1. Record Nr. UNINA9910809960303321

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Titolo	Introduction to CDMA wireless communications / / Mosa Ali Abu-Rgheff
Pubbl/distr/stampa	Amsterdam ; ; Boston, : Academic Press, 2007
ISBN	1-281-02925-4 9786611029258 0-08-055040-1
Edizione	[1st ed.]
Descrizione fisica	1 online resource (631 p.)
Disciplina	621.3845
Soggetti	Code division multiple access Wireless communication systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"Mobile communications"--P. [4] of cover.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Front Cover; Introduction to CDMA Wireless Communications; Copyright Page; Contents; Preface; Chapter 1 Introduction; 1.1 Development of CDMA Wireless Communications; 1.2 Basic digital communication system; 1.3 Sources of noise; 1.4 Properties of the probability density functions; 1.5 Examples of probability distributions; 1.5.1 Uniform distribution; 1.5.2 Gaussian (normal) distribution; 1.5.3 Rayleigh and Rice distributions; 1.5.4 Binomial distribution; 1.5.5 Chi-square distribution; 1.6 Equivalent noise bandwidth; 1.7 Linear filtering of white noise; 1.7.1 White noise differentiation 1.7.2 White noise integration1.8 Narrowband Gaussian noise; 1.9 Sinusoidal signal plus narrowband noise; 1.10 Fourier analysis; 1.10.1 Fourier series; 1.10.2 Fourier transform; 1.10.3 Fast Fourier transform; 1.11 Signals convolution; 1.12 Signals deconvolution; 1.13 Signals correlation; 1.14 Spectral density of discrete signals; 1.15 Summary; Problems; Bibliography; Appendix 1.A; Chapter 2 Introduction to Digital Communications; 2.1 Introduction; 2.2 Review of digital transmission theory; 2.2.1 Data transmission codes; 2.2.2 General theory of digital transmission 2.2.3 Statistical detection theory for binary transmission2.2.4 Optimum threshold voltage; 2.2.5 Minimum probability of error; 2.2.6 Principles of matched filtering; 2.2.7 Matched filter impulse response h(t); 2.2.8

Probability of error at the output of matched filter; 2.2.9 Binary Nyquist pulse signalling; 2.3 Channel equalizing; 2.3.1 Linear equalizers; 2.3.2 Non-linear equalizers; 2.4 Digital modulation/demodulation schemes used in CDMA systems; 2.4.1 Quadrature/Offset Phase Shift Keying (QPSK/OQPSK) modulation system; 2.5 RAKE receivers; 2.6 Channel forward error correction coding
2.6.1 The convolutional encoder2.6.2 Convolutional coding representation; 2.6.3 Viterbi decoding algorithm; 2.6.4 Probability of error using VA decoding; 2.6.5 Turbo encoding and decoding; 2.6.6 Turbo code construction; 2.6.7 Turbo code interleavers; 2.6.8 Turbo code tail-biting; 2.6.9 Turbo decoding; 2.6.10 The MAP algorithm; 2.7 Channel capacity; 2.8 Ideal communication system; 2.9 Summary; Laboratory Sessions; Laboratory session I: Matched filtering; Laboratory session II: Signal equalization; Problems; References; Chapter 3 Fundamentals of Spread-Spectrum Techniques
3.1 Historical background3.2 Benefits of spread-spectrum technology; 3.2.1 Avoiding interception; 3.2.2 Privacy of transmission; 3.2.3 Resistance to fading; 3.2.4 Accurate low power position finding; 3.2.5 Improved multiple access scheme; 3.3 Principles of spread-spectrum communications (Scholtz, 1977); 3.4 Most common types of spread-spectrum systems; 3.4.1 DS-SS systems; 3.4.2 Frequency hopping spread-spectrum system; 3.4.3 Hybrid DS/FH systems; 3.5 Processing gain; 3.6 Correlation functions (Sarwate and Pursley, 1980); 3.6.1 Periodic correlation function
3.6.2 Aperiodic correlation function

Sommario/riassunto

The book gives an in-depth study of the principles of the spread spectrum techniques and their applications in mobile communications. It starts with solid foundations in the digital communications that are essential to unequivocal understanding of the CDMA technology, and guides the reader through the fundamentals and characteristics of cellular CDMA communications. Features include:* A very clear and thorough description of the principles and applications of spread spectrum techniques in multi-user mobile communications.* Matlab-based worked examples, exercises and practi