

1. Record Nr.	UNINA9910807655403321
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Titolo	Radio propagation measurement and channel modelling // Sana Salous
Pubbl/distr/stampa	Hoboken : , : John Wiley & Sons Inc., , 2013 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2013]
ISBN	1-118-50228-0 1-118-50232-9 1-299-31598-4 1-118-50231-0
Descrizione fisica	1 online resource (423 p.)
Disciplina	621.3841/1
Soggetti	Shortwave radio - Transmitters and transmission - Measurement Radio wave propagation - Measurement Wireless communication systems
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	4.12.1 Matched Filter Detector 199 -- 4.12.2 Heterodyne Detector of FMCW Signals 203 -- 4.12.3 Practical Consideration of Detection Methods of FMCW Signals 207 -- 4.13 Range Doppler Ambiguity of Chirp Signals: Advanced Waveforms 207 -- 4.13.1 Three-Cell Structure 208 -- 4.13.2 Multiple WRF Structure 210 -- 4.13.3 Target Movement 211 -- 4.13.4 Doppler Shift Estimation 211 -- 4.14 Architectures of Chirp Sounders 213 -- 4.15 Monostatic Operation of FMCW Sounder/Radar 217 -- 4.15.1 Reduction of Effective Mean Received Power 218 -- 4.15.2 Spreading of the Spectrum and Interference 219 -- 4.15.3 Blind Ranges and Range Ambiguity 220 -- 4.15.4 Selection Criteria for Switching Sequences 221 -- 4.15.5 Considerations for Edge Weighting 224 -- 4.15.6 Length of the Window 224 -- 4.15.7 Window Functions 224 -- 4.15.8 Interpolation and Quantization 225 -- 4.16 Single and Multiple Antenna Sounder Architectures 225 -- 4.16.1 Single Input Single Output (SISO) Sounders 226 -- 4.16.2 MISO, SIMO and MIMO Measurements with SISO Sounders 227 -- 4.16.3 Semi-Sequential MIMO Sounders 228 -- 4.16.4 Parallel MIMO Sounders 228

-- 4.17 Ultra-wideband (UWB) Channel Sounders 232 -- 4.18 Sounder Design 233 -- 4.18.1 Sounder for Indoor Radio Channels in the UHF Band 239 -- 4.18.2 Sounder for UHF Frequency Division Duplex Links for Outdoor Radio Channels 239 -- 4.18.3 Sounder for Multiple Frequency Links for Outdoor Radio Channels 239 -- 4.19 Performance Tests of a Channel Sounder and Calibration 239 -- 4.19.1 Ambiguity Function 241 -- 4.19.2 Linearity Test 242 -- 4.19.3 Frequency Response 243 -- 4.19.4 Calibration of Automatic Gain Control 243 -- 4.19.5 Isolation between Multiple Channels 245 -- 4.19.6 Sensitivity and Dynamic Range 246 -- 4.19.7 Effect of Interference on the Dynamic Range 249 -- 4.19.8 Stability of Frequency Sources 251 -- 4.19.9 Temperature Variations 251 -- 4.20 Overall Data Acquisition and Calibration 251 -- References 251 -- 5 Data Analysis 255 -- 5.1 Data Validation 255 -- 5.2 Spectral Analysis via the Discrete Fourier Transform 256.

