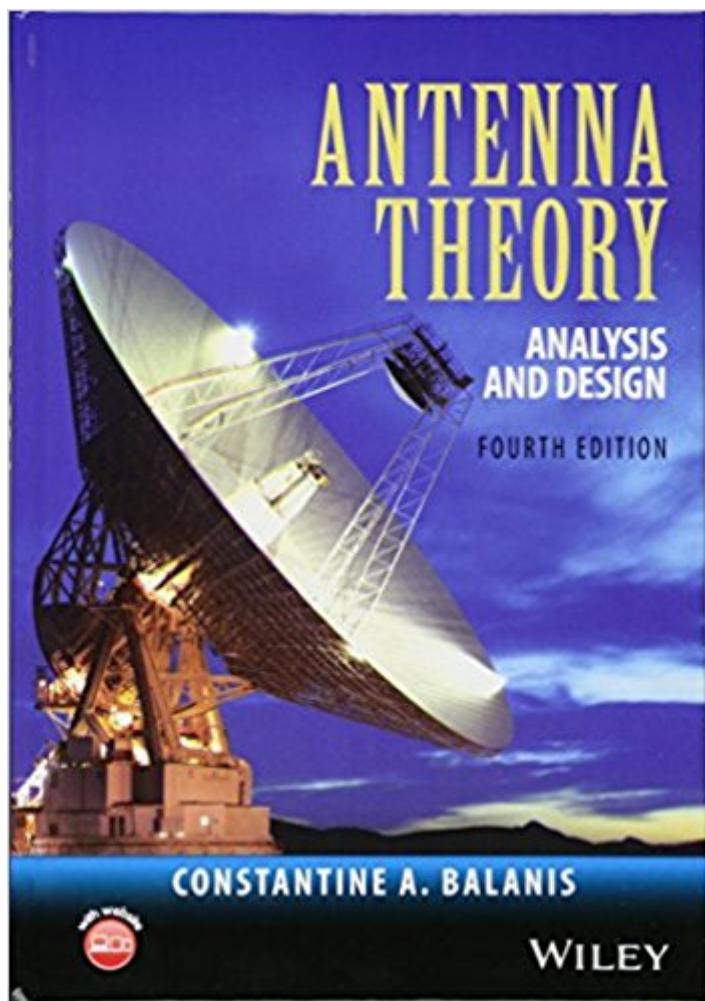The book was found

Antenna Theory: Analysis And Design

Synopsis

Updated with color and gray scale illustrations, a companion website housing supplementary material, and new sections covering recent developments in antenna analysis and designThis book introduces the fundamental principles of antenna theory and explains how to apply them to the analysis, design, and measurements of antennas. Due to the variety of methods of analysis and design, and the different antenna structures available, the applications covered in this book are made to some of the most basic and practical antenna configurations. Among these antenna configurations are linear dipoles; loops; arrays; broadband antennas; aperture antennas; horns; microstrip antennas; and reflector antennas. The text contains sufficient mathematical detail to enable undergraduate and beginning graduate students in electrical engineering and physics to follow the flow of analysis and design. Readers should have a basic knowledge of undergraduate electromagnetic theory, including Maxwellâ ™s equations and the wave equation, introductory physics, and differential and integral calculus. Presents new sections on flexible and conformal bowtie, Vivaldi antenna, antenna miniaturization, antennas for mobile communications, dielectric resonator antennas, and scale modeling Provides color and gray scale figures and illustrations to better depict antenna radiation characteristics Includes access to a companion website housing MATLAB programs, Java-based applets and animations, Power Point notes, Java-based interactive questionnaires and a solutions manual for instructors Introduces over 100 additional end-of-chapter problems Antenna Theory: Analysis and Design, Fourth Edition is designed to meet the needs of senior undergraduate and beginning graduate level students in electrical engineering and physics, as well as practicing engineers and antenna designers.Constantine A. Balanis received his BSEE degree from the Virginia Tech in 1964, his MEE degree from the University of Virginia in 1966, his PhD in Electrical Engineering from The Ohio State University in 1969, and an Honorary Doctorate from the Aristotle University of Thessaloniki in 2004.Â From 1964 to 1970, he was with the NASA Langley Research Center in Hampton, VA, and from 1970 to 1983, he was with the Department of Electrical Engineering of West Virginia University. In 1983 he joined Arizona State University and is now Regents' Professor of Electrical Engineering. Dr. Balanis is also a life fellow of the IEEE.

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Customer Reviews

This book introduces the fundamental principles of antenna theory and explains how to apply them to the analysis, design, and measurements of antennas. Due to the variety of methods of analysis and design, and the different antenna structures available, the applications covered in this book are made to some of the most basic and practical antenna configurations. Among these antenna configurations are linear dipoles; loops; arrays; broadband antennas; aperture antennas; horns; microstrip antennas; and reflector antennas. The text contains sufficient mathematical detail to enable undergraduate and beginning graduate students in electrical engineering and physics to follow the flow of analysis and design. Readers should have a basic knowledge of undergraduate electromagnetic theory, including Maxwellâ ™s equations and the wave equation, introductory physics, and differential and integral calculus.

