



Highlights the most recent developments in the field

The availability of cheaper, faster, and more reliable electronic components has stimulated important advances in computing and communication technologies. Theoretical and algorithmic approaches that address key issues in sensor networks, ad hoc wireless networks, and peer-to-peer networks – simply called SAP networks – play a central role in the development of emerging network paradigms. Filling the need for a comprehensive reference on recent developments, Handbook on Theoretical and Algorithmic Aspects of Sensor, Ad Hoc Wireless, and Peer-to-Peer Networks explores two questions: What are the central technical issues in these SAP networks? What are the possible solutions/tools available to address these issues?

The editor brings together information from different research disciplines to initiate a comprehensive technical discussion on theoretical and algorithmic approaches to three related fields: sensor networks, ad hoc wireless networks, and peer-to-peer networks. With chapters written by authorities from Motorola, Bell Lab, Honeywell, and academic institutions, the book examines theoretical and algorithmic aspects, and highlights future research challenges. The book's coverage includes theoretical and algorithmic methods and tools such as optimization, computational geometry, graph theory, and combinatorics. Although many books have emerged recently in this area, none of them address all three fields in terms of common issues.

FEATURES

- Coverage of ad hoc wireless, sensor, and peer-to-peer networks allows you to easily cross-reference similar results in three fields
- An international group of authors presents balanced coverage of research results
- Systematic treatment of theoretical and algorithmic aspects gives you easy access to important results
- Discussions of applications of networks offer good motivation for research in these fields
- Authoritative materials on a broad range of topics provide a comprehensive treatment of important issues by leading researchers
- Identification of common theoretical and algorithmic approaches that can address concepts related to SAP networks

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