# <<网络理论及其应用>>

### 图书基本信息

书名:<<网络理论及其应用>>

13位ISBN编号: 9781860942266

10位ISBN编号: 1860942261

出版时间:2003-12

出版时间:Imperial College Press

作者: Chen, Wai-Kai

页数:660

版权说明:本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com

# <<网络理论及其应用>>

### 内容概要

Electrical, communication, transportation, computer, and neural networks are special kinds of nets. Designing these networks demands sophisticated mathematical models for their analysis. This book is the first to present a unified, comprehensive, and up-to-date treatment of net theory. It brings together elements of abstract graph theory and circuit analysis to network problems.

# <<网络理论及其应用>>

#### 书籍目录

Preface1 Graphs and Networks 1.1 Basic Definitions of Abstract Graphs 1.2 Operations on Graphs 1.3 Nonseparable Graphs and Bipartite Graphs 1.4 Planar Graphs 1.5 Dual Graphs 1.6 2-Isomorphism 1.7 Matrices Associated with a Graph 1.7.2 Circuit Matrix 1.7.1 Incidence Matrix 1.7.3 Cut Matrix 1.7.4 Interrelationships Among the Matrices A Bf and Qf 1.7.5 Node-to-Datum Path Matrix 1.8 Directed 1.8.1 Matrices Associated with a Directed Graph 1.8.2 Interrelationships Among the Matrices 1.8.3 Some Important Classes of Directed Graphs 1.9 The Circuit Matrix Associated with a Planar Graph or Directed Graph 1.10 Summary and Suggested Reading References 2The Shortest Directed Path Problem 2.1 Shortest Directed Paths 2.2 Shortest Directed Path Algorithms 2.2.1 Dijkstra Algorithm Ford-Moore-Bellman Algorithm 2.2.3 Yen Algorithm 2.2.4 Ford-Fulkerson Algorithm 2.3 Multiterminal Shortest Directed Paths 2.3.1 Matrix Algorithm 2.3.2 Floyd-Warshall Algorithm 2.4 Enumeration of the Shortest Directed Paths by Decomposition 2.5 Summary and Suggested Reading References3 Maximum Flows in Networks 3.1 Flows 3.2 s-t Cuts 3.3 Maximum Flow 3.4 Ford-Fulkerson 3.4.1 Integrity Theorem 3.4.2 Irrational Arc Capacities 3.5 Layered Nets 3.6 A Blocking Flow Algorithm Algorithm 3.7 Variants of the Ford-Fulkerson Algorithm 3.7.1 Edmonds-Karp Algorithm 3.7.2 Dinic 3.7.3 Other Variations 3.8 Karzanov Algorithm 3.9 Flows in Undirected and Mixed Nets 3.10 Algorithm Flows in Node-and-Arc Capacitated Nets 3.11 Summary and Suggested Reading References4 Minimum Trees and Communication Nets 4.1 Forests Subtrees and Trees 4.2 Minimum and Maximum Trees 4.3 Minimum and Maximum Tree Algorithms 4.3.1 Borfivka Algorithm 4.3.2 Kruskal Algorithm 4.3.3 Prim 4.3.4 General Remarks 4.4 Terminal Capacity Matrix ...... 5 Feasibility Theorems and Their Applications 6 Applecations of Flow Theorems to Subgraph Problems7 Signal-Flow Graphs8 Other Net **ApplicationsIndex** 

# <<网络理论及其应用>>

## 版权说明

本站所提供下载的PDF图书仅提供预览和简介,请支持正版图书。

更多资源请访问:http://www.tushu007.com