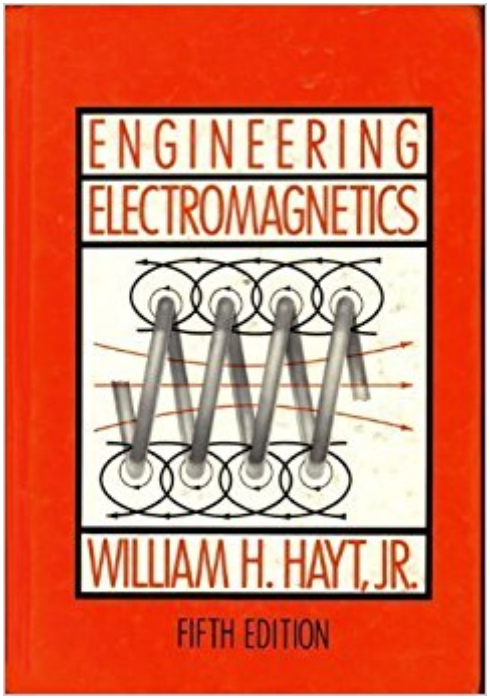
Engineering Electromagnetics (Mcgraw-Hill Series In Electrical Engineering. Electromagnetics)



Synopsis

Designed for introductory courses in electromagnetics or electromagnetic field theory at the junior level and offered in departments of electrical engineering, the text is a widely respected, updated version that stresses fundamentals and problem-solving and discusses the material in an understandable, readable way. This edition retains the scope and emphasis that have made the book very successful while adding over twenty new numerical examples and over 550 new end-of-chapter problems.

Book Information

Series: Mcgraw-Hill Series in Electrical Engineering. Electromagnetics
Hardcover: 496 pages
Publisher: Mcgraw-Hill College; 5th edition (December 1, 1988)
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Customer Reviews

Good college level book, I learned in school from an earlier version.

I was looking for this book to satisfy a personal need. It is just perfect. Price was awesome. Unbeatable. Came right on time. I am pleased.

Good product great price

I had to use this for an EM theory class a long time ago. The derivations in the book skip around a lot, referring back to previous examples, and drawing upon concepts not introduced until later chapters. This style makes understanding the material on the first pass nearly impossible. You must reread the text to truly understand where some of the "given" formulas in the examples come from.

This kind of organization makes a difficult subject (EM theory) that much harder to learn.

I used the book for a junior level course in Engineering Electromagnetics at UCLA in early 1971. The course was taught very well in terms of concepts by a Plasma Physicist who held a professorship in the School of Engineering and Applied Science, UCLA.It is my belief this is an excellent book for teaching motivated students and for learning the subject in depth at the outset. Though it is not in my view a good reference book as a few others at roughly the same level or higher for the purpose of browsing to pick up key ideas and concepts with engineering applications (e.g., Krause's excellent book on Electromagnetics), yet it is very well organized in that all concepts presented are built up one upon another in a closely connected, coherent and systematic fashion analytically with vector methods, and difficult physical ideas are often pictorially illustrated with diagrams in color. This is true in both the older edition and the 5th edition (1989), being that there are not really a lot of significant differences between the editions.The book starts with vector calculus and basic underlying ideas in electrostatics (Coulomb's Law), and goes onto Gauss's Law, energy and potential, electric currents and conduction, electric fields, capacitance, dielectric materials and other related topics (e.g., refraction). It then progresses into steady magnetic field, inductance and eventually toward Maxwell's equations and engineering applications. There is no lack of mathematical methods which are treated as needed and sufficient in depth all throughout the book, e.g., divergence theorem, Laplace's and Poisson's equations and related boundary value problems. The book ends with uniform plane waves (as an approximate model of the propagating EM wave), and discusses transmission line models which then lead to applications. The only regrettable aspect is the brief treatment of antennas as the subject is barely touched upon as part of EM radiation, and the only tangible real-world example I could recall was a dipole antenna.As a summary, this is a well written book, albeit a somewhat introductory text designed for Electrical Engineering juniors and seniors by a seasoned Purdue professor. It will help tremendously if the instructor is good at explaining concepts and illustrating them (as was mine in 1971). I must say I love the subject because I had such good instruction and learning experiences based on this book which I had to refer to many times over the years.

Read this book from cover-to-cover a few years ago to brush up on E&M theory.I have always been partial to Hayt as an author of classic EE titles and this book did not disappoint. The prose was clean, the development logical and the treatment adequately thorough for an undergrad text.For those who find their first class in E&M a little daunting, I would strongly recommend the little book:

"Div, Grad, Curl and All That" by H.M. Shey. This informal text covers all of the vector calculus essential to basic E&M theory with lots of worked examples and problems with solutions. My advice is to bone up on vector calculus first -- it makes E&M theory much more accessible.

This is one of my favorite Electromagnetics books and I don't understand why somebody has not reviewed this book yet for . It is a well written informative book on one of the more difficult subjects in Electrical Engineering. Excellent book Professor Hayt!

Aimed at Engineering students from beginning to intermediate i.e years 1 to 2 and perhaps 3. The style is detailed, unpretentious and original, with relevant problems and answers provided. Would have preferred the drawings to remain B&W though.

Score) McGraw-Hill Education 5 TEAS Practice Tests, Third Edition (Mcgraw Hill's 5 Teas Practice Tests) McGraw-Hill Education Strategies for the GED Test in Mathematical Reasoning with CD-ROM (Mcgraw Hill's Ged Mathematics) McGraw-Hill's Catholic High School Entrance Exams, 3rd Edition (McGraw-Hill's Catholic High School Entrance Examinations)