

1. Record Nr.	UNISA996204787803316
Autore	Blaunstein Nathan
Titolo	Radio propagation and adaptive antennas for wireless communication networks : terrestrial, atmospheric, and ionospheric // Nathan Blaunstein, Christos G. Christodoulou
Pubbl/distr/stampa	Hoboken, New Jersey : , : John Wley & Sons Inc., , [2014] [Piscataqay, New Jersey] : , : IEEE Xplore, , [2014]
ISBN	1-118-81670-6 1-118-81672-2 1-118-81669-2
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (700 p.)
Collana	Wiley series in microwave and optical engineering
Altri autori (Persone)	ChristodoulouChristos G. <1955->
Disciplina	621.382 621.3824
Soggetti	Adaptive antennas Radio wave propagation Wireless communication systems - Equipment and supplies Cell phone systems - Equipment and supplies
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	-- PREFACE vii -- PART I FUNDAMENTALS OF WIRELESS LINKS AND NETWORKS -- 1 Wireless Communication Links with Fading 1 -- 2 Antenna Fundamentals 34 -- 3 Fundamentals of Wireless Networks 54 -- PART II FUNDAMENTALS OF RADIO PROPAGATION -- 4 Electromagnetic Aspects of Wave Propagation over Terrain 81 -- 5 Terrestrial Radio Communications 117 -- 6 Indoor Radio Propagation 179 -- PART III FUNDAMENTALS OF ADAPTIVE ANTENNAS -- 7 Adaptive Antennas for Wireless Networks 216 -- 8 Prediction of Signal Distribution in Space, Time, and Frequency Domains in Radio Channels for Adaptive Antenna Applications 280 -- 9 Prediction of Operational Characteristics of Adaptive Antennas 375 -- PART IV PRACTICAL ASPECTS OF TERRESTRIAL NETWORKS PERFORMANCE: CELLULAR AND NONCELLULAR -- 10 Multipath Fading Phenomena in Terrestrial Wireless Communication Links 413 -- 11 Cellular and Noncellular

Communication Networks Design Based on Radio Propagation Phenomena 494 -- PART V ATMOSPHERIC AND SATELLITE COMMUNICATION LINKS AND NETWORKS -- 12 Effects of the Troposphere on Radio Propagation 536 -- 13 Ionospheric Radio Propagation 591 -- 14 Land / Satellite Communication Links 639 -- INDEX 677

Sommario/riassunto

Radio Propagation and Adaptive Antennas for Wireless Communication Networks, 2nd Edition, presents a comprehensive overview of wireless communication system design, including the latest updates to considerations of over-the-terrain, atmospheric, and ionospheric communication channels. New features include the latest experimentally-verified stochastic approach, based on several multi-parametric models; all-new chapters on wireless network fundamentals, advanced technologies, and current and modern multiple access networks; and helpful problem sets at the conclusion of each chapter to enhance clarity. The volume's emphasis remains on a thorough examination of the role of obstructions on the corresponding propagation phenomena that influence the transmission of radio signals through line-of-sight (LOS) and non-line-of-sight (NLOS) propagation conditions along the radio path between the transmitter and the receiver antennas - and how adaptive antennas, used at the link terminals, can be used to minimize the deleterious effects of such obstructions. With its focus on 3G, 4G, MIMO, and the latest wireless technologies, Radio Propagation and Adaptive Antennas for Wireless Communication Networks represents an invaluable resource to topics critical to the design of contemporary wireless communication systems.
