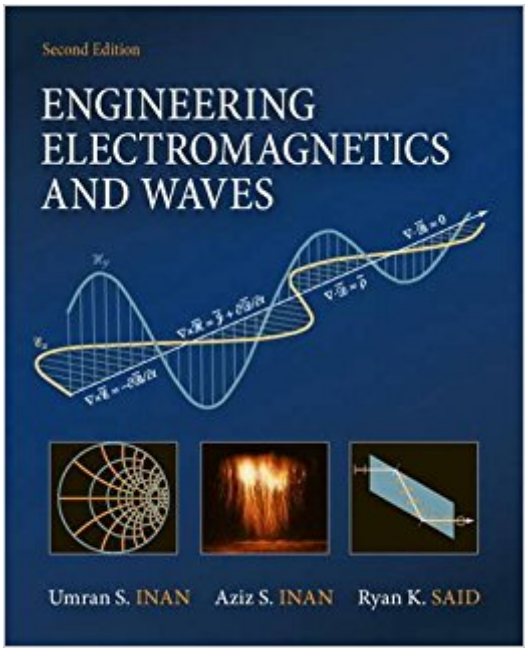
Engineering Electromagnetics And Waves (2nd Edition)



Synopsis

Engineering Electromagnetics and Waves is designed for upper-division college and university engineering students, for those who wish to learn the subject through self-study, and for practicing engineers who need an up-to-date reference text. The student using this text is assumed to have completed typical lower-division courses in physics and mathematics as well as a first course on electrical engineering circuits. Ã Â This book provides engineering students with a solid grasp of electromagnetic fundamentals and electromagnetic waves by emphasizing physical understanding and practical applications. The topical organization of the text starts with an initial exposure to transmission lines and transients on high-speed distributed circuits, naturally bridging electrical circuits and electromagnetics. Teaching and Learning Experience This program will provide a better teaching and learning experienceÃ¢â ¬â œfor you and your students. It provides: Modern Chapter Organization Emphasis on Physical Understanding Detailed Examples, Selected Application Examples, and Abundant Illustrations Numerous End-of-chapter Problems, Emphasizing Selected Practical Applications Historical Notes on the Great Scientific Pioneers Emphasis on Clarity without Sacrificing Rigor and Completeness Hundreds of Footnotes Providing Physical Insight, Leads for Further Reading, and Discussion of Subtle and Interesting Concepts and Applications

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Customer Reviews

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Director of the Space, Telecommunications, and Radioscience (STAR) Laboratory. He has received the 1998 Stanford University Tau Beta Pi Award for Excellence in Undergraduate Teaching, and actively conducts research in electromagnetic waves in plasmas, lightning discharges, ionospheric physics, and very low frequency remote sensing. Dr. Inan has served as the Ph.D. thesis advisor for 13 students and is a senior member of IEEE, a member of Tau Beta Pi, Sigma Xi, the American Geophysical Union, the Electromagnetics Academy, and serves as Secretary of U.S. National Committee of the International Union of Radio Science (URSI). AZIZ S. INAN is Associate Professor of Electrical Engineering at the University of Portland, where he has also served as Department Chairman. A winner of the University's faculty teaching award, he conducts research in electromagnetic wave propagation in conducting and inhomogeneous media. He is a member of Tau Beta Pi and IEEE.

Integration of authors earlier two books on Engineering Electromagnetics (which did not do transmission and reflections vs arbitrary incident angle) and Electromagnetic Waves (which had general transmission and reflection case, but not electro and magneto statics). If you have the earlier two books, you have just about everything and more that is included in this single volume with the exception of some newer examples. Very nice descriptions of distributed vs lumped components and time delay. Nice examples abound, for example, dielectric waveguides using InGaAs and InP semiconductors and use of forces on capacitor in MEMs, and an introduction to metamaterials. A bit wordy, but generally interesting reading. Gives nice phase plots in addition to magnitude when talking about reflection and transmission, which seems a rarity in most books. Antenna theory not covered at all, which is a bit of a disappointment if one is looking for a complete volume for the undergraduate EE. No numerical or variational methods and nothing on coplanar or microstrip lines. Wish some author somewhere would explain how size of hole in Faraday cage affects shielding effectiveness and include enough of a discussion of variational methods so undergrads would realize that the capacitance of a pair of conductors of an odd shape is always smaller than the capacitance of some known configuration that would enclose them, such as parallel wires enclosing rectangular wires (i.e. how to set useful upper and lower bounds for capacitance, resistance, inductance without detailed calculation) but you still need to find such usefuls facts in Jackson or Collin end of chapter problems.

needed it for a class so it’s okay i guess

Engineering Electromagnetics (Mcgraw-Hill Series in Electrical Engineering. Electromagnetics) Engineering Electromagnetics and Waves (2nd Edition) A Modern Short Course in Engineering Electromagnetics (Oxford Engineering Science Series) Engineering Electromagnetics with CD (McGraw-Hill Series in Electrical Engineering) Advanced Engineering Electromagnetics, 2nd Edition New Waves in Philosophical Logic (New Waves in Philosophy) New Waves in Epistemology (New Waves in Philosophy) Elements of Electromagnetics (The Oxford Series in Electrical and Computer Engineering) Electromagnetics for Engineers (The Oxford Series in Electrical and Computer Engineering) Field and Wave Electromagnetics (2nd Edition) Fundamentals of Electromagnetics with Engineering Applications Engineering Electromagnetics Engineering Electromagnetics (Irwin Electronics & Computer Enginering) Advanced Engineering Electromagnetics Schaum's Outline of Electromagnetics, 4th Edition (Schaum's Outlines) Fundamentals of Applied Electromagnetics (7th Edition) Fundamentals of Applied Electromagnetics (6th Edition) Schaum's Outline of Electromagnetics, Third Edition (Schaum's Outline Series) Fundamentals of Applied Electromagnetics 6th (sixth) edition Text Only Numerical Techniques in Electromagnetics, Second Edition