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Autore	Paxson Daniel E.
Titolo	Numerical analysis of a rotating detonation engine in the relative reference frame // Daniel E. Paxson
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Descrizione fisica	1 online resource (16 pages) : color illustrations
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Soggetti	Code division multiple access Wireless communication systems
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Muller Code -- 4.3 Noncoherent Reception of Encoded DS CDMA Signals -- 4.4 Introduction to Convolutional Coding -- 4.5 Convolutional Coding in DS CDMA Systems -- 4.6 Orthogonal Convolutional Codes -- 4.7 Coding in FH and PPH CDMA Systems -- 4.8 Concatenated Codes in CDMA Systems -- 4.9 Comments -- Problems -- 5 CDMA Communication on Fading Channels -- 5.1 Statistical Models of Multipath Fading -- 5.2 Coherent Reception of Faded Signals -- 5.3 Forward Transmission over a Multipath Faded Channel in a DS CDMA System -- 5.4 Reverse Transmission over a Multipath Faded Channel in a DS CDMA System -- 5.5 Interleaving for a Rayleigh Channel -- 5.6 FH SS Communication over Rayleigh Faded Channels -- 5.7 Comments -- Problems -- 6 Pseudorandom Signal Generation -- 6.1 Pseudorandom Sequences and Signals. 6.2 Finite-Field Arithmetic -- 6.3 Maximum-Length Linear Shift Registers -- 6.4 Randomness Properties of Maximal-Length Sequences -- 6.5 Generating Pseudorandom Signals (Pseudonoise) from Pseudorandom Sequences -- 6.6 Other Sets of Spreading Sequences -- 6.7 Comments -- Problems -- 7 Synchronization of Pseudorandom Signals -- 7.1 Hypothesis Testing in the Acquisition Process -- 7.2 Performance of the Hypothesis Testing Device -- 7.3 The Acquisition Procedure -- 7.4 Modifications of the Acquisition Procedure -- 7.5 Time Tracking of SS Signals -- 7.6 Coherent Reception of Uplink Transmitted Signals in the DS CDMA System -- 7.7 Comments -- Problems -- 8 Information-Theoretical Aspects of CDMA Communications -- 8.1 Shannon Capacity of DS CDMA Systems -- 8.2 Reliability Functions -- 8.3 Capacity of FH CDMA Systems -- 8.4 Uplink Multiple-Access Channels -- 8.5 Downlink Multiple-Access Channels -- 8.6 Multiuser Communication in the Rayleigh Fading Channels -- 8.7 Comments -- Problems -- 9 CDMA Cellular Networks -- 9.1 General Aspects of CDMA Cellular Networks -- 9.2 Other-Cell Relative Interference Factors -- 9.3 Handoff Strategies -- 9.4 Power Control -- 9.5 Erlang Capacity of CDMA System -- 9.6 Interference Cancellation in the Reverse Link of the DS CDMA System -- 9.7 User Coordination in the Forward Link of the DS CDMA System -- 9.8 Third-Generation Wireless Cellular Networks -- 9.9 Comments -- Problems -- Appendix A: Analysis of the Moments of the Decision Statistics for the FH CDMA Communication System -- Bibliography -- Index.

Sommario/riassunto

A comprehensive introduction to CDMA theory and application Code division multiple access (CDMA) communication is rapidly replacing time- and frequency-division methods as the cornerstone of wireless communication and mobile radio. Theory of Code Division Multiple Access Communication provides a lucid introduction and overview of CDMA concepts and methods for both the professional and the advanced student. Emphasizing the role CDMA has played in the development of wireless communication and cellular mobile radio systems, the author leads you through the basic concepts of mobile radio systems and considers the different principles of multiple access-time division, frequency division, and code division. He then analyzes three major CDMA systems-direct sequence (DS) CDMA systems, frequency hopped (FH) CDMA systems, and pulse position hopped (PPH) CDMA systems. Other topics covered include: * Spread spectrum (SS) technology * Forward error control coding * CDMA communication on fading channels * Pseudorandom signals * Information theory in relation to CDMA communication * CDMA cellular networks Complete with useful appendices providing analyses of the moments of CDMA system decision statistics, Theory of Code Division Multiple Access Communication is a ready reference for every engineer seeking an understanding of the history and concepts of this key communications

technology.
