

1. Record Nr.	UNINA9910392746203321
Autore	Balaji S
Titolo	Electromagnetics made easy // by S. Balaji
Pubbl/distr/stampa	Singapore : , : Springer Singapore : , : Imprint : Springer, , 2020
ISBN	981-15-2658-3
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (664 pages)
Disciplina	537
Soggetti	Electrical engineering Optics Electrodynamics Electrical Engineering Classical Electrodynamics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Vector Analysis -- Electric Charges at Rest Part-I -- Electric Charges at Rest Part-II.-Magnetostatics -- Magnetic fields in materials -- Time varying fields and Maxwell's equations -- Plane electromagnetic waves -- Transmission lines -- Wave guides.-Antennas.
Sommario/riassunto	This book is intended to serve as an undergraduate textbook for a beginner's course in engineering electromagnetics. The present book provides an easy and simplified understanding of the basic principles of electromagnetics. Abstract theory has been explained using real life examples making it easier for the reader to grasp the complicated concepts. An introductory chapter on vector calculus and the different coordinate systems equips the readers with the prerequisite knowledge to learn electromagnetics. The subsequent chapters can be grouped into four broad sections – electrostatics, magnetostatics, time varying fields, and applications of electromagnetics. Written in lucid terms, the text follows a sequential presentation of the topics, and discusses the relative merits and demerits of each method. Each chapter includes a number of examples which are solved rigorously along with pictorial representations. The book also contains about 400 figures and illustrations which help students visualize the underlying physical concepts. Several end-of-chapter problems are provided to test the key

concepts and their applications. Thus the book offers a valuable resource for both students and instructors of electrical, electronics and communications engineering, and can also be useful as a supplementary text for undergraduate physics students. .