5.3 DFT Analysis of the FMCW Channel Sounder Using a Heterodyne Detector 259 -- 5.3.1 Snapshot Impulse Response Analysis 260 -- 5.3.2 Frequency Response Analysis 263 -- 5.3.3 Estimation of the Delay Doppler Function 266 -- 5.4 Spectral Analysis of Network Analyzer Data via the IDFT 268 -- 5.5 DFT Analysis of CW Measurements for Estimation of the Doppler Spectrum 268 -- 5.6 Estimation of the Channel Frequency Response via the Hilbert Transform 269 -- 5.7 Parametric Modelling 269 -- 5.7.1 ARMA Modelling 271 -- 5.7.2 AR Modelling 271 -- 5.7.3 Practical Implementation of Parametric Modelling 271 -- 5.7.4 Parametric Modelling for Interference Reduction 272 -- 5.7.5 Parametric Modelling for Enhancement of Multipath Resolution 274 -- 5.8 Estimation of Power Delay Profile 276 -- 5.8.1 Noise Threshold 277 -- 5.8.2 Stationarity Test 280 -- 5.9 Small-Scale Characterization 286 -- 5.9.1 Time Domain Parameters 287 -- 5.9.2 Estimation of the Coherent Bandwidth 288 -- 5.9.3 Statistical Modelling of the Time Variations of the Channel Response 291 -- 5.10 Medium/Large-Scale Characterization 292 -- 5.10.1 CDF Representation 292 -- 5.10.2 Estimation of Path Loss 293 -- 5.10.3 Relating RMS Delay Spread to Path Loss and Distance 296 -- 5.10.4 Frequency Dependence of Channel Parameters 299 -- 5.11 Multiple Antenna Array Processing for Estimation of Direction of Arrival 301 -- 5.11.1 Theoretical Considerations for the Estimation of Direction of Arrival 303 -- 5.11.2 Spectral-Based Array Processing Techniques 308 -- 5.11.3 Parametric Methods 312 -- 5.11.4 Joint Parametric Techniques 316 -- 5.12 Practical Considerations of DOA Estimation 319 -- 5.12.1 Choice of Antenna Array 320 -- 5.12.2 Array Calibration 322 -- 5.12.3 Estimation of Direction of Arrival 326 -- 5.12.4 Estimation of Direction of the Arrival/Direction of Departure 331 -- 5.13 Estimation of MIMO Capacity 333 -- References 333 -- 6 Radio Link Performance Prediction 337 -- 6.1 Radio Link Simulators 337 -- 6.2 Narrowband Stochastic Radio Channel Simulator 338.

6.2.1 Quadrature Amplitude Modulation Simulator 339 -- 6.2.2 Filtered Noise Method 339 -- 6.2.3 Sum of Sinusoids Method (Jakes Method) 341 -- 6.2.4 Frequency Domain Method 343 -- 6.2.5 Reverberation Chambers (or Mode-Stirred Chambers) 344 -- 6.3 Wideband Stochastic Channel Simulator 346 -- 6.3.1 Time Domain Channel Simulators 346 -- 6.3.2 Frequency Domain Simulators 348 -- 6.4 Frequency Domain Implementation Using Fast Convolution 349 -- 6.5 Channel Block Realization from Measured Data 351 -- 6.6 Theoretical Prediction of System Performance in Additive White Gaussian Noise 353 -- 6.6.1 Matched Filter and Correlation Detector 354 -- 6.6.2 Bit Error Rate of the Matched Filter Detector in AWGN 356 -- 6.6.3 Bit Error Rate with

Noncoherent Detectors 357 -- 6.6.4 Comparison of BER of Coherent and Noncoherent Detectors 358 -- 6.6.5 Higher Order Modulation 358 -- 6.7 Prediction of System Performance in Fading Channels 361 -- 6.7.1 Narrowband Signals 361 -- 6.7.2 Wideband Signals 363 -- 6.8 Bit Error Rate Prediction for Wireless Standards 364 -- 6.8.1 IEEE 802.16-d Standard 365 -- 6.8.2 IEEE 802.11-a Standard 371 -- 6.8.3 Third Generation WCDMA Standard 372 -- 6.9 Enhancement of Performance Using Diversity Gain 376 -- 6.9.1 Diversity Combining Methods 377 -- 6.9.2 Diversity Gain Prediction of Rayleigh Fading Channels from Measurements in a Reverberation Chamber 382 -- References 383 -- Appendix 1 385 -- A.1 Probability Distribution Functions 385 -- A.2 The Gaussian (Normal) Distribution 385 -- A.3 The Rayleigh Distribution 387 -- A.4 The Rician Distribution 388 -- A.5 The Nakagami m-Distribution 389 -- A.6 The Weibull Distribution 390 -- A.7 The Log-Normal Distribution 390 -- A.8 The Suzuki Distribution 391 -- A.9 The Chi-Square Distribution 391 -- References 391 -- Appendix 2 393 -- Index 395.