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One Of the best books I came across, I studied in my Master Program how to design an antenna and this book specifically help you understand how to calculate and measure your wavelength, radiation pattern and more.

Wow, I wanted a book that started at the beginning on design of antennas. That is what I got and

then some. If you have the time and patience this textbook has the information and reference for you. I will get my moneys worth and much more. There are several topics covered, and several designs as well. There are some I had no Idea about and can't wait to build on my own.I am a Licensed Amateur Radio Operator KD9DYN, and I want to design and build my own antennas. So keep this in mind when deciding on your purchase. I waited 3-4 months before I decided on this book. I am very happy that I waited and did my research.

I am about a month into this course and the third chapter which derives the electromagnetic wave equation is drasticly lacking a lot of steps. They completely skip over the greens function PDE derivation so I was compelled to order a separate PDE book recommended on MIT open course ware.

I have two standard textbooks on antennas, namely, Antenna Theory by Balanis and Antennas by Kraus (both third edition). Both are good books. But if I could keep only one book, I would definitely choose Balanis because, in my non-expert opinion, it is more coherent, more systematic, and has a stronger emphasis on principles. Balanis also comes with a helpful CD containing Powerpoint slides (tons of them), Matlab files, and a few other items. The paper quality is superb but the paper thickness makes for a tome that feels like a heavy college dictionary. The mathematics is not as scary as I originally thought, and should be okay for final year EE undergraduates. I recommend this book highly and unreservedly.

Anyone who is interested in pursuing a career in this area of electrical engineering should be aware that this book is one of the most widely used college textbooks on antennas, as well as one of the most often cited reference books on antennas: It has been translated into five foreign languages and according to Google Scholar, as of February 2017 it has been cited as a reference by researchers nearly 21,000 times, with more than 2,000 citations occurring in 2016 alone. If you can master most of the material in this book, you will then have the fundamental knowledge of antenna theory that is required for most entry-level positions as a researcher or engineer.In my opinion, there are several reasons for this book's immense popularity: 1. Professor Balanis' writing style is simple, direct and to the point. This makes learning an inherently difficult and mathematically intensive subject as easy as is reasonably possible. 2. Over the years, Balanis has developed a reputation for producing very high quality college textbooks; you may also be interested in his other popular college textbook "Advanced Engineering Electromagnetics." 3. While other textbooks sometimes

dedicate too much space and even entire chapters to the author's (sometimes esoteric) special area of expertise, this book avoids that pitfall and instead dedicates more space to antenna basics that should be universally important to all antenna researchers and practicing engineers.This book (the second edition) is a great bargain at just $38. Although this book contains all the fundamentals you will need (nearly 1000 pages) to work at most jobs in this industry, you may also want to consider the third edition, which contains everything in the second edition along with an additional chapter on smart antennas, and includes fractal antennas and antennas for wireless and cellular applications.

Crystal clear and remarkably comprehensive, I taught myself antenna theory and simulation from this text with tremendous learning - and a lot of fun. I don't know of a better introduction.

Good! Color printing and nice paper quality!

There are so many books on this topic and so few of them can convey the true art form. For me, this is the best book available on the subject!!

Antenna Theory: Analysis and Design Making Design Theory (Design Thinking, Design Theory) Design, When Everybody Designs: An Introduction to Design for Social Innovation (Design Thinking, Design Theory) Narrowband Direction of Arrival Estimation for Antenna Arrays (Synthesis Lectures on Antennas) The Poynting Vector Antenna Practical Antenna Handbook 5/e ARRL's Wire Antenna Classics Fiber to the Antenna Fiber to the Antenna: Fiber Optics Workshop Antenna Physics: An Introduction Graphic Design Success: Over 100 Tips for Beginners in Graphic Design: Graphic Design Basics for Beginners, Save Time and Jump Start Your Success (graphic ... graphic design beginner, design skills) Analytics: Business Intelligence, Algorithms and Statistical Analysis (Predictive Analytics, Data Visualization, Data Analytics, Business Analytics, Decision Analysis, Big Data, Statistical Analysis) Analytics: Data Science, Data Analysis and Predictive Analytics for Business (Algorithms, Business Intelligence, Statistical Analysis, Decision Analysis, Business Analytics, Data Mining, Big Data) Real Analysis: Measure Theory, Integration, and Hilbert Spaces (Princeton Lectures in Analysis) (Bk. 3) Problems and Theorems in Analysis II: Theory of Functions. Zeros. Polynomials. Determinants. Number Theory. Geometry (Classics in Mathematics) Sailing Theory and Practice. A Scientific Analysis, with 335 Drawings and Photographs of the Aerodynamic, Hydrodynamic and Other Design Factors which Define a Yacht's Behaviour. Music Theory: From Beginner to Expert - The Ultimate Step-By-Step Guide to Understanding and Learning Music Theory

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