1. Record Nr. UNINA9911019550403321 Autore Perez-Fontan F Titolo Modeling the wireless propagation channel: a simulation approach with Matlab / / F. Perez-Fontan and P. Marino-Espineira Chichester, West Sussex, England; Hoboken, NJ, USA, Wiley, 2008 Pubbl/distr/stampa **ISBN** 9786613203540 9781283203548 1283203545 9780470751749 0470751746 9780470751732 0470751738 Descrizione fisica 1 online resource (272 p.) Collana Wireless communications and mobile computing Altri autori (Persone) Marino EspineiraP Disciplina 621.384/11 Soggetti Mobile communication systems - Computer simulation Radio wave propagation - Computer simulation Radio wave propagation - Mathematical models Antennas (Electronics) - Computer simulation 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 and index. Nota di contenuto Contents About the Series Editors Preface Acknowledgments 1 Introduction to Wireless Propagation 1.1 Introduction 1.2 Wireless Propagation Basics 1.3 Link Budgets 1.4 Projects 1.5 Summary References Software Supplied 2 Shadowing Effects 2.1 Introduction 2.2 Projects 2.3 Summary References Software Supplied 3 Coverage and Interference 3.1 Introduction 3.2 Hata Model 3.3 Projects 3.4 Summary References Software Supplied 4 Introduction to Multipath 4.1 Introduction 4.2 Projects 4.3 Summary References Software Supplied 5 Multipath: Narrowband Channel 5.1 Introduction 5.2 Projects 5.3 Summary References Software Supplied 6 Shadowing and Multipath 6.1 Introduction 6.2 Projects 6.3 Summary References Software Supplied 7

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Sommario/riassunto

A practical tool for propagation channel modeling with MATLAB(R) simulations. Many books on wireless propagation channel provide a highly theoretical coverage, which for some interested readers, may be difficult to follow. This book takes a very practical approach by introducing the theory in each chapter first, and then carrying out simulations showing how exactly put the theory into practice. The resulting plots are analyzed and commented for clarity, and conclusions are drawn and explained from the obtained results. Key features include: . A unique approach to propagation channel modeling with accompanying MATLAB(R) simulations to demonstrate the theory in practice. Contains step by step commentary and analysis of the obtained simulation results in order to provide a comprehensive and structured learning tool. Covers a wide range of topics including shadowing effects, coverage and interference. Multipath Narrowband channel, Multipath Wideband channel, propagation in micro and picocells, the land mobile satellite (LMS) channel, the directional Multipath channel and MIMO and propagation effects in fixed radio links (terrestrial and satellite). The book comes with an accompanying website that contains the MATLAB(R) simulations and allows readers to try them out themselves. Well suited for lab-use, as reference and as a self-learning tool both for advanced students and professionals Modeling the Wireless Propagation Channel: A simulation approach with MATLAB(R) will be best suited for postgraduate (Masters and PhD) students and practicing engineers in telecommunications and electrical engineering fields, who are seeking to familiarise themselves with the topic without too many formulas. The book will also be of interest to network engineers, system engineers and researchers.