bangalore and M.Tech., & Ph.D., degrees from IIT Bombay. He was also on teaching and research assignments at Concordia University Montreal, Canada and at Iowa State University Ames, USA. His teaching and research interests include Circuits & Systems, Signal Processing, Neural Networks and CAD for VLSI Design. He has published extensively in these areas.

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KEY FEATURES

- The book includes numerous solved problems, illustrating the concepts and techniques discussed
- Additional problems at the end of each chapter make it an ideal self-contained text for undergraduate students
- The subject has been viewed in the framework of 'systems approach' throughout the book, encompassing many other disciplines

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