1. Record Nr. UNINA9910366583803321

Autore	Sundararajan D
Titolo	Introductory Circuit Theory / / by D. Sundararajan
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-31985-7
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (300 pages) : illustrations
Disciplina	621.3815
Soggetti	Electronic circuits Computer engineering Internet of things Embedded computer systems Logic design Circuits and Systems Cyber-physical systems, IoT Logic Design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Basic Concepts -- DC Circuits -- AC Circuits -- Steady State Power -- Magnetically Coupled Circuits -- Three-phase Circuits -- Two-port Networks -- Transform Analysis and Transient Response -- Appendices -- Bibliography -- Answers to Selected Exercises -- Index.
Sommario/riassunto	This textbook for a one-semester course in Electrical Circuit Theory is written to be concise, understandable, and applicable. Matlab is used throughout, for coding the programs and simulation of the circuits. Every new concept is illustrated with numerous examples and figures, in order to facilitate learning. The simple and clear style of presentation, along with comprehensive coverage, enables students to gain a solid foundation in the subject, along with the ability to apply techniques to real circuit analysis. · Written to be accessible to students of varying backgrounds, this textbook presents the analysis of realistic, working circuits; · Presents concepts in a clear, concise and comprehensive manner, such as the difficult problem of setting up the equilibrium equations of circuits using a systematic approach in a few

distinct steps; · Includes worked examples of functioning circuits, throughout every chapter, with an emphasis on real applications; · Includes numerous exercises at the end of each chapter; · Provides program scripts and circuit simulations, using the popular and widely used Matlab software, as supplementary material online.