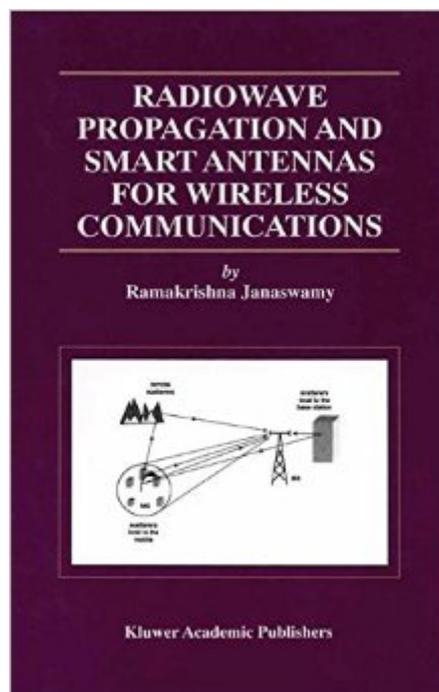# Radiowave Propagation And Smart Antennas For Wireless Communications (The Springer International Series In Engineering And Computer Science)

Synopsis

This book emerged from teaching a graduate level course in propagation and smart antennas at the Naval Postgraduate School. In its present form, it is suitable not only as a graduate level text, but also as a reference book for industry and research use. The area of radiowave propagation and smart antennas is highly interdisciplinary, extracting material from electromagn- ics, communications, and signal processing. This book is useful to workers in electromagnetics who would like to supplement their background with relevant communicational aspects and to workers in communications who would like to supplement their background with relevant electromagnetic aspects. Anyone with a basic understanding of probability, wave propagation, digital com- nications, and elementary signal processing should be able to appreciate the contents of the book. The book consists of nine chapters with several worked out examples d- persed throughout. Chapter 1 covers the basics of cellular communications. Chapter 2 covers the basic principles of electromagnetic wave propagation relevant to path loss predictions in wireless communications. Students with little prior background in electromagnetics should find the first few sections of Chapter 2 self-sufficient. Empirical path loss models that are used in system design are treated in Chapter 3. The chapter includes the traditional models as well as some of the newer models. Chapter 4 has a thorough discussion on the causes and characterization of small scale fading. The topic of spatial c- relation that is very important for antenna arrays is discussed there in detail.

Book Information

Series: The Springer International Series in Engineering and Computer Science (Book 599)

Hardcover: 312 pages

Publisher: Springer; 2001 edition (November 30, 2000)

Language: English

ISBN-10: 0792372417

ISBN-13: 978-0792372417

Product Dimensions: 6.1 x 0.8 x 9.2 inches

Shipping Weight: 1.6 pounds (View shipping rates and policies)

Average Customer Review: 4.0 out of 5 stars Â Â See all reviewsÂ (1 customer review)

Best Sellers Rank: #3,300,594 in Books (See Top 100 in Books)   #144 inÂ Books > Engineering & Transportation > Engineering > Telecommunications & Sensors > Antennas   #1130 inÂ Books > Crafts, Hobbies & Home > Crafts & Hobbies > Radio Operation   #1231 inÂ Books > Engineering & Transportation > Engineering > Telecommunications & Sensors > Radio

Customer Reviews

This is a self-contained reference book for smart antennas. This can also be used as a textbook for senior university students who are studying mobile channels, diversity and antenna array.Pratical issues such as branch correlation and mutual coupling among antenna elements are presented. It also presents a semi-analytical approach to analyze optimum array in the presence of branch correlation and multiple cochannel interference.

Radiowave Propagation and Smart Antennas for Wireless Communications (The Springer International Series in Engineering and Computer Science) RF Engineering for Wireless Networks: Hardware, Antennas, and Propagation (Communications Engineering (Paperback)) Face Image Analysis by Unsupervised Learning (The Kluwer International Series in Engineering and Computer Science, Volume 612) (The Springer International Series in Engineering and Computer Science) Smart Antennas for Wireless Communications: With MATLAB (Professional Engineering) Hacking: Wireless Hacking, How to Hack Wireless Networks, A Step-by-Step Guide for Beginners (How to Hack, Wireless Hacking, Penetration Testing, Social ... Security, Computer Hacking, Kali Linux) Wireless Hacking: How To Hack Wireless Network (How to Hack, Wireless Hacking, Penetration Testing, Social ... Security, Computer Hacking, Kali Linux) Antennas and Propagation for Wireless Communication Systems: 2nd Edition Millimeter Wave Wireless Communications (Prentice Hall Communications Engineering and Emerging Technologies Series from Ted Rappaport) Third-Generation Systems and Intelligent Wireless Networking: Smart Antennas and Adaptive Modulation Data and Computer Communications (10th Edition) (William Stallings Books on Computer and Data Communications) Data and Computer Communications (William Stallings Books on Computer and Data Communications) Web Caching and Its Applications (The Springer International Series in Engineering and Computer Science) Applications of Digital Signal Processing to Audio and Acoustics (The Springer International Series in Engineering and Computer Science) Face Image Analysis by Unsupervised Learning (The Springer International Series in Engineering and Computer Science) Optical Character Recognition: An Illustrated Guide to the Frontier (The Springer International Series in Engineering and Computer Science) Analog Design Essentials (The Springer International Series in Engineering and Computer Science) Low Power Design Methodologies (The Springer International Series in Engineering and Computer Science) Analog Design for CMOS VLSI Systems (The Springer International Series in Engineering and Computer Science) HACKING: Beginner's Crash Course - Essential Guide to Practical: Computer Hacking,

Hacking for Beginners, & Penetration Testing (Computer Systems, Computer Programming, Computer Science Book 1) RF Design Guide Systems, Circuits and Equations (Artech House Antennas and Propagation Library)