-- Foreword xiii -- Preface xv -- List of Symbols xvii -- Acronyms and Abbreviations xix -- 1 Radio Wave Fundamentals 1 -- 1.1 Maxwell's Equations 1 -- 1.2 Free Space Propagation 3 -- 1.3 Uniform Plane Wave Propagation 3 -- 1.4 Propagation of Electromagnetic Waves in Isotropic and Homogeneous Media 5 -- 1.5 Wave Polarization 8 -- 1.6 Propagation Mechanisms 11 -- 1.6.1 Reflection by an Isotropic Material 12 -- 1.6.2 Reflection/Refraction by an Anisotropic Material 18 -- 1.6.3 Diffuse Reflection/Scattering 19 -- 1.6.4 Diffraction 20 -- 1.7 Propagation in the Earth's Atmosphere 21 -- 1.7.1 Properties of the Earth's Atmosphere 21 -- 1.7.2 Radio Waves in the Ionosphere 25 -- 1.8 Frequency Dispersion of Radio Waves 29 -- 1.8.1 Phase Velocity versus Group Velocity 30 -- 1.8.2 Group Path versus Phase Path 31 -- 1.8.3 Phase Path Stability: Doppler Shift/Dispersion 32 -- References 33 -- 2 Radio Wave Transmission 35 -- 2.1 Free Space Transmission 35 -- 2.1.1 Path Loss 35 -- 2.1.2 Relating Power to the Electric Field 37 -- 2.2 Transmission Loss of Radio Waves in the Earth's Atmosphere 38 -- 2.2.1 Attenuation due to Gases in the Lower Atmosphere and Rain: Troposphere 38 -- 2.2.2 Attenuation of Radio Waves in an Ionized Medium: Ionosphere 41 -- 2.3 Attenuation Due to Propagation into Buildings 43 -- 2.4 Transmission Loss due to Penetration into Vehicles 46 -- 2.5 Diffraction Loss 49 -- 2.5.1 Fundamentals of Diffraction Loss: Huygen's Principle 49 -- 2.5.2 Diffraction Loss Due to a Single Knife Edge: Fresnel Integral Approach 50 -- 2.6 Diffraction Loss Models 54 -- 2.6.1 Single Knife Edge Diffraction Loss 54 -- 2.6.2 Multiple Edge Diffraction Loss 55 -- 2.7 Path Loss Due to Scattering 57 -- 2.8 Multipath Propagation: Two-Ray Model 57 -- 2.8.1 Two-Ray Model in a Nondispersive Medium 58 -- 2.8.2 Two-Ray Model due to LOS and Ground Reflected Wave: Plane Earth Model 59 -- 2.8.3 Two-Ray Propagation via the Ionosphere 63 -- 2.9 General Multipath Propagation 66 -- 2.9.1 Time Dispersion due to Multipath Propagation 66. -- 2.9.2 Effects of Multipath Propagation in Frequency, Time and Space 69 -- 2.10 Shadow Fading: Medium Scale 77 -- 2.11 Measurement-Based Large-Scale Path Loss Models 78 -- References 82 -- 3 Radio Channel Models 85 -- 3.1 System Model for Ideal Channel: Linear Time-Invariant (LTI) Model 85 -- 3.2 Narrowband Single Input / Single Output Channels 87 -- 3.2.1 Single-Path Model 87 -- 3.2.2 Multipath Scattering Model 88 -- 3.3 Wideband Single Input / Single Output Channels 93 -- 3.3.1 Single-Path Time-Invariant Frequency Dispersive Channel Model 93 -- 3.3.2 Single-Path Time-Variant Frequency Dispersive Channel 98 -- 3.3.3 Multipath Model in a Nonfrequency

