Power Generation, Operation, And Control
A thoroughly revised new edition of the definitive work on power systems best practices. In this eagerly awaited new edition, Power Generation, Operation, and Control continues to provide engineers and academics with a complete picture of the techniques used in modern power system operation. Long recognized as the standard reference in the field, the book has been thoroughly updated to reflect the enormous changes that have taken place in the electric power industry since the Second Edition was published seventeen years ago. With an emphasis on both the engineering and economic aspects of energy management, the Third Edition introduces central “terminal” characteristics for thermal and hydroelectric power generation systems, along with new optimization techniques for tackling real-world operating problems. Readers will find a range of algorithms and methods for performing integrated economic, network, and generating system analysis, as well as modern methods for power system analysis, operation, and control. Special features include:

State-of-the-art topics such as market simulation, multiple market analysis, contract and market bidding, and other business topics

Chapters on generation with limited energy supply, power flow control, power system security, and more

An introduction to regulatory issues, renewable energy, and other evolving topics

New worked examples and end-of-chapter problems

A companion website with additional materials, including MATLAB programs and power system sample data sets

**Book Information**

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**Customer Reviews**

Without a doubt, this book makes admirable progress in integrating the traditional with the
new, and, as such, it is a worthy addition to professional libraries. It is a valuable text for a one- or two-course sequence in a graduate curriculum in power systems. Reasonable resource support for both student and instructor is available through the publisher. (IEEE, 1 July 2014)

A comprehensive text on the operation and control of power generation and transmission systems In the ten years since Allen J. Wood and Bruce F. Wollenberg presented their comprehensive introduction to the engineering and economic factors involved in operating and controlling power generation systems in electric utilities, the electric power industry has undergone unprecedented change. Deregulation, open access to transmission systems, and the birth of independent power producers have altered the structure of the industry, while technological advances have created a host of new opportunities and challenges. In Power Generation, Operation, and Control, Second Edition, Wood and Wollenberg bring professionals and students alike up to date on the nuts and bolts of the field. Continuing in the tradition of the first edition, they offer a practical, hands-on guide to theoretical developments and to the application of advanced operations research methods to realistic electric power engineering problems. This one-of-a-kind text also addresses the interaction between human and economic factors to prepare readers to make real-world decisions that go beyond the limits of mere technical calculations. The Second Edition features vital new material, including: A computer disk developed by the authors to help readers solve complicated problems Examination of Optimal Power Flow (OPF) Treatment of unit commitment expanded to incorporate the Lagrange relaxation technique Introduction to the use of bounding techniques and other contingency selection methods Applications suited to the new, deregulated systems as well as to the traditional, vertically organized utilities company Wood and Wollenberg draw upon nearly 30 years of classroom testing to provide valuable data on operations research, state estimation methods, fuel scheduling techniques, and more. Designed for clarity and ease of use, this invaluable reference prepares industry professionals and students to meet the future challenges of power generation, operation, and control. --This text refers to an out of print or unavailable edition of this title.

I found this book to be even better than the excellent first edition. While it requires undergraduate electrical engineering education and an understanding of steady state power analysis, it provides exceptional coverage of to various aspects of power generation, operation and control. I have recommended this book and the first edition to my colleagues in the past, after insuring that they had the background to understand the material presented.
Book arrived on time and was as described

It is what I expected

Updated and very useful to link traditional modeling and studies into the competitive environment that electrical power systems now face!

This book is wonderful! I think we cannot find a book better than this.

It wonderful to see the book on my table because it is the main textbook for me to teach a group of master students soon.

good

Book condition is as good as new. Liked it.

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