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Nota di contenuto	Signals & systems -- Wired,wireless & optical systems -- Modulation & demodulation -- Internet protocols & packet delivery algorithms -- Quantization & coding -- Data transmission & integrity.
Sommario/riassunto	DISCOVER THE BASIC TELECOMMUNICATIONS SYSTEMS PRINCIPLES IN AN ACCESSIBLE LEARN-BY-DOING FORMAT Communication Systems Principles Using MATLAB; covers a variety of systems principles in telecommunications in an accessible format without the need to master a large body of theory. The text puts the focus on topics such as radio and wireless modulation, reception and transmission, wired networks and fiber optic communications. The book also explores packet networks and TCP/IP as well as digital source and channel coding, and the fundamentals of data encryption. Since MATLAB; is widely used by telecommunications engineers, it was chosen as the vehicle to demonstrate many of the basic ideas, with code examples presented in every chapter. The text addresses digital communications with coverage of packet-switched networks. Many fundamental concepts such as routing via shortest-path are introduced with simple and concrete examples. The treatment of advanced telecommunications topics extends to OFDM for wireless modulation, and public-key exchange algorithms for data encryption. Throughout

the book, the author puts the emphasis on understanding rather than memorization. The text also: . Includes many useful take-home skills that can be honed while studying each aspect of telecommunications. Offers a coding and experimentation approach with many real-world examples provided. Gives information on the underlying theory in order to better understand conceptual developments. Suggests a valuable learn-by-doing approach to the topic Written for students of telecommunications engineering, Communication Systems Principles Using MATLAB[®]; is the hands-on resource for mastering the basic concepts of telecommunications in a learn-by-doing format.