Dispersive Time-Invariant Channel 99 -- 3.3.4 Multipath Propagation in a Nonfrequency Dispersive Time-Variant Channel 104 -- 3.3.5 Multipath Propagation in a Frequency Dispersive Time-Variant Channel 106 -- 3.4 System Functions in a Linear Randomly Time-Variant Channel 106 -- 3.5 Simplified Channel Functions 108 -- 3.5.1 The Wide-Sense Stationary (WSS) Channel 108 -- 3.5.2 The Uncorrelated Scattering Channel (US) 109 -- 3.5.3 The Wide-Sense Stationary Uncorrelated Scattering Channel (WSSUS) 109 -- 3.6 Coherence Functions 110 -- 3.7 Power Delay Profile and Doppler Spectrum 111 -- 3.8 Parameters of the Power Delay Profile and Doppler Spectrum 111 -- 3.8.1 First and Second Order Moments 111 -- 3.8.2 Delay Window and Delay Interval 114 -- 3.8.3 Angular Dispersion 115 -- 3.9 The Two-Ray Model Revisited in a Stochastic Channel 115 -- 3.10 Multiple Input / Multiple Output Channels 115 -- 3.10.1 Desirable Channel Properties for Narrowband MIMO Systems 116 -- 3.10.2 MIMO Capacity for Spatial Multiplexing 118 -- 3.11 Capacity Limitations for MIMO Systems 120 -- 3.12 Effect of Correlation Using Stochastic Models 120 -- 3.12.1 Capacity Expressions Based on Stochastic Correlation Models 121 -- 3.12.2 Capacity Expressions Based on Uniform and Exponential Correlation Models 122 -- 3.12.3 The Kronecker Stochastic Model 123 -- 3.13 Correlation Effects with Physical Channel Models 123. 3.13.1 Distributed Scattering Model 124 -- 3.13.2 Single-Ring Model 125 -- 3.13.3 Double-Ring Model 126 -- 3.13.4 COST 259 Models 127 -- 3.13.5 Multidimensional Parametric Channel Model 127 -- 3.13.6 Effect of Antenna Separation, Antenna Coupling and Angular Spread on Channel Capacity 128 -- 3.13.7 Effect of Mutual Coupling 130 -- 3.14 Effect of Number of Scatterers on Channel Capacity 134 -- 3.14.1 Free Space Propagation 135 -- 3.14.2 Limited Number of Multipath Components 136 -- 3.15 Keyholes 137 -- 3.16 Rician Channels 141 -- 3.17 Wideband MIMO Channels 143 -- 3.17.1 Wideband Channel Model 145 -- References 145 -- 4 Radio Channel Sounders 149 -- 4.1 Echoes of Sound and Radio 149 -- 4.2 Definitions and Objectives of Radio Sounders and Radar 151 -- 4.2.1 Modes of Operation 151 -- 4.2.2 Basic Parameters 152 -- 4.3 Waveforms 152 -- 4.4 Single-Tone CW Waveforms 153 -- 4.4.1 Analysis of a Single-Tone System 153 -- 4.5 Single-Tone Measurements 158 -- 4.5.1 Measurement Configurations 158 -- 4.5.2 Triggering of Data Acquisition 160 -- 4.5.3 Strategy of CW Measurements 162 -- 4.6 Spaced Tone Waveform 164 -- 4.7 Pulse Waveform 166 -- 4.7.1 Properties of the Pulse Waveform 167 -- 4.7.2 Factors Affecting the Resolution of Pulse Waveforms 171 -- 4.7.3 Typical Configuration of a Pulse Sounder 171 -- 4.7.4 Practical Considerations for Pulse Sounding 171 -- 4.8 Pulse Compression Waveforms 174 -- 4.8.1 Ideal Correlation Properties of Pulse Compression Sounding Waveforms 175 -- 4.8.2 Pulse Compression Detectors 177 -- 4.8.3 Comment on Pulse Compression Detectors 180 -- 4.9 Coded Pulse Signals 182 -- 4.9.1 Barker Codes (1953) 182 -- 4.9.2 PRBS Codes 184 -- 4.9.3 PRBS Related Codes: Gold Codes 192 -- 4.9.4 Kasami Code 194 -- 4.9.5 Loosely Synchronous Codes 196 -- 4.10 Serial Correlation Detection of Coded Transmission 196 -- 4.10.1 Sliding Correlator 196 -- 4.10.2 Stepped Cross Correlator 198 -- 4.11 Comment Regarding Coded Transmission 198 -- 4.12 Frequency Modulated Continuous Wave (FMCW) Signal 199.

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## Sommario/riassunto

A practical guide to radio channel measurement techniques Whilst there are numerous books describing modern wireless communication systems that contain overviews of radio propagation and radio channel modelling, few contain detailed information on the design, implementation and calibration of radio channel measurement equipment, the planning of experiments and the in depth analysis of

measured data. This work redresses that balance. Beginning with an explanation of the fundamentals of radio wave propagation, the book progresses through a series of topics, including the measurement of radio channel characteristics, radio channel sounders, measurement strategies, data analysis techniques and radio channel modelling. Application of results for the prediction of achievable digital link performance are discussed with examples pertinent to single carrier, multi-carrier and spread spectrum radio links. It addresses specifics of communications in various different frequency bands for both long range and short range fixed and mobile radio links. Key features: . Focuses on radio channel measurements and characterization with analysis of MIMO channels. Discusses the physical and technical considerations involved in the proper assessment of radio channel characteristics for efficient radio system planning, design, and implementation. Provides in-depth information on the planning of experiments and the detailed analysis of measured data from radio propagation and channel modelling. Unique practical approach describing how to design and implement channel sounders.

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