

1. Record Nr.	UNINA9910962066803321
Autore	Al-Naima Fawzi M
Titolo	Element stamp algorithm for matrix formulation of symbolic circuits // Fawzi M. Al-Naima and Bessam Z. Al-Jewad
Pubbl/distr/stampa	Hauppauge, NY, : Nova Science Publishers, c2010
ISBN	1-61761-243-X
Edizione	[1st ed.]
Descrizione fisica	1 online resource (75 p.)
Collana	Computer networks
Altri autori (Persone)	Al-JewadBessam Z
Disciplina	621.3815
Soggetti	Symbolic circuit analysis Electric networks - Mathematical models Matrices
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- ELEMENT STAMP ALGORITHM FOR MATRIX FORMULATION OF SYMBOLIC CIRCUITS -- ELEMENT STAMP ALGORITHM FOR MATRIX FORMULATION OF SYMBOLIC CIRCUITS -- CONTENTS -- PREFACE -- Chapter 1 COMPUTER REPRESENTATION OF SYMBOLIC MATRICES -- Chapter 2 TOPOLOGICAL (GRAPHICAL) REPRESENTATION OF MATRICES -- Chapter 3 BASIC NETWORK ELEMENTS AND EQUATIONS (DISTRIBUTED VS. LUMPED) -- Chapter 4 NODAL ANALYSIS TECHNIQUES -- 4.1. FORMULATION OF THE NODAL ADMITTANCE MATRIX -- 4.2. TABLEAU AND COMPACTED MODIFIED NODAL ANALYSIS (CMNA) METHODS -- 4.3. PRACTICAL APPLICATION OF THE CMNA METHOD -- 4.4. IMPLEMENTATION CONSIDERATIONS -- Chapter 5 CONCLUSION -- REFERENCES -- INDEX.
Sommario/riassunto	The need to analyse a linear network is a recurring requirement in computer-aided network analysis. Not only are the majority of the network problems to be solved linear problems, but non-linear resistive and dynamic networks are usually solved by the analysis of a sequence of "linearised" networks. The analysis of such networks can commonly be viewed as a two-stage process: equation formulation and linear solution. This book discusses an attractive formulation procedure that will not only change the solution strategy, but also the view of matrix reduction techniques.

