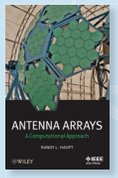
Discover these Titles in Antennas and Propagation from Wiley!

Antenna Arrays: A Computational Approach

Randy L. Haupt

9780470407752 | Wiley-IEEE Press
2010 | Cloth | 534 pages | USD $145.00

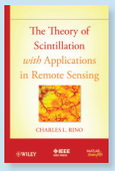


This book covers a wide range of antenna array topics that are becoming increasingly important in wireless applications, particularly in design and computer modeling. Signal processing and numerical modeling algorithms are explored, and MATLAB computer codes are provided for many of the design examples. Pictures of antenna arrays and components provided by industry and government sources are presented with explanations of how they work. Antenna Arrays is a valuable reference for practicing engineers and scientists in wireless communications, radar, and remote sensing, and an excellent textbook for advanced antenna courses.

The Theory of Scintillation with Applications in Remote Sensing

Charles Rino

9780470644775 | Wiley-IEEE Press
2011 | Cloth | 230 pages | USD $110.00



In order to truly understand data signals transmitted by satellite, one must understand scintillation theory in addition to well-established theories of EM wave propagation and scattering. This book not only presents a thorough theoretical explanation of scintillation, but also offers ample application-specific simulation tools utilizing MATLAB codes. In addition, downloadable software libraries and supporting programs are also available to readers, allowing electromagnetic wave researchers and practitioners to engage in pragmatic exercise.

Small Antenna Handbook, 1st Edition

Robert C. Hansen, Robert E. Collin

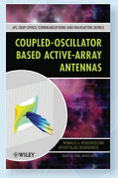
9780470890837 | Wiley
2011 | Cloth | 360 pages | USD $131.00

Now in an completely revised, updated, and enlarged Second Edition, Small Antennas in Portable Devices reviews recent significant theoretical and practical developments in the electrically small antenna area. Examining antenna designs that work as well as those that have limitations, this new edition provides practicing engineers and upper level and graduate students with new information on: work on improving bandwidth using spherical helix dipoles; work on electromagnetically coupled structures; exact derivation of the Q for electrically small antennas for both the TE and TM modes; and a new simplified Q formula.

Coupled-Oscillator Based Active-Array Antennas

Ronald J. Pogorzelski, Apostolos Georgiadis

9781118235294 | Wiley
2012 | Cloth | 380 pages | USD $140.00

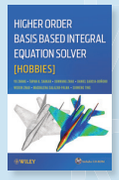


This book provides a highly useful tutorial for antenna designers and a valuable reference for researchers and engineers wishing to learn about coupled-oscillator systems. Complete with 150 diagrams and photographs, this book explores in detail phased-array antennas that use coupled-oscillator arrays, an arrangement featuring a remarkably simple beam steering control system and a major reduction in complexity compared with traditional methods of phased-array control. The authors examine the underlying theoretical framework of coupled-oscillator systems, clearly explaining the linear and nonlinear formalisms used in the development of coupled-oscillator arrays.

Higher Order Basis Based Integral Equation Solver (HOBBIES)

T. K. Sarkar

9781118140659 | Wiley
2012 | Cloth | 568 pages | USD $210.00

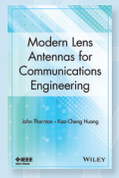


This book offers the latest in the parallel solution of integral equations for both in-core and out-of-core modes. User-friendly computer code is provided, with a strong and unique capability for solving challenging electromagnetic field problems consisting of complex material structures. The content also provides parallel programming techniques that make MoM (Method of Moments) a useful software and more accessible to antenna and microwave designers who need a fast simulation tool. This code both supports classroom education and helps practicing engineers develop new versatile products.

Modern Lens Antennas for Communications Engineering

John Thornton, Kao-Cheng Huang

9781118010655 | Wiley-IEEE Press
2013 | Cloth | 284 pages | USD $125.00



The aim of this book is to present the modern design principles and analysis of lens antennas. It gives graduates and RF/Microwave professionals the design insights needed to make full use of lens antennas. Because this topic has not been thoroughly publicized, its importance is underestimated. As antennas play a key role in communication systems, recent development in wireless communications would indeed benefit from the characteristics of lens antennas, namely their low profile and low cost.

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