Fundamentals Of Electromagnetics With MATLAB
Synopsis

Virtually every four-year electrical and computer engineering program requires a course in electromagnetic fields and waves encompassing Maxwell’s equations. Understanding and appreciating the laws of Nature that govern the speed of even the smallest computer chip or largest power line is fundamental for every electrical and computer engineer. Fundamentals of Electromagnetics with MATLAB, 2nd Edition is much more than a mere textbook. The book itself offers a structural framework of principles, key equations, and problems. With that crucial supporting structure, each instructor, student or reader can turn to the supplemental files provided with this book or available online to customize and decorate each topic room. This second edition is the result of extensive user feedback and includes a 100% standalone Transmission Line chapter for flexible course placement; expanded problem sets matched to text sections and checked for clarity; and separate chapters for Electrostatics and Magnetostatics. STUDENT & INSTRUCTOR RESOURCES are available here.

Book Information

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Customer Reviews

I seriously cannot understand why so many bad reviews of this book, I believe it is a great introductory book, with a very fresh and different perspective compared to the more traditional books out there, it encourages the student from the start to approach electromagnetism via computational methods, using matlab and a hands on approach. There are several examples both with and without Matlab, and plenty of Matlab scripts are provided on the CD, the book teaches the
student analytical methods but also powerful tools like numerical methods for EM problems, it even features introductory sections on the Finite element method, Finite Difference Method and the Method of Moments with easy-to-follow examples and added Matlab codes on the CD, I have yet to see any of the traditional undergraduate EM books feature coverage of this topics which are really important and used extensively in the world of applied electromagnetism. The problems are much more practical and real, Im amazed by the fact that students always complain that EM is a very abstract subject, yet they still seem to be able to complain when they are presented with applied problems for not being as common or straightforward. This is clearly a book made for engineering students, for instance many problems are clearly oriented towards communication applications, illustrations provide circuit elements to help the student visualize how the charge, or magnetic field, or what ever, actually got there instead of just assuming that somehow it appeared from thin air, etc...

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